

Appendix

Appendix A. 2009 Certified EIR

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Draft Environmental Impact Report Edgewater Communities City of Chino, California

State Clearinghouse Number 2006121093

Prepared for:



City of Chino
Community Development Department
13220 Central Avenue
Chino, California 91710

Prepared by:



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Irvine, CA 92602

December 8, 2008

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State Clearinghouse # 2006121093

Prepared for:



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December 8, 2008

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ACRONYMS AND ABBREVIATIONS

>	right turn overlap
>>	free right turn
§	Section
µg/m ³	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
AG	Agricultural (land use designation)
AG/OS-N	Agricultural and Open Space Natural (land use designation)
AIC	Archaeological Information Center
AM	morning (transportation)
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ARB	Air Resources Board
AST	aboveground storage tank
AWS	all way stop
Basin	Chino Groundwater Basin
bgs	below ground surface
BLM	Bureau of Land Management
BMP	best management practices
BUOW	burrowing owl
CARB	California Air Resources Board
CBDA	Chino Basin Dairy Area
CBOC	California Burrowing Owl Consortium
CBWM	Chino Basin Watermaster
CCIP	Chino Creek Integrated Plan
CCR	California Code of Regulations
CDA	Chino Basin Desalter Authority
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
cf	cubic feet
CFC	Chlorofluorocarbon
CGS	California Geological Survey
CIW	Correctional Institution for Women
CLOMR	Conditional Letter of Map Revision
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CSC	California Special Concern (CDFG sensitive wildlife species designation)
CSS	cross street stop

CUSD	Chino Unified School District
CVIFD	Chino Valley Independent Fire District
CVUSD	Chino Valley Unified School District
CWA	Federal Clean Water Act
dB	decibel
dBA	A-weighted decibel (scale)
DMG	Division of Mines and Geology
DOGGR	Division of Oil, Gas, and Geothermal Resources
DPM	Diesel particulate matter
Draft EIR	Draft Environmental Impact Report
DTSC	California Department of Health Services - Toxic Substances Control Division
du	dwelling unit
dus	dwelling units
EB	eastbound
EFZ	Earthquake Fault Zone
EPA	U.S. Environmental Protection Agency
ER	Estate Residential (land use designation)
ESA	Environmental Site Assessment
EW	east-west
FE	Federal Endangered (USFWS sensitive wildlife species designation)
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farming Mapping and Monitoring Program
FT	Federal Threatened (USFWS sensitive wildlife species designation)
Fwy	Freeway (transportation)
GLO	General Land Office
GMC	Growth Management Chapter
gpm	gallons per minute
HFC	hydrofluorocarbon
HHW	household hazard waste
IEUA	Inland Empire Utilities Agency
kv	kilovolt
kwh	kilowatt hour
kwh/du/yr	kilowatts per dwelling unit per year
kwh/sf/yr	kilowatt hours per square foot per year
L	left (transportation)
lbs/du/day	pounds per dwelling unit per day
lbs/sf/day	pounds per square feet per day
LBV	least Bell's vireo
LCC	Land Capability Classification
L _{dn}	day/night average sound level
LE	Land Evaluation
L _{eq}	equivalent noise level
LESA	California Agricultural Land Evaluation and Site Assessment
L _{max}	maximum noise level

LOMR	Letter of Map Revision
LOS	level of service
LST	localized significance thresholds
mcf/yr	million cubic feet per year
MCWRP	Mill Creek Wetland Recreation Plan
MDD	Maximum Day Demand
mf du	multi-family dwelling unit
MM	Mitigation Measure
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
msl	mean sea level
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NB	northbound
NFIP	National Flood Insurance Program
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NS	north-south
OCS	Orange County Sanitation District
OCWD	Orange County Water District
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OS-N	Open Space-Natural (land use designation)
OS-R	Open Space-Recreational (land use designation)
OS-W	Open Space-Water (land use designation)
PA	Planning Area
PBMP	Prado Basin Master Plan
PCB	Polychlorinated Biphenyls
PCE	passenger car equivalents (noise)
PCE	primary constituent elements (biological resources)
PFC	perfluorocarbon
PHGA	peak horizontal ground acceleration
PM	afternoon/evening (transportation)
PM ₁₀	particulate matter, 10 microns or less in diameter
PM _{2.5}	particulate matter, 2.5 microns or less in diameter
PPA	Preferred Plan Alternative
ppm	parts per million
PPV	peak particle velocity
Project	Edgewater Communities Project
psi	per square inch
PVC	polyvinyl chloride
PWQMP	Preliminary Water Quality Management Plan
R	right (transportation)

RCPG	Regional Comprehensive Plan and Guide
RMP	Resources Management Plan
ROG	reactive organic gases
RP	Regional Pumping Facility
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
RWQCB	Santa Ana Regional Water Quality Control Board
SA	Site Assessment
SANBAG	San Bernardino Associated Governments
SAR	Santa Ana River
SARI	Santa Ana Regional Interceptor
SARI	Santa Ana River Interceptor Sewer Line
SARWQCB	Santa Ana Regional Water Quality Control Board
SAWA	Santa Ana Watershed Association
SB	Senate Bill
SB	southbound
SBCFD	San Bernardino County Fire Department
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison Company
SE	State Endangered (CDFG sensitive wildlife species designation)
sfd	single-family dwelling
sf	square feet
SF6	sulfur hexafluoride
SFP	Fully Protected (CDFG sensitive wildlife species designation)
SIP	State Implementation Plans
SMARA	Surface Mining and Reclamation Act
SO _x	sulfur oxides
SR	State Route
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
T	through (transportation)
TDM	Transportation Demand Management
TDS	total dissolved solids
TPD	tons per day
TPH	total petroleum hydrocarbons
TS	traffic signal
TSS	total suspended solids
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
V/C	volume-to-capacity ration
VOC	volatile organic compounds
VPH	vehicles per hour
Waste Management	Waste Management of the Inland Empire

Water Utility	City of Chino Water Utility
WB	westbound
WDR	Waste Discharge Requirements
WFA	Water Facilities Authority
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment
yr	year
ZOI	Zone of Influence

SECTION 1: INTRODUCTION

1.1 - Overview, Purpose, and Authority of the EIR

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with implementation of the Edgewater Communities Project (Project), State Clearinghouse No. 2006121093. This document is prepared in conformance with CEQA (California Public Resources Code, § 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, § 15000 et seq.), and City of Chino and County of San Bernardino rules and regulations. This Draft EIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the Edgewater Communities Project.

1.1.1 - Overview

The proposed Edgewater Communities Project is a water-oriented residential development planned to contain: 1) a range of residential densities; 2) five man-made lakes; 3) natural habitat areas; 4) open space areas accommodating active and passive recreational uses and incorporating multi-purpose trails capable of accommodating pedestrian and bicycle transit, as well as equestrian trails in some locations; and 5) parcels designated for a church, private school and museum/retail uses. A total of 1,074 dwelling units (du) are planned. A complete description of the Project is contained in Section 3, Project Description.

1.1.2 - Purpose and Authority

In March 2003, the City of Chino approved The Preserve Specific Plan to guide development of a 5,435-acre planning area known as Chino Subarea 2. Subarea 2 was annexed by the City of Chino on July 11, 2003. The plan for The Preserve as approved allowed up to 9,779 dwelling units on 1,168 acres; 695 acres of business uses (Community Core, Light Industrial, Airport-Related, Regional Commercial, Neighborhood Commercial); 586 acres of Public Facilities and Rights-of-ways; and approximately 2,987 acres in Open Space (Recreation, Agricultural and Natural Open Space). The Specific Plan was accompanied by a certified Program EIR (SCH # 2000121036), which evaluated the environmental impacts of buildout of the Chino Subarea 2 planning area pursuant to the approved Specific Plan.

CEQA § 15152 addresses tiering, referring to “...using the analysis of general matters contained in a broader EIR ...with later EIRs and negative declarations on narrower projects...and concentrating the later EIR or negative declaration solely on the issue specific to the later project.” CEQA § 15152 (e) further states, however, that tiering under this section “...shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located...” Actions required for approval of the Edgewater Communities Project include: 1) a General Plan Amendment to reflect the land uses proposed for the site by the Edgewater Project; and

2) a Specific Plan Amendment to change the land use designation for the Project site from Open Space-Recreation, Agricultural & Open Space Natural, Open Space Natural, and Estate Residential to allow for proposed residential, church, private school, and museum/retail uses (see Section 3.4, Intended Uses of This EIR). Tiering from the certified Program EIR for The Preserve is, therefore, not permissible under CEQA.

This Draft EIR constitutes a project-level document addressing the environmental effects of the Edgewater Communities Project. The environmental impacts of the proposed Project are analyzed in the EIR to the degree of specificity appropriate, in accordance with § 15146 of the CEQA Guidelines. This Draft EIR addresses the potentially significant adverse environmental impacts that may be associated with the planning, construction, or operation of the Project. It also identifies appropriate and feasible mitigation measures and alternatives that may be adopted to significantly reduce or avoid these impacts.

CEQA requires that an EIR contain, at a minimum, certain specific elements. These elements, contained in this Draft EIR, are:

- Table of Contents
- Executive Summary
- Project Description
- Environmental Setting, Environmental Impacts, and Mitigation Measures
- Cumulative Impacts
- Significant Unavoidable Adverse Impacts
- Alternatives to the Proposed Project
- Growth-Inducing Impacts
- Effects Found Not To Be Significant
- Areas of Known Controversy
- Organizations and Persons Consulted

1.1.3 - Lead Agency Determination

The City of Chino is designated as the Lead Agency for the Project. CEQA Guidelines § 15367 defines the Lead Agency as “. . . the public agency which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this Draft EIR in the decision-making or permit process and consider the information in this Draft EIR along with other information that may be presented during the CEQA process.

This Draft EIR was prepared by a consultant under contract to the City of Chino. Prior to public review, it was extensively reviewed and evaluated by City of Chino Staff. Lists of organizations and persons consulted and the report preparation personnel are provided in Sections 9 and 10 of this Draft EIR, respectively.

1.1.4 - Project of Statewide, Regional, or Areawide Significance

Section 15206 of the CEQA Guidelines sets forth criteria for determining if a project is of statewide, regional, or areawide significance. The criteria that apply to the Edgewater Communities Project are as follows:

- The Project proposes to amend a General Plan;
- The Project has effects on the environment that extend beyond the jurisdiction it is located in;
- The Project contains more than 500 dwelling units;
- The Project would occupy more than 40 acres of land; and
- The Project could adversely affect sensitive wildlife habitats.

The Project is considered to have statewide, regional, or areawide significance. As such, the Draft EIR for the Project: 1) must be submitted to the State Clearinghouse for review by applicable State responsible and trustee agencies; and 2) does not qualify for shortened State Clearinghouse and applicable State responsible and trustee agency review; hence, the normal review period of 45 days will apply. Also for projects of statewide, regional, or areawide significance, the Lead Agency shall consult with transportation planning agencies and public agencies that have transportation facilities within the Lead Agency's jurisdiction which could be affected by the project.

1.2 - Scope of the EIR

This Draft EIR addresses the potential environmental effects of the proposed Project. The scope of the Draft EIR includes issues raised by agencies and the public in response to the Notice of Preparation (NOP, see Appendix A), and comments obtained during the public scoping meeting and a public meeting addressing alternative development concepts for the Project site.

1.2.1 - Potentially Significant Environmental Issues and Environmental Issues Determined To Be Not Significant

An Initial Study was not prepared concurrently with the NOP. No topical areas were, therefore, determined to be not significant through an Initial Study and eliminated from further analysis in this Draft EIR. All sixteen topical issues listed in the Environmental Checklist contained in CEQA guidelines Appendix G as well as Climate Change and Greenhouse Gases are addressed in Section 4, Environmental Impact Analysis.

1.3 - Organization of the EIR

This Draft EIR is organized into the following main sections:

- **Section 1: Introduction.** This section provides an introduction and overview describing the purpose of this Draft EIR, its scope and components, and its review and certification process.

- **Section 2: Executive Summary.** This section includes a summary of the proposed Project and alternatives to be addressed in the Draft EIR, including a summary table of Project impacts and proposed mitigation measures.
- **Section 3: Project Description.** This section includes a detailed description of the proposed Project, including its location, site, and Project characteristics. A discussion of the Project objectives, intended uses of the Draft EIR, responsible agencies, and approvals that are needed for the proposed Project are also provided.
- **Section 4: Environmental Impact Analysis.** This section analyzes the environmental impacts of the proposed Project. Impacts are organized into major topic areas. Each topic area includes a description of the environmental setting, methodology, significance criteria, impacts, mitigation measures, and significance after mitigation. The specific environmental topics that are addressed within Section 4 are as follows:
 - Section 4.1 - Aesthetics
 - Section 4.2 - Agricultural Resources
 - Section 4.3 - Air Quality
 - Section 4.4 - Biological Resources
 - Section 4.5 - Cultural Resources
 - Section 4.6 - Geology and Soils
 - Section 4.7 - Hazards/Hazardous Materials
 - Section 4.8 - Hydrology and Water Quality.
 - Section 4.9 - Land Use and Planning
 - Section 4.10 - Mineral Resources
 - Section 4.11 - Noise
 - Section 4.12 - Population and Housing
 - Section 4.13 - Public Services
 - Section 4.14 - Recreation
 - Section 4.15 - Transportation and Traffic
 - Section 4.16 - Utilities and Service Systems
 - Section 4.17 - Climate Change and Greenhouse Gases
- **Section 5: List of Mitigation Measures**
- **Section 6: Alternatives to the Proposed Project**
- **Section 7: Preferred Plan Alternative**
- **Section 8: Other CEQA Considerations**
- **Section 9: Persons and Organizations Consulted**
- **Section 10: List of Preparers**
- **Section 11: References**

- **Appendices** - Contains technical studies prepared to support the analysis. These technical studies are also available for review at the City of Chino Community Development Department, Planning Division, located at 13220 Central Avenue, Chino, California, 91710.

1.4 - Documents Incorporated by Reference

As permitted by § 15150 of the CEQA Guidelines, this Draft EIR has referenced several technical studies, analyses, and previously certified environmental documentation. Information from the documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s). The documents and other sources that have been used in the preparation of this Draft EIR include:

- City of Chino. The Preserve Chino Sphere of Influence - Subarea 2 Final EIR (State Clearinghouse No. 2000121036). March 2003.
- City of Chino and The Planning Center. The Preserve Specific Plan. March 2003.

All documents utilized in the preparation of this Draft EIR are listed in Section 11, References. In accordance with § 15150(b) of the CEQA Guidelines, these referenced documents and other sources used in the preparation of the Draft EIR are available for review at the City of Chino Community Development Department, Planning Division located at 13220 Central Avenue, Chino, California, 91710.

1.5 - Documents Prepared for the Project

The following technical studies and analyses were prepared for the proposed Edgewater Communities Project. All documents are contained within the Appendices to this Draft EIR and are also available for review at the City of Chino Community Development Department, Planning Division located at 13220 Central Avenue, Chino, California, 91710.

- Dudek. Water Supply Assessment for the Edgewater Communities. October 2007.
- FirstSearch Technology Corporation. Environmental FirstSearch Report. October 2008.
- Glenn Lukos Associates, Inc. Biological Technical Report for the Approximately 272-acre Edgewater Communities Property, Chino, San Bernardino County, California. September 2007.
- Glenn Lukos Associates, Inc. Jurisdictional Delineation of the Edgewater Lake Communities Property, a 272-Acre Property in the City of Chino, San Bernardino County, California. July 2007.
- GMU Geotechnical, Inc. Report of Phase 2 Geotech Investigation, Edgewater Development, City of Chino, California. March 2007.

- Huitt-Zollars, Inc. Hydrology and Hydraulic Calculation for City of Chino Edgewater Project. January 2008.
- Huitt-Zollars, Inc. Preliminary Water Quality Management Plan for Edgewater Lake Communities SCH 006-121093. January 2008.
- Laguna Geosciences, Inc. Phase I Environmental Site Assessment, Stueve Brothers Dairy, Chino, California. February 2004.
- Michael Brandman Associates. Agricultural Mitigation Fee Investigation. August 2008.
- Michael Brandman Associates. Air Quality Analysis. March 2008.
- Michael Brandman Associates. Preferred Plan Alternative Air Quality and Noise Technical Analyses. April 2008.
- Michael Brandman Associates. Climate Change Analysis. May 2008.
- Michael Brandman Associates. Noise Modeling. December 2007.
- Michael Brandman Associates. Phase I Cultural Survey Report. August 2007.
- Michael Brandman Associates. Phase II Cultural Resources Testing and Evaluation. October 2007.
- Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised), City of Chino, California. November 2007.
- Urban Crossroads. Edgewater Communities Project Preferred Plan Sensitivity Analysis and Fair Share Calculation Supplemental Analysis (Revised). March 2008.
- URS. Phase I Environmental Site Assessment and Phase II Soil Investigation, Stueve Brothers Dairy, 17375 Chino Corona Road, Chino, California. April 2006.

The following infrastructure technical studies were prepared to analyze incorporation of the proposed Edgewater Communities Project into existing City infrastructure plans:

- Bureau Veritas North America, Inc. Sewer Master Plan Update Report, Subareas 1 and 2 - Chino Agricultural Preserve Area. November 2007.
- Bureau Veritas North America, Inc. Storm Drain Master Plan Update Report, Subarea 2 - Chino Agricultural Preserve Area. December 2007.
- MWH. Water System Master Plan Update for the Edgewater Development. October 2007.

1.6 - Lead Agency, Applicant, and Consultant

The City of Chino is the Lead Agency in the preparation of the Draft EIR. Michael Brandman Associates (MBA) is the environmental consultant to the City of Chino for the Project. The Project applicant is Edgewater Associates I, LLC.

1.7 - Review of the Draft EIR

Upon completion of the Draft EIR, the City of Chino filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, § 21161). Concurrent with the NOC, this Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Chino Community Development Department, Planning Division, located at 13220 Central Avenue, Chino, CA 91710, and at the Chino Branch Library at 13180 Central Avenue, Chino, CA 91710. Agencies, organizations, and interested parties not previously contacted, or who did not respond to the NOP, have the opportunity to comment on the Draft EIR during the public review period for the Draft EIR.

Written comments on this Draft EIR should be addressed to:

City of Chino
Community Development Department
Planning Division
P.O. Box 667
Chino, CA 91708-0667
Attn: Michael T. Kellison, AICP, LEED AP, Senior Planner

Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and made available for review at least 10 days prior to the initial public hearing before the Planning Commission on the Project. Certification of the Final EIR will be considered by the City Council at public hearing. Comments received and the responses to comments will be included as part of the record for consideration by decision-makers for the Project.

SECTION 2: EXECUTIVE SUMMARY

2.1 - Proposed Project

The proposed Edgewater Communities Project is a water-oriented residential development planned to contain a range of residential densities, five man-made lakes, open space areas, and parcels designated for a church, private school, and museum/retail uses. Table 2-1 below provides a statistical summary of the proposed development concept. Exhibit 3-8 contained within Section 3 of this Draft EIR, Project Description contains the Project plan/land uses proposed for the Project site. Exhibit 3-9 shows The Preserve Land Use Plan with proposed Edgewater Project designations.

Table 2-1: Edgewater Communities Statistical Summary

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Total Acreage (Gross Acres)
Residential	Low Density	537	97.76	
	Medium Density	287	28.70	
	High Density	250	15.63	
Subtotal				142.09 ¹
Open Space	OS/Recreation		71.39	
	OS/Water		39.22	
	OS/Natural		20.23	
Subtotal				130.84
Total		1,074	272.93	272.93
Notes:				
¹ 2.77 acres of the 142.09-acre residential area is planned for public dedication to additional street right of way for Chino Corona Road and Cucamonga Avenue.				

Community Paseo and Open Space System. A community paseo and open space system within the Edgewater Project is planned as a system of trails and linear open spaces that connect the major features of the proposed Project with the approved features of The Preserve, providing pedestrian and bicycling opportunities within the Project site and surrounding area. The Project paseo and open space system would link the existing and planned neighborhoods within The Preserve with the open space, water, and natural features within the Project site. An urban buffer/transition area was delineated along the 566' elevation line as currently plotted to provide a transition between urban development and open space uses, acting as an urban limit line. The urban buffer/transition area would be relocated and serve as the development limit of the proposed Project. The urban buffer/transition area is planned to contain recreational trails, a landscaped barrier and transition zone leading into open space/habitat areas.

The Project has been planned to be linked via paseos and local collector roads with The Preserve Community Core, approved as part of The Preserve Specific Plan, and envisioned as a multi-purpose “promenade” to serve as the backbone of the community. The Community Core is planned to provide a mixture of entertainment, commercial, civic, cultural, educational, religious, and residential uses. The proposed Project is planned to include a concentration of residential densities oriented toward the lake/open space features, and additional church/private school and museum/retail facilities planned to be contained within the residential areas.

Water Features. The proposed Project includes five lakes (see Exhibit 3-8). The five lakes are planned to offer varying degrees of open space or recreational opportunities. No swimming or motorized boating will be allowed, but the lakes are suitable for fishing and non-motorized boating. Lake edges adjacent to residences have a greater likelihood of disruption in terms of residents and residential uses affecting biological resources; therefore, habitat and wildlife conservation areas are planned for areas adjacent to more complementary open space uses. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area; Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. (The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.) The lakes will be filled with recycled water and maintained by the Project Homeowners’ Association.

2.1.1 - Project Location

The Project site for the Edgewater Communities Project is located in the City of Chino in the extreme southwestern corner of San Bernardino County, approximately 37 miles east of the City of Los Angeles and 20 miles southwest of the City of San Bernardino (see Exhibit 3-1). The Project site, approximately 273 acres in size, is within the southerly portion of The Preserve Specific Plan area, a 5,435-acre area annexed by the City of Chino in July 2003 (see Exhibit 3-2). The precise Project location is southeast of the intersection of Chino Corona Road and Cucamonga Avenue in the City of Chino (see Exhibit 3-3). The Project site occurs on the Corona North and Prado Dam United States Geological Survey (USGS) quadrangle maps, in Sections 4 and 5 of Township 3 South, Range 7 West. The general location of the Project site can be described as follows (see Exhibits 3-1 through 3-3): 1) Additional property within The Preserve Specific Plan area within the City of Chino lies to the north; 2) California Institution for Women lies to the northwest; 3) Prado Regional Park lies to the west; 4) City of Chino Hills lies to the southwest; 5) Prado Flood Control Basin lies to the south, east, and west; 6) City of Corona and the Santa Ana River lie to the south and southeast; 7) City of Norco lies to the southeast; and 8) the unincorporated community of Eastvale in Riverside County lies to the east.

2.1.2 - Project Objectives

Specific objectives identified for the Edgewater Communities Project are:

- Implement land uses in the Edgewater Project site so that new land uses complement the existing and planned uses within The Preserve Specific Plan area.
- Design a development plan for the Edgewater Project site that integrates with The Preserve Specific Plan in terms of Development Regulations, Traffic & Circulation, Open Space System, Infrastructure, and Landscaping.
- Provide an open-space and lake-oriented community on the Project site that is designed to accommodate hillside conditions while complementing the natural, gently rolling terrain and view characteristics of the site, both within the site toward Project aesthetic features, and of distant mountain views.
- Design a development plan for the Project site that protects existing quality habitat and rehabilitates degraded habitat for plants and wildlife.
- Provide higher density residential uses within close proximity to The Preserve Community Core and to the recreational and open space amenities within the Edgewater Project to promote pedestrian connection to the amenities within the Edgewater Project and Community Core.
- Encourage walkable linkages and connectivity of the Edgewater site through land use siting, and open space and trails, resulting in enhanced access to support services and a higher level of community interaction.
- Plan and develop the Edgewater Project as a cohesive community within The Preserve with a unifying architectural and landscape design theme, utilizing variety in the design of structures within this context.
- Provide a well-planned development that generates revenue in balance with the cost of providing services.
- Provide a mix of high quality, low-, medium-, and high-density residential neighborhoods that all have access to the open space and water features of the development and are complemented by private recreational facilities, church/school, and museum/retail uses, but with an emphasis on low-density single-family, large-lot homes.
- Provide a variety of lot configurations for both attached and detached homes, including, but not limited to: zero lot line, “z” lots, and detached condominiums.
- In areas of varied topography, promote site planning techniques that accommodate the natural terrain of the site (versus a grid-like development).

2.2 - Areas of Controversy / Issues To Be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which includes the choice among alternatives and whether or how to mitigate significant impacts. The primary area of controversy/issue to be resolved associated with the Edgewater Project is whether property currently below the 566' elevation line should be allowed to be elevated above the 566' line and developed for residential purposes as part of the Edgewater Communities Project (provided a Flood Easement Exchange can be obtained from the United States Army Corps of Engineers [USACE, see Section 3]). Other issues subordinate to this primary item are whether:

- The land use designations imposed by The Preserve Specific Plan should be changed to reflect the land uses proposed for the site by the Edgewater Project; and
- The limit line for urban uses established by The Preserve Specific Plan within the Edgewater Communities Project site should be relocated to allow Project implementation.

Table 2-2, Summary of Environmental Impacts and Mitigation Measures for the Edgewater Communities Project, summarizes the detailed discussion contained in Section 4 of this Draft EIR, Environmental Impact Analysis, of Project impacts and mitigation measures. Table 2-2 lists the environmental issues, and considers those that are significant after mitigation as issues to be resolved.

2.3 - Alternatives Analyzed In This EIR

The City has included for evaluation in Section 6, Alternatives the following five alternatives:

- No Project/No Development
- No Project/Development in Accordance with Existing General Plan Designations;
- Agricultural Preservation Through Reduced Development Footprint;
- Biological Restoration; and
- View/Lake.

Section 6 of this Draft EIR provides a qualitative analysis of these five alternatives.

A sixth alternative, Preferred Plan Alternative, is analyzed in Section 7 of this Draft EIR. The Preferred Plan was developed by the Applicant to address City Staff concerns with the proposed Project design. Quantitative analyses of certain issue areas for the Preferred Plan Alternative are provided within Section 7.

CEQA Guidelines § 15126(e)(2) requires an EIR to identify an “environmentally superior alternative.” If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

Each of the proposed alternatives would have lesser environmental impacts relative to the proposed Project, with the following alternatives having the highest amount of reduced impacts: No Project/No Development (Alternative 1); No Project/Development in Accordance with Existing General Plan Designations (Alternative 2); and Agricultural Preservation Through Reduced Development Footprint (Alternative 3). As stated previously, if the No Project Alternative is environmentally superior, the EIR must also identify another environmentally superior alternative among the remaining alternatives. Based on this consideration, Alternative 3 - Agricultural Preservation Through Reduced Development Footprint is considered the environmentally superior alternative.

This alternative has lesser impacts than the proposed Project in the following areas: aesthetics; agricultural resources; air quality; biological resources; land use and planning; recreation; and transportation/traffic. Alternative 3 - Agricultural Preservation Through Reduced Development Footprint is considered the environmentally superior alternative, but does not fully implement Project objectives.

A Preferred Plan Alternative (PPA, Alternative 6), discussed in Section 7 of this Draft EIR, reflects design features, urban design concepts, and street patterns that are sensitive to the natural features of the Project site and the concerns expressed during the scoping process by the public, agency and City Staff.

The PPA includes a decrease in low-density residential acreage, an increase in medium- and high-density residential acreage, and the addition of estate residential acreage (see Section 7 for a complete discussion). The PPA is divided into 18 Planning Areas (PA) with 138.10 acres developable land, and 134.83 acres open space (recreation, water and natural), to comprise the total site acreage of 272.93 acres. The PPA also includes two access drives along Cucamonga Avenue and two along Chino Corona Road. The PPA maintains the primary entry point for the Project site along Chino Corona Road. The PPA identifies a possible location for a church and/or private school in the northeast corner of the Project site within PA-3, and museum/retail uses in the northwestern central portion of the Project site within PA-5.

The PPA includes five lakes, and establishes view corridors directed toward the five lakes as well as Mill Creek and adjacent open space natural and open space recreation areas. Medium- and high-density residential areas are located in the northernmost portion of the Project site in close proximity to The Preserve Community Core, promoting pedestrian connection to the amenities within the Community Core. Medium-density residential uses are also located in the central portion of the site. The lower density residential uses (low-density and estate residential) are oriented toward the proposed lakes and are located south of the concentration of higher density residential uses located in the northernmost portion of the site.

The PPA meets all Project objectives. Based on the analysis contained in Section 7 for the PPA, Alternative 3 is still considered the environmentally superior alternative, however.

2.4 - Summary of Environmental Impacts and Mitigation Measures

Table 2-2, Summary of Environmental Impacts and Mitigation Measures for the Edgewater Communities Project, summarizes the detailed discussion contained in Section 4 of this Draft EIR, Environmental Impact Analysis, of Project impacts and mitigation measures.

Table 2-2: Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
4.1 - AESTHETICS		
Impact 4.1-1: The Project will not have a substantial adverse effect on a scenic vista. [CEQA Aesthetic Threshold 1(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.1-2: The Project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. [CEQA Aesthetic Threshold 1(b)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.1-3: The Project will substantially degrade the existing visual character or quality of the site and its surroundings. [CEQA Aesthetic Threshold 1(c)] (PS)	Project design and design guidelines would ensure a high-quality, water-oriented residential development. Impacts to the existing visual character of the site and its surroundings will nevertheless remain significant.	Significant. [CEQA Aesthetic Threshold 1(c)]
Impact 4.1-4: The Project could create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. [CEQA Aesthetic Threshold 1(d)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.1-5: When considered on a regional or cumulative basis, the Project would have an impact on the visual character of the broader Project area. [Cumulative Aesthetics Impact] (S)	Project design and design guidelines would ensure a high-quality, water-oriented residential development. Project contribution to cumulative aesthetic impacts on existing visual character will nevertheless remain significant.	Significant. [Cumulative Aesthetics Impact]
4.2 - AGRICULTURAL RESOURCES		
Impact 4.2-1: The Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. [CEQA Agricultural Resources Threshold 2(a)] (S)	AG-1. Agricultural Land Preservation. The applicant shall mitigate the loss of 170.4 acres of agricultural lands, on a one-to-one basis, by selecting one or more of the items described below. The applicant shall submit written verification of the applicant's compliance with this mitigation measure to the Director of Community Development's satisfaction at the time of recordation of final tract maps and parcel maps for urban development or support facilities as contemplated in the proposed Project. Compliance with this condition may be phased as the Project is developed. The amount of agricultural land to be mitigated shall be	Significant. [CEQA Agricultural Resources Threshold 2(a)].

Note: (S) = Significant. (PS) = Potentially Significant. (LTS) = Less than Significant. (NI) = No Impact

Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	equal to the amount of land being developed as each phase is developed. a) Funding and/or purchase of agricultural conservation easements. Such easements shall be accepted or purchased and monitored and enforced by a land trust or another appropriate entity. Funds may be used for easement purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or b) Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California. Funds may be used for purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or c) Purchase of credits. Purchase of credits from an established agricultural farmland mitigation bank approved by an applicable governmental authority. During the life of the Project, if the City of Chino or other responsible agency adopts an agricultural land mitigation program that provides equal or more effective mitigation than the measures listed above, the applicant may choose to participate in that alternate program to mitigate loss of agricultural land impacts. Prior to participation in the alternate program, the applicant shall obtain written approval from the City of Chino agreeing to the participation, and the applicant shall submit written verification of compliance with the alternate program at the same time. Agricultural land used for mitigation shall be of at least equal agricultural classification as the land being converted, or be capable of being developed as such. Alternately stated, mitigation land shall be classified or developed as Prime Farmland, Unique Farmland, etc. (as established by the California Department of Conservation in the Farmland Mapping and Monitoring Program), the mitigation acreage being at least equivalent in classification to the converted land, or being capable of producing the same or equivalent crops as the land being converted. Completion of the selected mitigation measure, or with the Director of Community Development's approval, a combination of the selected mitigation measures, can be on qualifying agricultural land within the Chino area, or outside the area with written evidence presented by a qualified professional that the same or equivalent crops can be produced on the mitigation land.	

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.2-2: The Project would conflict with existing zoning for agricultural use. [CEQA Agricultural Resources Threshold 2(b)] (S)	No feasible mitigation to sufficiently address the proposed Project's identified conflicts with adopted City and regional policies related to agricultural resources.	Significant. [CEQA Agricultural Resources Threshold 2(b)]
Impact 4.2-3: The Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. [CEQA Agricultural Resources Threshold 2(c)] (LTS)	No further mitigation required. Mitigation measure AG-1 addresses impacts on agricultural resources.	Less than significant.
Impact 4.2-4: When considered on a regional or cumulative basis, the Project would have an impact on the conversion of significant agricultural lands to non-agricultural uses. [Cumulative Agricultural Resources Impact] (S)	Mitigation measure AG-1 addresses impacts on agricultural resources, but does not completely mitigate the Project's cumulatively significant impact on agricultural resources.	Significant. [Cumulative Agricultural Resources Impact]
4.3 - AIR QUALITY		
Impact 4.3-1: The Project would exceed the SCAQMD significance thresholds during the construction phase of the Project. [CEQA Air Quality Threshold 3(b)] (S)	AQ-1. Prior to construction of the Project, the Project proponent shall provide a Fugitive Dust Control Plan that would describe the application of standard best management practices to control dust during grading and construction. The plan shall be consistent with the South Coast Air Quality Management District (SCAQMD) requirements. The Fugitive Dust Control Plan shall be submitted to the City of Chino and SCAQMD prior to the start of grading or construction. Best management practices to be included in the Plan shall include the following: • Application of water on disturbed soils a minimum of two times per day; • Covering haul vehicles; • Replanting disturbed areas as soon as practical; • Restricting vehicle speeds on unpaved roads to 15 miles per hour; • Installing wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip; • Sweeping off site streets if silt is carried over to adjacent public thoroughfares;	Significant. [CEQA Air Quality Threshold 3(b)]

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	- Suspend grading operations when instantaneous wind gust speeds exceed 25 miles per hour; - Ensure that all trucks hauling dirt, sand, soil, or other loose materials are covered or maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114; - Cessation of grading operations during first and second stage smog alerts; and - Other measures, as deemed appropriate to the site, to control fugitive dust. AQ-2. During Project construction, construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction. AQ-3. During Project construction, the developer shall require all contractors to turn off all construction equipment when not in use. AQ-4. Prior to Project construction, the Project proponent shall provide a traffic control plan that would describe in detail safe detours around the Project construction site and provide temporary traffic control (i.e., flag person) during demolition debris transport and other construction related truck hauling activities. AQ-5. During mass grading activities, off-road construction vehicles shall: 1) be Tier II equipment; 2) be Tier III equipment; 3) utilize lean NOx catalysts; and/or 4) utilize oxidized-diesel catalysts. AQ-6. During Project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators. AQ-7. During Project construction, asphalt paving shall not take place on the same day as other activities involving off-road construction equipment. AQ-8. Installation of open-hearth wood-burning fireplaces shall be prohibited. Natural gas-burning fireplaces shall be installed where builders are including fireplaces for their projects.	
Impact 4.3-2: The Project could exceed the SCAQMD regional significance thresholds during operation. [CEQA Air Quality Threshold 3(b)] (S)		Significant. [CEQA Air Quality Threshold 3(b)]

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.3-3: The Project would not cause or contribute to a carbon monoxide violation from the Project-related and cumulative traffic during operation. [CEQA Air Quality Threshold 3(b)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.3-4: The Project could conflict with or obstruct implementation of the applicable air quality plan. [CEQA Air Quality Threshold 3(a)] (S)	Refer to mitigation measures AQ-1 through AQ-8.	Significant. [CEQA Air Quality Threshold 3(a)]
Impact 4.3-5: The Project could violate an air quality standard or contribute substantially to an existing or projected air quality violation. [CEQA Air Quality Threshold 3(b)] (S)	Refer to mitigation measures AQ-1 through AQ-7.	Significant. [CEQA Air Quality Threshold 3(b)]
Impact 4.3-6: The Project could result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). [CEQA Air Quality Threshold 3(c)] (S)	Refer to mitigation measures AQ-1 through AQ-8.	Significant. [CEQA Air Quality Threshold 3(c)]
Impact 4.3-7: The Project would expose sensitive receptors to substantial pollutant concentrations. [CEQA Air Quality Threshold 3(d)] (S)	Mitigation measure AQ-1 is required.	Significant. [CEQA Air Quality Threshold 3(d)]
Impact 4.3-8: The Project would create objectionable odors affecting a substantial number of people. [CEQA Air Quality Threshold 3(e)] (S)	There are no mitigation measures the Project could impose to reduce the potential impact to less than significant, as the nearby dairy odors would impact the residents when they are outside.	Significant. [CEQA Air Quality Threshold 3(e)]
Impact 4.3-9: The proposed Project would contribute to a cumulative impact to air quality. [Cumulative Air Quality Impact] (S)	Refer to mitigation measures AQ-1 through AQ-8.	Significant. [Cumulative Air Quality Impact]

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
4.4 - BIOLOGICAL RESOURCES Impact 4.4-1: The Project will could result in short and long-term indirect impacts to least Bell's vireo that occupy habitat associated with Mill Creek. [CEQA Biological Resources Threshold 4(a)] (PS)	BR-1. In conjunction with the 30 acres of restored grassland habitat (BR-9) and prior to the passive relocation of any BUOW within the Project footprint, a conservation easement shall be established and deeded to an agency that provides land stewardship for the 22.9 acres that are to be avoided within Mill Creek to ensure this area is preserved in perpetuity for LBV and other riparian species. BR-2. Construction activity within 500 feet of riparian habitat should not occur during the LBV nesting season, from April 1 through July 31. If construction activity is required within 500 feet of riparian habitat within Mill Creek during the nesting season, an experienced LBV biologist would be required to determine if any avian nests exist. If LBV nests are located, no construction activity shall be permitted that would subject the nest to noise higher than 60 dBA during the nesting season. The LBV biologist will act as the construction monitor and will be onsite during construction activity to monitor for any LBV within the vicinity of the site or nesting activity by any avian species. If no LBV or nesting activity occurs, then construction can continue. BR-3. The proposed Project shall avoid the use of invasive and non-native plant species identified by the California Invasive Plant Council (a listing of which is contained in Appendix D of the Draft EIR). The final landscape plans will be reviewed and verified by the City of Chino to ensure that invasive species will not be used. Maintenance of the landscape areas will include the removal of invasive plants that may establish through natural dispersal mechanisms. BR-4. A Pest/Turf Management Plan for common areas within the Project shall be prepared by the Applicant for review and approval by the City as part of required landscape plans to ensure that fertilizers and pesticides do no enter habitat areas. BR-5. No outdoor lighting within suitable LBV habitat shall be permitted. In addition, adjacent night lighting shall be reduced to the greatest extent practicable and designed with hoods or shields that reduce the amount of light spilling into the habitat.	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	BR-6. No recreational sport fields or structures shall be permitted within 250 feet of riparian habitat suitable to LBV. A plan for use of the Open Space-Recreation designated areas on the Project site shall be prepared demonstrating to the City that intrusive noise, lighting, and motion into the occupied LBV habitat shall not occur. Intrusion into the Mill Creek habitat area by people and/or pets shall not be permitted. Signs shall be posted around the perimeter of the Mill Creek habitat area that people and their pets are not permitted entry. BR-7. All trails will be posted with signs that dogs must remain leashed. BR-8. Project residents having pet cats shall be encouraged through distribution of an informational flyer to have them remain indoors.	
Impact 4.4-2: The Project could result in adverse modification to least Bell's vireo Critical Habitat. [CEQA Biological Resources Threshold 4(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.4-3: The Project will result in adverse permanent impacts to BUOW nesting territories and suitable BUOW habitat. [CEQA Biological Resources Threshold 4(a)] (PS)	BR-9. In order to avoid temporal loss of BUOW habitat, another conservation easement shall be established for the 30 acres of restored native grassland habitat, and deeded to an agency that provides land stewardship to ensure preservation in perpetuity. This should be done prior to the passive relocation of any BUOW within the Project footprint, and in conjunction with the conservation easement for the 22.9 acres of riparian habitat along Mill Creek to be preserved (BR-1). BR-10. The Applicant shall provide to the City for review and approval as part of required landscape plans a planting plan to establish and manage appropriate vegetation for the three detention basins and perimeter slopes, prepared by a qualified raptor and/or restoration biologist. BR-11. To avoid direct harm to BUOWs, burrows occupied by BUOWs must be avoided by 75 meters during the nesting season (February to August) and by 50 meters outside of the nesting season (September to January). Occupied burrows should not be disturbed during the nesting season unless a qualified biologist approved by the CDFG verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. BR-12. If BUOWs must be moved away from the disturbance area, passive	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	relocation techniques will be used. At least one or more weeks will be necessary to accomplish this to allow the BUOWs to acclimate to alternate burrows. Once all burrows on the Project site are confirmed to be absent of BUOWs, they will be systematically collapsed. New burrows shall be created (by installing artificial burrows at a ratio of 2:1 for every occupied burrow removed) on the grassland restoration area and the detention basins so that the BUOWs have alternate burrows to relocate. Where feasible, these burrows shall be built at least two weeks prior to the passive relocation effort. Prior to the passive relocation of the BUOW on the Project site, all BUOWs to be relocated shall be banded. Follow-up surveys to determine the fate of the passively relocated BUOWs shall be required to determine the success of the program. BR-13. A 30-day preconstruction survey for BUOW must be conducted so that all occupied burrows can be mapped and a strategy developed so that harm to BUOWs resulting from Project construction is avoided. BR-14. Prior to the passive relocation of any BUOWs within the Project footprint, a BUOW relocation and habitat management plan that incorporates the above mitigation measures shall be submitted and approved by the CDFG and the City of Chino.	
Impact 4.4-4: The Project will result in adverse permanent impacts to California State Sensitive species. [CEQA Biological Resources Threshold 4(a)] (PS)	BR-15. To compensate for the loss of suitable nesting habitat for loggerhead shrike, open space areas associated with the Project site shall be enhanced with native shrubs suitable as nest sites. This could include the planting of shrubby species such as Mexican elderberry.	Less than significant.
Impact 4.4-5: The Project could result in adverse permanent impacts to raptor foraging habitat. [CEQA Biological Resources Threshold 4(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.4-6: The Project has the potential to adversely impact special-status bird species nesting on the project site. [CEQA Biological Resources Threshold 4(a)] (PS)	BR-16. Removal of vegetation or other potential nesting bird habitat shall be conducted outside of the avian nesting season (February through August). If removal of vegetation occurs during the avian nesting season, a preconstruction nesting bird survey shall be conducted no more than 7 days prior to this activity. If birds are found to be nesting within or near the impact area, a buffer where no construction activities would occur would need to be established by a qualified biologist. This biologist would also determine if the nest is not currently active or when the nest is no longer active, at which time construction could resume.	Less than significant.

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Impact 4.4-7: The Project will not impact any sensitive natural communities. [CEQA Biological Resources Threshold 4(b)] (NI)	No mitigation measures required.	No impact.
Impact 4.4-8: The Project will not impact federally protected wetlands or other jurisdictional waters. [CEQA Biological Resources Threshold 4(c)] (NI)	No mitigation measures required.	No impact.
Impact 4.4-9: The Project could potentially interfere substantially with the movement of wildlife species, but will not disrupt any nursery sites. [CEQA Biological Resources Threshold 4(d)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.4-10: The Project would conflict with local policies or ordinances protecting biological resources. [CEQA Biological Resources Threshold 4(e)] (S)	Implementation of Project Mitigation Measures BR-1 through BR-17. BR-17. Prior to the issuance of any grading permits, the Project Proponent shall be required to pay impact fees for the perpetual management and maintenance of all biological resources protected by conservation easements. These resources include, but are not limited to, the 22.9 acres that are to be avoided within Mill Creek, as described in Edgewater Mitigation Measure BR-1, and the restored native grassland habitat, as described in Edgewater Mitigation Measure BR-9. A conservancy selected by the City shall, in collaboration with the City, determine the amount of these fees and manage the biological resources in these areas in perpetuity.	Significant. [CEQA Biological Resources Threshold 4(e)]
Impact 4.4-11: Development of the Project site as proposed will conflict with an approved Resource Management Plan and The Preserve Final EIR Biological Resource mitigation measures. [CEQA Biological Resources Threshold 4(f)] (PS)	Implementation of Project Mitigation Measures BR-1 through BR-17.	Significant. [CEQA Biological Resources Threshold 4(f)]
Impact 4.4-12: The Project will contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. [Cumulative Biological Resources Impact] (PS)	Implement Project Mitigation Measures BR-1 through BR-17.	Significant. [Cumulative Biological Resources Impact]

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4.5 - CULTURAL RESOURCES Impact 4.5-1: The Project could cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. [CEQA Cultural Resources Threshold 5(a)] The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. [CEQA Cultural Resources Threshold 5(b)] (PS)	CR-1. A City-approved Project Archaeologist with background in the historic resources of the City of Chino shall create a mitigation monitoring plan to direct archaeological monitoring prior to earthmoving in the Project area, as directed in CR-2. A pre-grade meeting to review the details of that plan must occur between the monitoring archaeologist(s) and the grading contractor before grading begins. The plan must discuss contingency plans associated with Native American tribal representation if any prehistoric artifacts are found during earthmoving. These artifacts may potentially be considered sacred items by one or more Native American tribes. The mitigation monitoring plan must contain a description of how and where artifacts will be curated if found during monitoring. CR-2. Once a depth below the modern ground surface of 3 feet is reached, full-time monitoring shall be required during all construction-related earthmoving. The Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected after 50 percent of the qualifying ground has been graded. If buried cultural resources are detected during monitoring, monitoring must continue until 100 percent of virgin earth within the Project area has been disturbed and inspected by the monitor(s). CR-3. Should previously unidentified cultural resource sites, prehistoric or historic cultural resources be encountered during monitoring, they should be Phase II tested and evaluated for significance following CEQA Guidelines prior to allowing a continuance of grading in the area. CR-4. The locations of seven historic pending sites (P871-8H, P871-9H, P871-10H, P871-11H, P871-12H, P871-16H, and P871-22H) shall be carefully monitored during grading of the Project area. Should subsurface manifestations of these sites be uncovered during grading, their qualities shall be documented by the monitoring archaeologist for inclusion in the monitoring report. CR-5. If geotechnical investigations must take place within 250 feet of any known cultural resource site in the Project area, the geotechnical investigation must be monitored by a qualified archaeologist.	Less than significant.

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Impact 4.5-2: The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [CEQA Cultural Resources Threshold 5(c)] (PS)	CR-6. Construction-related earthmoving must be monitored by one (1) qualified Native American monitor. The monitor must belong to the Tribe or be a known descendant of the Gabrieliño Band of Mission Indians. CR-7. Prior to any clearing and grubbing and/or earthmoving activities on the Project area, a qualified Project Paleontologist retained by the Project Proponent and approved by the City shall review the approved development and construction plans. The Project Paleontologist shall participate in a pre-construction Project meeting with the development Staff to ensure an understanding of the mitigation measures required during construction. CR-8. Once a depth of 5 feet is reached during grading or trenching, paleontologic monitoring of any earthmoving will be conducted by a qualified monitor, under direct guidance of a Project Paleontologist. Earthmoving in areas of the Project site where previously undisturbed sediments will be buried but not otherwise disturbed will not be monitored. Non-virgin soils need not be monitored. CR-9. If fossil remains are found, the Project Paleontologist shall develop a storage agreement with a museum repository acceptable within the City or County to allow for the permanent storage and maintenance of any fossil remains recovered in the Project area as a result of the mitigation program, and for the archiving of associated specimen data and corresponding geologic and geographic site data. Any recovered fossil remains will be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains then will be curated (assigned and labeled with museum repository fossil specimen numbers and corresponding fossil site numbers, as appropriate, placed in specimen trays and, if necessary, vials with completed specimen data cards) and catalogued. Associated specimen data and corresponding geologic and geographic site data will be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized databases) at the museum repository by a laboratory technician. The remains then will be accessioned into the museum repository fossil collection, where they will be permanently stored and maintained. The associated specimen and site data will be made available for future study by qualified investigators.	Less than significant.

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	CR-10. A final report of findings shall be prepared by the Project Paleontologist for submission to the City, and the museum repository following accessioning of the specimens into the City, and the museum repository following accessioning of the specimens into the museum repository fossil collection. The report will describe Project site geology/stratigraphy, summarize field and laboratory methods used, include a faunal list and an inventory of curated/catalogued fossil specimens, evaluate the scientific importance of the specimens, and discuss the relationship of any newly recorded fossil site within the Project site to relevant fossil sites previously recorded from other areas.	
Impact 4.5-3: The Project may disturb human remains, including those interred outside of formal cemeteries. [CEQA Cultural Resources Threshold 5(d)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.5-4: The Project could impose an incremental effect on the loss of cultural and/or paleontological resources of the regional area. (LTS)	No mitigation measures are required.	Less than significant.
4.6 - GEOLOGY AND SOILS		
Impact 4.6-1: Project implementation would not result in the exposure of persons or structures to seismic hazards such as fault rupture, strong ground shaking, liquefaction, ground failure, and/or landslides. [CEQA Geology and Soils Threshold 6(a)] (LTS)	No mitigation measures are required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts associated with seismic hazards are less than significant.	Less than significant.
Impact 4.6-2: The Project will not result in substantial soil erosion or the loss of topsoil. [CEQA Geology and Soils Threshold 6(b)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.6-3: The Project is not 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. [CEQA Geology and Soils Threshold 6(c)] (LTS)	No mitigation measures required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts related to lack of geologic stability are less than significant.	Less than significant.

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Impact 4.6-4: The expansive potential of Project soils will not create substantial risks to life or property. [CEQA Geology and Soils Threshold 6(d)] (LTS)	No mitigation measures required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts regarding expansive soils are less than significant.	Less than significant.
Impact 4.6-5: Development of the proposed Project, and other past, present, and reasonably foreseeable future projects, could expose future populations to regional seismic hazards. (LTS)	No mitigation measures required.	Less than significant.
4.7 - HAZARDS AND HAZARDOUS MATERIALS		
Impact 4.7-1: Project implementation will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Project implementation will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. [CEQA Hazards / Hazardous Materials Threshold 7(a)] [CEQA Hazards / Hazardous Materials Threshold 7(b)] (PS)	HHM-1. Prior to demolition of any onsite structures and prior to issuance of grading permits, the Applicant shall submit a site Remediation Program to the Building Division and Public Works Department for review and approval to address the existing hazardous materials identified in Section 4.7 of the Draft EIR. This Remediation Program shall: • Incorporate the recommendations of the URS and Laguna Geosciences Phase I Environmental Site Assessments, and the URS Phase II Soil Investigation for testing and remediation not yet satisfied; • Incorporate a plan for State-regulated abandonment of water wells onsite; • Require the evaluation of onsite structures for the presence of asbestos and lead-based paint, and the removal of such materials according to the applicable regulations and guidelines established by the South Coast AQMD, Department of Toxic Substances Control, and the US Environmental Protection Agency; and • Specify further soil testing once mass grading has occurred to determine if any soils contain elevated levels of nitrates/nitrites, and incorporate remediation measures to address elevated levels of nitrates/nitrites if discovered.	Less than significant.
Impact 4.7-2: The Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a proposed school. [CEQA Hazards / Hazardous Materials Threshold 7(c)] (LTS)	No mitigation measures required.	Less than significant.

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Impact 4.7-3: The Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment [CEQA Hazards / Hazardous Materials Threshold 7(d)] (NI)	No mitigation measures required.	No impact.
Impact 4.7-4: The Project would not result in a safety hazard from Chino Airport for people residing or working in the Project area. The Project is not within the vicinity of a private airstrip. [CEQA Hazards / Hazardous Materials Threshold 7(e)] [CEQA Hazards / Hazardous Materials Threshold 7(f)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.7-5: The proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, [CEQA Hazards / Hazardous Materials Threshold 7(g)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.7-6: Project implementation could expose people or structures to a significant risk of loss, injury or death involving wildland fires. [CEQA Hazards / Hazardous Materials Threshold 7(h)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.7-7: The incremental impact of the Project, when added to the related past, present, or reasonably foreseeable future projects, would not result in cumulative impacts related to hazards and hazardous materials. (LTS)	No mitigation measures required.	Less than significant.

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4.8 - HYDROLOGY AND WATER QUALITY		
Impact 4.8-1: The Project will not violate any water quality standards or waste discharge requirements. The Project will not otherwise substantially degrade water quality. [CEQA Hydrology and Water Quality Thresholds 8(a) and 8(f)] (LTS)	No hydrology and water quality mitigation measures required. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant. Implement U-WW-1.	Less than significant.
Impact 4.8-2: The Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. [CEQA Hydrology and Water Quality Threshold 8(b)] (LTS)	No mitigation measures required. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant.	Less than significant.
Impact 4.8-3: The Project could 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 which would result in substantial erosion or siltation on- or off-site. [CEQA Hydrology and Water Quality Threshold 8(c)] (LTS)	No hydrology and water quality mitigation measures required. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant. Implement U-SD-1.	Less than significant.
Impact 4.8-4: The Project could 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 which would result in flooding on- or off-site. [CEQA Hydrology and Water Quality Threshold 8(d)] (LTS)	No hydrology and water quality mitigation measures required. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant. Implement U-SD-1.	Less than significant.

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Impact 4.8-5: The Project will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [CEQA Hydrology / Water Quality Threshold 8(e)] (LTS)	No hydrology and water quality mitigation measures necessary. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant. Implement U-WW-1 and U-SD-1.	Less than significant.
Impact 4.8-6: The Project will not 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 Project will not place structures within a 100-year flood hazard area which would impede or redirect flood flows. The Project will not 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. [CEQA Hydrology / Water Quality Thresholds 8(g), 8(h), and 8(i)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.8-7: The Project will not be exposed to inundation by seiche, tsunami, or mudflow. [CEQA Hydrology / Water Quality Threshold 8(j)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.8-8: The Project's incremental effect on cumulative hydrology and water quality conditions would not be cumulatively considerable. (LTS)	No additional mitigation measures required. Adherence to NPDES and other regulatory requirements will ensure that potential hydrology and water quality impacts associated with Project implementation are less than significant.	Less than significant.
4.9 - LAND USE AND PLANNING		
Impact 4.9-1: The Project will not physically divide an established community. [CEQA Land Use and Planning 9(a)] (NI)	No mitigation measures required.	No impact.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.9-2: The Project will conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project. [CEQA Land Use and Planning 9(b)] (S)	Other than Project design to preserve and enhance remaining open space areas, no feasible mitigation measures are available.	Significant. [CEQA Land Use and Planning 9(b)]
Impact 4.9-3: Development of the Project site as proposed will conflict with an approved Resource Management Plan and The Preserve Final EIR mitigation measures designed to reduce impacts of the Preserve Specific Plan to below a level of significance. [CEQA Land Use and Planning 9(c)] (PS)	Implement Edgewater Project Biological Resources Mitigation Measures.	Significant. [CEQA Land Use and Planning 9(c)]
Impact 4.9-4: Project implementation will result in a significant and irretrievable cumulative loss of open space and agricultural lands, and contribute to the cumulative land use conflicts and compatibility problems associated with long-term transition of dairylands to urban uses. [Cumulative land use and planning impact] (S)	Other than Project design to preserve and enhance remaining open space areas, no feasible mitigation measures are available.	Significant. [Cumulative land use and planning impact]
4.10 - MINERAL RESOURCES		
Impact 4.10-1: The Project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; The Project will also not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. [CEQA Mineral Resources Thresholds 10(a) and 10(b) (NI)]	No mitigation measures are required.	No impact.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.10-2: The Project will not contribute to the cumulative loss of known mineral resources that would be of value to the region and the residents of the state; nor will it contribute to the cumulative loss of availability of locally-important mineral resource recovery sites delineated on local general plans, specific plans or other land use plans. (NI)	No mitigation measures are required.	No impact.
4.11 - NOISE		
Impact 4.11-1: The Project would not expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. [CEQA Noise Threshold 11(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.11-2: The Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. [CEQA Noise Threshold 11(b)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.11-3: The Project would not create a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. [CEQA Noise Threshold 11(c)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.11-4: The Project would create a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. [CEQA Noise Threshold 11(d)] (PS)	N-1. At the time the grading permit application is submitted, the Project applicant shall submit a construction noise mitigation plan to the City of Chino for review and approval. The plan shall depict the location of construction equipment and describe how noise would be mitigated through methods such as, but not limited to, locating stationary noise-generating equipment (such as pumps and generators) as far as possible from nearby noise-sensitive receptors. Where practicable, noise-generating equipment will be shielded from nearby noise-sensitive receptors by noise-attenuating buffers such as structures or haul trucks/trailers. Onsite noise sources such as heavy equipment located less than 200 feet from noise-sensitive receptors will be equipped with noise-reducing engine housings. Portable	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	acoustic barriers able to attenuate at least 6 dB will be placed around noise-generating equipment located within 200 feet of both existing residences and occupied residences of completed Project phases. Water tanks and equipment storage, staging, and warm-up areas shall be located as far from noise-sensitive receptors as possible. All noise attenuation measures identified in the plan shall be incorporated into the Project. N-2. Construction activities shall adhere to the following noise requirements: • All construction equipment shall utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. • Hours of construction shall comply with those established in Section 15.44.030 of the Chino Municipal Code. Those hours are weekdays and Saturdays from 8:00 a.m. through 7:00 p.m. Construction is prohibited on Sundays and Federal holidays.	
Impact 4.11-5: The Project is located within an airport land use plan and within two miles of a public airport but would not expose people residing or working in the Project area to excessive noise levels. [CEQA Noise Threshold 11(e)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.11-6: The Project is not located within the vicinity of a private airstrip, and would not expose people residing or working in the Project area to excessive noise levels. [CEQA Noise Threshold 11(f)] (NI)	No mitigation measures required.	No impact.
Impact 4.11-7: The Project would not result in cumulatively considerable impacts to noise during construction or operation of the Project. (LTS)	No mitigation measures required.	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
4.12 - POPULATION AND HOUSING		
Impact 4.12-1: The Project will induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure). [CEQA Population / Housing Threshold 12(a)] (LTS)	No mitigation measures are required.	Less than significant.
Impact 4.12-2: The Project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. [CEQA Population / Housing Threshold 12(b)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.12-3: The Project would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere. [CEQA Population / Housing Threshold 12(c)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.12-4: The Project would result in a significant cumulative impact related to the generation of population in the City of Chino. (LTS)	No mitigation measures required.	Less than significant.
4.13 - PUBLIC SERVICES		
Impact 4.13-1: The Project would incrementally increase call volumes for fire protection services. [CEQA Public Services Threshold 13(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.13-2: The Project would generate a need for additional police officers and police protection equipment. [CEQA Public Services Threshold 13(a)] (LTS)	No mitigation measures required.	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.13-3: The students generated by the proposed Project would not exceed the existing capacity of area schools. [CEQA Public Services Threshold 13(a)] (LTS)	No mitigation measures would be required.	Less than significant.
Impact 4.13-4: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. [CEQA Public Services Threshold 13(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.13-5: The Project, in conjunction with other past, present, and reasonably foreseeable future projects, will not result in a significant cumulative impact related to public services. (LTS)	No mitigation measures required.	Less than significant.
4.14 - RECREATION		
Impact 4.14-1: The Project would 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. [CEQA Recreation Threshold 14(a)] (S)	Compliance with City park requirements are required. Project design does not allow the Project park requirements to be met and no mitigation measures are currently available to allow the Project park requirement to be met.	Significant. [CEQA Recreation Threshold 14(a)]
Impact 4.14-2: The Project includes recreational facilities which could have an adverse physical effect on the environment. [CEQA Recreation Threshold 14(b)] (PS)	Implement Mitigation Measure BR-6, which imposes restrictions on facilities and uses within the OS-R area and for reconstructed wetlands.	Less than significant.
Impact 4.14-3: Implementation of the Project will contribute to a significant adverse cumulative impact on recreational facilities. (S)	Compliance with City park requirements are required. Project design does not allow the Project park requirements to be met and no mitigation measures are currently available.	Significant.
4.15 - TRANSPORTATION AND TRAFFIC		
Impact 4.15-1: The Project could cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street	T-1. The Project applicant shall either construct certain improvements or pay a fair share mitigation fee for improvements, to be determined by the City of Chino, at the following intersections to mitigate impacts for the 2019 Interim Year	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
system. The Project could individually exceed a level of service standard established by the county congestion management agency for designated roads or highways. [CEQA Transportation Thresholds 15(a) and 15(b)](PS)	condition: City of Chino: - SR-71 Freeway Northbound Ramps (NS) at: 5. Pine Avenue (EW) - El Prado Road (NS) at: 7. Pine Avenue (EW) - Euclid Avenue (SR-83) (NS) at: 11. Edison Avenue (EW) 12. Eucalyptus Avenue (EW) 13. Merrill Avenue (EW) 14. Kimball Avenue (EW) 15. Bickmore Avenue (EW) 16. Pine Avenue (EW) - Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at: 18. SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW) - Mill Creek Road (NS) at: 20. Kimball Avenue (EW) - Chino Corona Road / Mill Creek Road (NS) at: 22. Pine Avenue (EW) - Cucamonga Avenue (NS) at: 23. Chino Corona Road (EW) 52. Project Site Access Road (EW) [Future Intersection] - Main Street (NS) at: 29. Pine Avenue (EW) [Future intersection] - Main Street/North East Project Site Access Roadway (NS) at: 30. Chino Corona Road (EW) [Future intersection] Counties of San Bernardino/Riverside: - Hellman Avenue (NS) at:	

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	33. Kimball Avenue/Limonite Avenue (EW) [Future Intersection] 34. Pine Avenue/Schleisman Road (EW) 35. Chino Corona Road/Chandler Street (EW) County of Riverside: • Archibald Street (NS) at: 37. Schleisman Road (EW) 39. River Road (EW) • Harrison Avenue (NS) at: 44. Schleisman Road (EW) • Sumner Avenue (NS) at: 45. Schleisman Road (EW) • Cleveland Avenue (NS) at: 46. Schleisman Road (EW) T-2. The Project applicant shall adhere to the following provisions regarding Project circulation and landscape improvements: • Landscape plans shall incorporate the line of sight at Project access points to ensure that fences, signs, trees, shrubs, etc. do not block the line of sight. • Internal traffic signing/stripping shall be implemented in conjunction with detailed construction plans for the Project. • Stop sign control for the Project site access driveways shall be provided. • The Project internal spine road shall be constructed to Specific Plan/collector roadway standards. • Cucamonga Avenue shall be constructed from Project entry to Chino Corona Road to match the planned street section north of Chino Corona Road, which is a Local Collector (two lanes) with Paseo (83' right-of-way). • Chino Corona Road adjacent to the site shall be constructed at its half section width as a local collector (66' right-of-way) in conjunction with Project development.	

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.15-2: The Project will not 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. [CEQA Transportation Threshold 15(c)] (NI)	No mitigation measures required.	No impact.
Impact 4.15-3: The Project will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [CEQA Transportation Threshold 15(d)] (LTS)	Implement Mitigation Measure T-2. No further mitigation measures required.	Less than significant.
Impact 4.15-4: The Project will not result in inadequate emergency access. [CEQA Transportation Threshold 15(e)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.15-5: The Project will not result in inadequate parking capacity. [CEQA Transportation Threshold 15(f)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.15-6: The Project will not conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks). [CEQA Transportation Threshold 15(g)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.15-7: The Project could cumulatively exceed a level of service standard established by the county congestion management agency for designated roads or highways. [CEQA Transportation Threshold 15(b)] (PS)	T-3. The Project applicant shall pay fair share fees, to be established by the City of Chino, for improvements to the Post-2030 circulation network to accommodate Project traffic. Outside of local, state and federal funding sources, no mechanisms are currently in place for local contributions to freeway improvements on a project-by-project basis. Similarly, no mechanisms or interagency agreements exist to address full funding and construction of offsite intersection improvements needed by cumulative projects and regional growth.	Significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	With implementation of Mitigation Measures T-1 through T-3, including requirement for payment of fair share contributions for road improvements within the Traffic Impact Analysis study area, cumulative traffic impacts will be reduced, but not to less than significant levels.	
4.16 - UTILITIES AND SERVICE SYSTEMS		
Impact 4.16-1: The Project will not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. [CEQA Utilities and Service Systems Threshold 16(a)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.16-2: The Project could require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. [CEQA Utilities and Service Systems Threshold 16(b)] The Project could require additional wastewater capacity from the wastewater treatment provider. [CEQA Utilities and Service Systems Threshold 16(c)] (PS)	U-WW-1. Construction contractors utilized for construction of Project infrastructure for the utility systems (potable water, recycled water, sanitary sewer and/or storm drain) shall be required to follow Best Management Practices to limit short-term construction-related impacts. U-WW-2. Sewer systems below the 566' elevation shall be designed as sealed systems to mitigate the potential high inflow and infiltration into the sewer system. All manhole covers and clean-out covers with elevations lower than 566' shall have bolted covers with pressure plated assemblies. All sewer structures including wet wells, junction structures, flow splitters, and manholes that extend below the 566' elevation shall be plastic lined, and include water-stops at all construction and expansion joints. U-WW-3. Design, construction, and timing of wastewater facilities shall conform to the hydraulic criteria presented in the Sewer Master Plan Update, Subareas 1 and 2 (Bureau Veritas North America, Inc., November 2007).	Less than significant.
Impact 4.16-3: The Project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. [CEQA Utilities and Service Systems Threshold 16(c)] (PS)	U-SD-1. Design, construction, and timing of storm drain facilities shall conform to the hydraulic criteria presented in the Storm Drain Master Plan Update, Subarea 2 (Bureau Veritas North America, Inc., December 2007). Implement Mitigation Measures U-WW-1 and U-WW-3.	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
Impact 4.16-4: The Project will have sufficient water supplies available to serve the Project from existing entitlements and resources, and no new or expanded entitlements are needed. [CEQA Utilities and Service Systems Threshold 16(d)] (LTS)	No mitigation measures required. The Project will have sufficient water supplies available to serve the Project from existing entitlements, programs, and resources. The following mitigation measure is provided to conserve water resources and the quantity of energy used. U-W-1. The applicant/developer and the City of Chino shall work to include sustainable systems for use of water and energy with the Project design.	Less than significant.
Impact 4.16-5: The Project is served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. [CEQA Utilities and Service Systems Threshold 16(f)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.16-6: The Project will comply with federal, state, and local statutes and regulations related to solid waste. [CEQA Utilities and Service Systems Threshold 16(g)] (LTS)	No mitigation measures required.	Less than significant.
Impact 4.16-7: Existing and future planned electrical facilities and supplies are adequate to serve proposed Project land uses. (LTS)	No mitigation measures required.	Less than significant.
Impact 4.16-8: Existing and future planned natural gas facilities and supplies are adequate to serve proposed Project land uses. (LTS)	No mitigation measures required.	Less than significant.
Impact 4.16-9: The Project, in conjunction with other past, present, and reasonably foreseeable future projects, will not result in a significant cumulative impact related to utilities and service systems. (LTS)	No mitigation measures required.	Less than significant.
4.17 - CLIMATE CHANGE AND GREENHOUSE GASES		
Impact GCC-1: The Project would not significantly impact the environment through its emissions of greenhouse gases as such gases are defined in AB	Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GCC-5 are offered to further reduce impacts: GCC-1. To increase energy efficiency, the Project shall implement the following	Less than significant.

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
32. (LTS)	measures. a) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Green Buildings Initiative), all buildings/units are required to be designed to meet 2008 Title 24 requirements. If Project building permits are obtained when post-2008 Title 24 requirements are in place, the Project shall be designed to meet those requirements. b) Consistent with the California Air Resources Board, AB 32 Early Action Measures: all buildings within the Project shall use cool paints; the Project shall incorporate cool pavements in the driveway areas; and the Project shall incorporate a minimum of two shade trees on the south and west sides of each of the low-density residential units. c) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (California Solar Initiative), the Project developer shall offer photovoltaic cells (solar panels) to the single-family residential units. The Project shall install solar panels to generate a minimum of 500,000 kilowatt-hours per year collectively from the solar panels located on the roofs of the structures within the Project. d) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Appliance Energy Efficiency Standards in Place and in Progress), the Project shall incorporate energy efficient appliances (i.e., dishwashers, washer, dryer, refrigerator, stoves, etc.) where they are provided by the developer. The Project shall also incorporate energy efficient exterior lighting and compact fluorescent lights in residential units. GCC-2. Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Zero Waste - High Recycling and Achieve 50 percent Statewide Recycling Goal), the Project shall do the following: a) Prior to issuance of a grading permit, the applicant shall prepare a Waste Management Plan for review and approval by the Community Development Department with the goal of reducing waste during construction by 50 percent.	

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	b) As possible, the soil removed from the Project during demolition shall be used in the re-grading of the Project site and/or for landscape purposes to avoid placement in a landfill. c) Recycling shall be mandated at the multi-family housing residential areas. Appropriate collection and storage space for recycling shall be allocated at the multi- family housing areas. GCC-3. Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Water Use Efficiency), a comprehensive water conservation strategy shall be prepared and submitted for review and approval by the Community Development Department prior to the issuance of grading permits. The strategy shall include the specific items that follow, plus other innovative measures that are appropriate for the location. a) Tankless water heaters shall be installed in all of the residential units. b) The landscaping in the open space areas shall use drought-resistant plants. The residential areas shall have a limit on the amount of turf (grass) of a maximum of 25 percent of the total yard. c) Water efficient design shall be used for buildings. d) Homeowner's Association(s) shall be audited for their water use to promote efficient water use. GCC-4. To reduce vehicle miles traveled and emissions associated with trucks and vehicles, the following measures shall be implemented: a) Onsite bicycle storage parking shall be provided where designated by the City of Chino Community Development Department in areas that are non-residential land uses. b) The applicant shall pay its fair share contribution in traffic impact fees and coordinate with the City regarding intersections within the Project vicinity, such that traffic passes more efficiently through congested areas. If signals are installed as part of the Project, Light Emitting Diode traffic lights shall be installed. c) Landscape equipment used to maintain the public areas in the development shall be electric. This measure would be applicable to the Homeowner's	

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Environmental Impact	Recommended Mitigation Measures	Level of Significance After Mitigation
	Association. d) Information regarding public transit shall be displayed at the church and school. GCC-5. The Project shall either plant 500 canopy-type trees onsite or contribute to an organization that plants trees sufficient funds to plant a minimum of 500 trees in California. Information regarding the area that the trees are to be planted, the organization (if applicable), and the date the trees will be planted shall be provided to the City prior to complete buildout of the Project.	
Impact GCC-2: The impacts of climate change would not significantly impact the Project. (LTS)	Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GCC-5 are offered to further reduce impacts.	Less than significant.
Impact GCC-3: The Project would not cumulatively impact the environment through its emissions of greenhouse gases as such gases are defined in AB 32. (LTS)	Refer to Mitigation Measures GCC-1 through GCC-5. Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GCC-5 are offered to further reduce impacts.	Less than significant.

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SECTION 3: PROJECT DESCRIPTION

3.1 - Project Location and Setting

3.1.1 - Location

The Project site for the Edgewater Communities Project is located in the City of Chino in the extreme southwestern corner of San Bernardino County, approximately 37 miles east of the City of Los Angeles and 20 miles southwest of the City of San Bernardino (see Exhibit 3-1). The Project site, approximately 273 acres in size, is within the southerly portion of The Preserve Specific Plan area, a 5,435-acre area annexed by the City of Chino in July 2003 (see Exhibit 3-2). The precise Project location is southeast of the intersection of Chino Corona Road and Cucamonga Avenue in the City of Chino. The Project site occurs on the Corona North and Prado Dam United States Geological Survey (USGS) quadrangle maps, in Sections 4 and 5 of Township 3 South, Range 7 West. The general location of the Project site can be described as follows (see Exhibits 3-1 through 3-3): 1) Additional property within The Preserve Specific Plan area within the City of Chino lies to the north; 2) California Institution for Women lies to the northwest; 3) Prado Regional Park lies to the west; 4) City of Chino Hills lies to the southwest; 5) Prado Flood Control Basin lies to the south, east, and west; 6) City of Corona and the Santa Ana River lie to the south and southeast; 7) City of Norco lies to the southeast; and 8) the unincorporated community of Eastvale in Riverside County lies to the east.

3.1.2 - Existing Conditions

Landform

The topography at the site is variable, ranging from essentially flat in the northern portion, to gently rolling hills in the southern portion. The southern portion consists of a small north-south trending ridge, bounded by smaller knobs or rounded hills and gently graded low areas. Slopes become steeper along the eastern boundary near Mill Creek. Elevation within the Project site ranges from approximately 508 to 579 feet above mean sea level.

Project Site Uses

The Project site is currently occupied by an active dairy operation known as the Stueve Dairy (with a cow population generally ranging from 600-800 cows), and open land (see Exhibit 3-4). Site Photographs are provided in Exhibit 3-5 and Exhibits 3-5a through 3-5m.

The dairy is located in the northern portion of the site and consists of three occupied residences, barns, and associated structures. Cattle holding pens make up the majority of the dairy area. Multiple small waste discharge ponds are located in the southwestern portion of the dairy area, serving to collect and handle the wastewater associated with dairy operations. Wastewater and storm water runoff from four adjacent dairies is currently accepted. Water is managed using onsite percolation/

evaporation and/or irrigation through the use of manmade ponds. Mill Creek and associated riparian area extend within the eastern portion of the Project site.

The open lands within the site contain several structures, including an unoccupied residence and a barn, several dirt access roads, irrigation pipelines, and a manmade pond located in the southeast corner containing dairy wastewater. Rainfall was sufficient last winter (2007) to support a crop of winter wheat occupying approximately 60 acres within the central portion of the site. In general, however, the use of the open land within the Project site to accept wastewater and storm water runoff from the four adjacent dairies, as well as accepting solid and liquid waste from the onsite dairy operation, has degraded the soil and restricted agricultural use.

Site Access

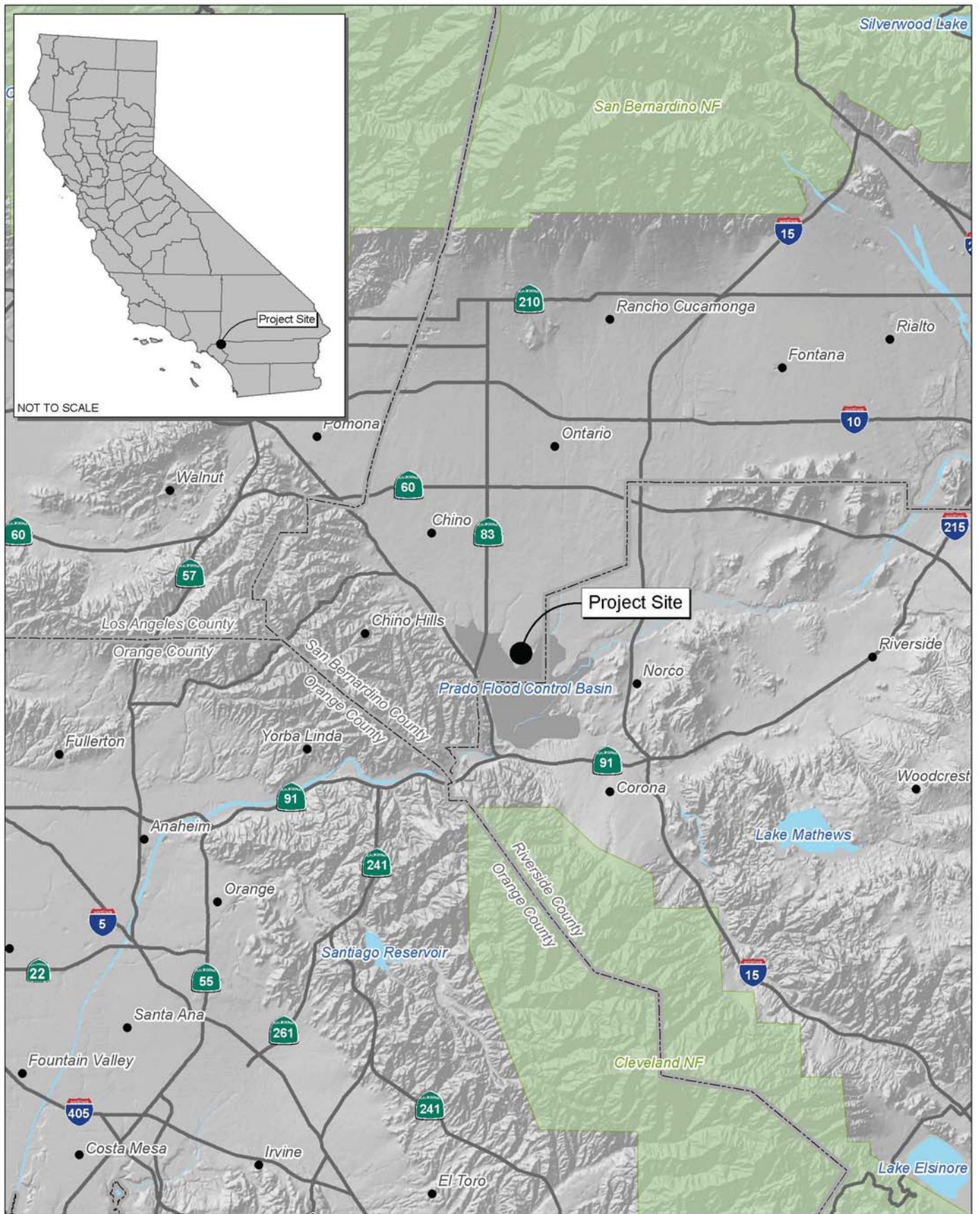
Regional access to the Project site is provided via State Route (SR) 71 to the west, SR- 91 to the south, Interstate 15 to the east, and SR-60 to the north. The Project site has frontage along Chino Corona Road and Cucamonga Avenue. Existing local access to the Project site is obtained from existing driveways at Chino Corona Road and Cucamonga Avenue.

Prado Dam and Flood Easements

The Prado Dam Inundation Area has previously been defined to include lands up to 556' elevation above sea level. Prado Dam is being raised pursuant to the approved US Army Corps of Engineers (USACE) Santa Ana Mainstem Project. The raising of the Prado Dam will increase the area of potential dam inundation by ten feet from its current elevation at 556' above sea level to 566' above sea level.

Properties within the more recently defined Prado Dam Inundation Area, below the 566' elevation and as mapped in The Preserve Specific Plan and Final EIR, were designated for Open Space-Recreational (OS-R), Open Space-Water (OS-W), Agricultural/Open Space-Natural (AG/OS-N) and Open Space-Natural (OS-N) uses. Location of the 566' elevation within the Project site has since been more precisely defined by the Applicant's Project Engineer (Huitt-Zollars). Nevertheless, most of the Edgewater Communities Project site (238 acres or 87.2 percent) currently lies below the 566' elevation (see Exhibit 3-6).

The portion of the Project site currently at or below the 556' elevation is within the USACE flowage easement area within the Prado Flood Control Basin (see Exhibit 3-6). A Flood Easement Exchange between the Applicant and USACE is required to permit Project implementation. A Flood Easement Exchange is a federal action and has specific requirements that include: 1) an Environmental Assessment by the Operations Section of USACE on property boundaries that are subject to the exchange; 2) real estate appraisal of the property or properties to be exchanged; 3) storage capacity analysis; and 4) a cost-benefit analysis.



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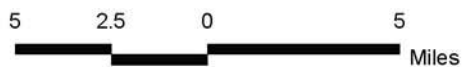
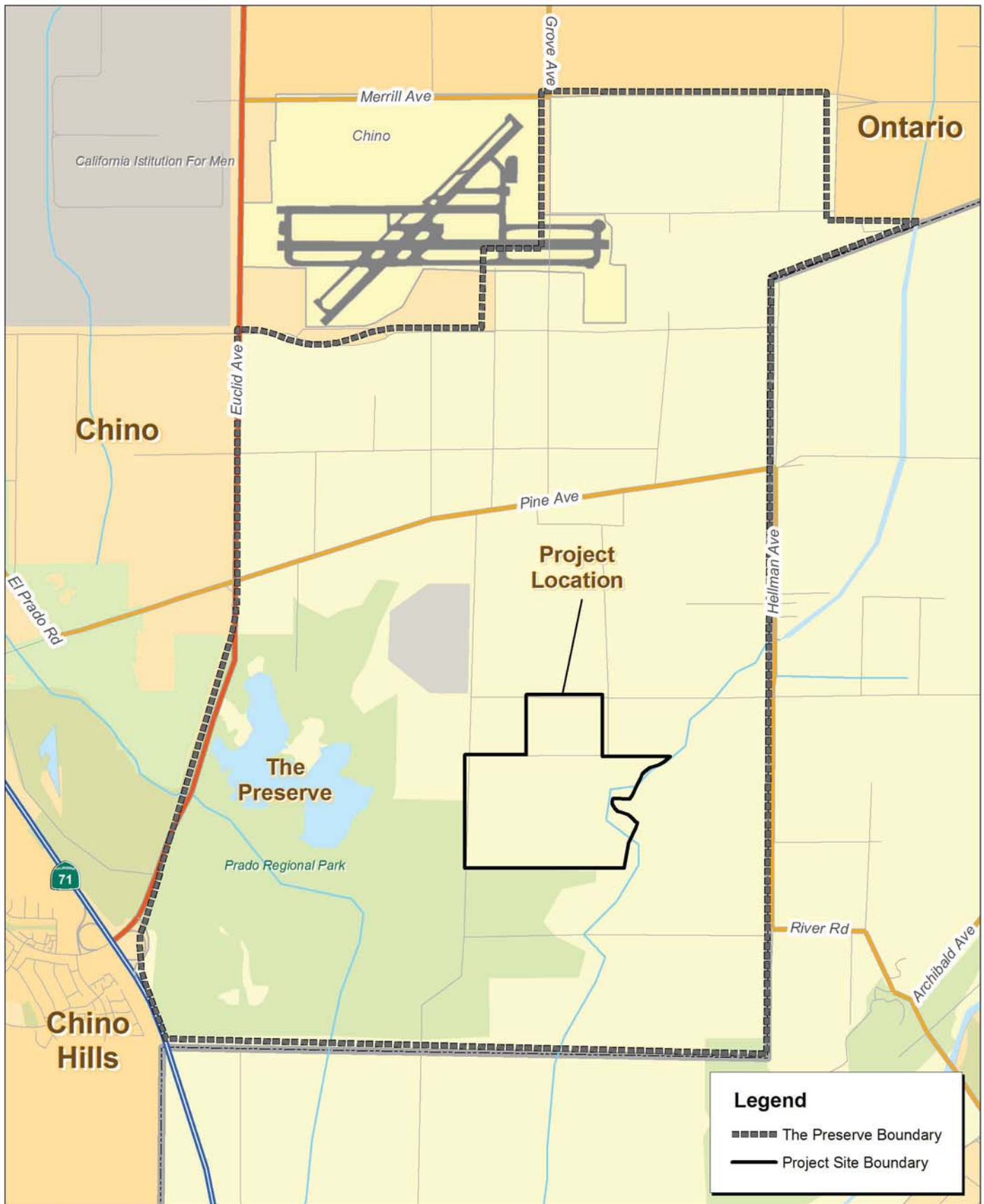
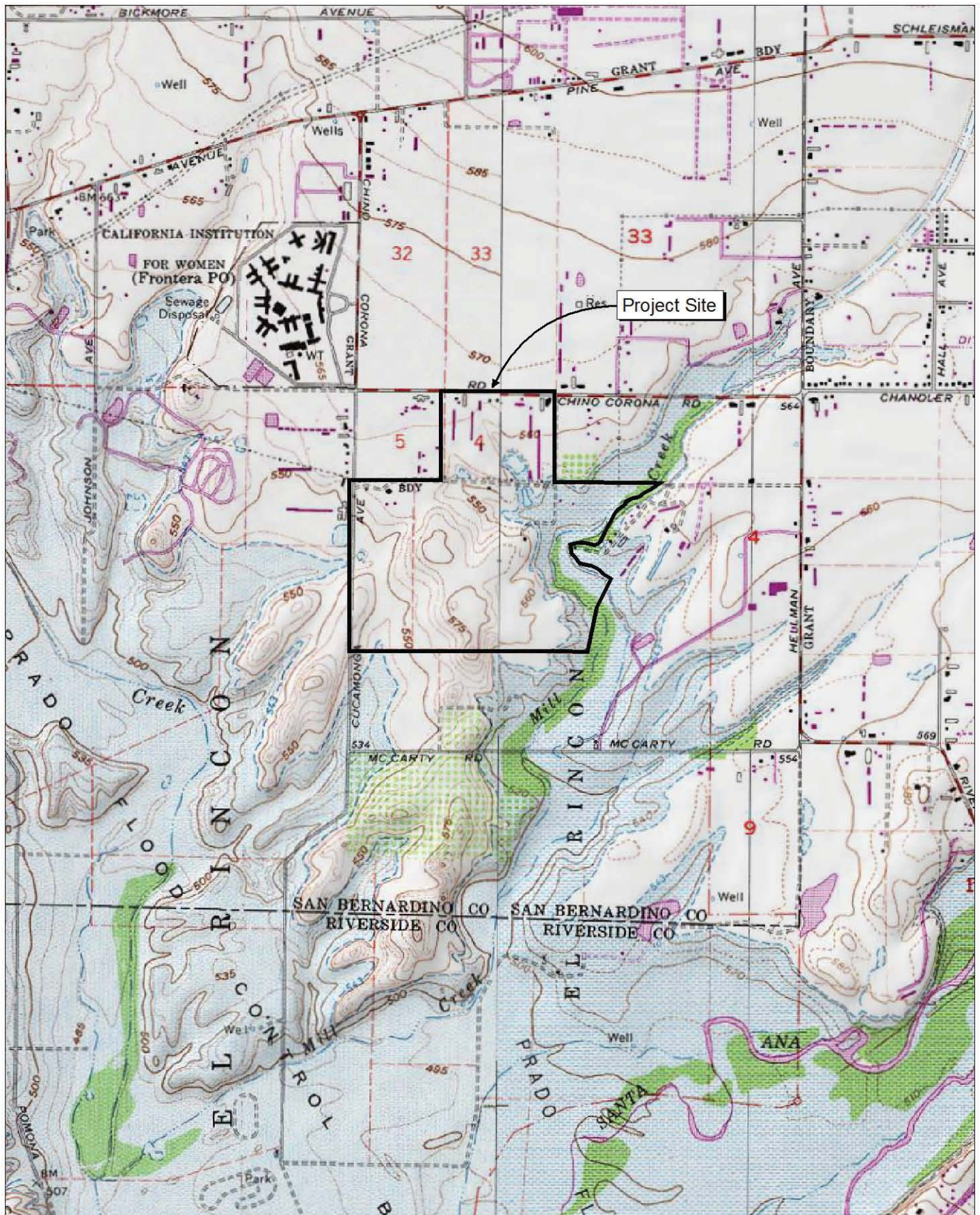


Exhibit 3-1 Regional Location Map

EDGEWATER COMMUNITIES • CITY OF CHINO
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Source: Street Map USA, 2007.



Source: TOPO! USGS Corona North (1978) 7.5' DRG.

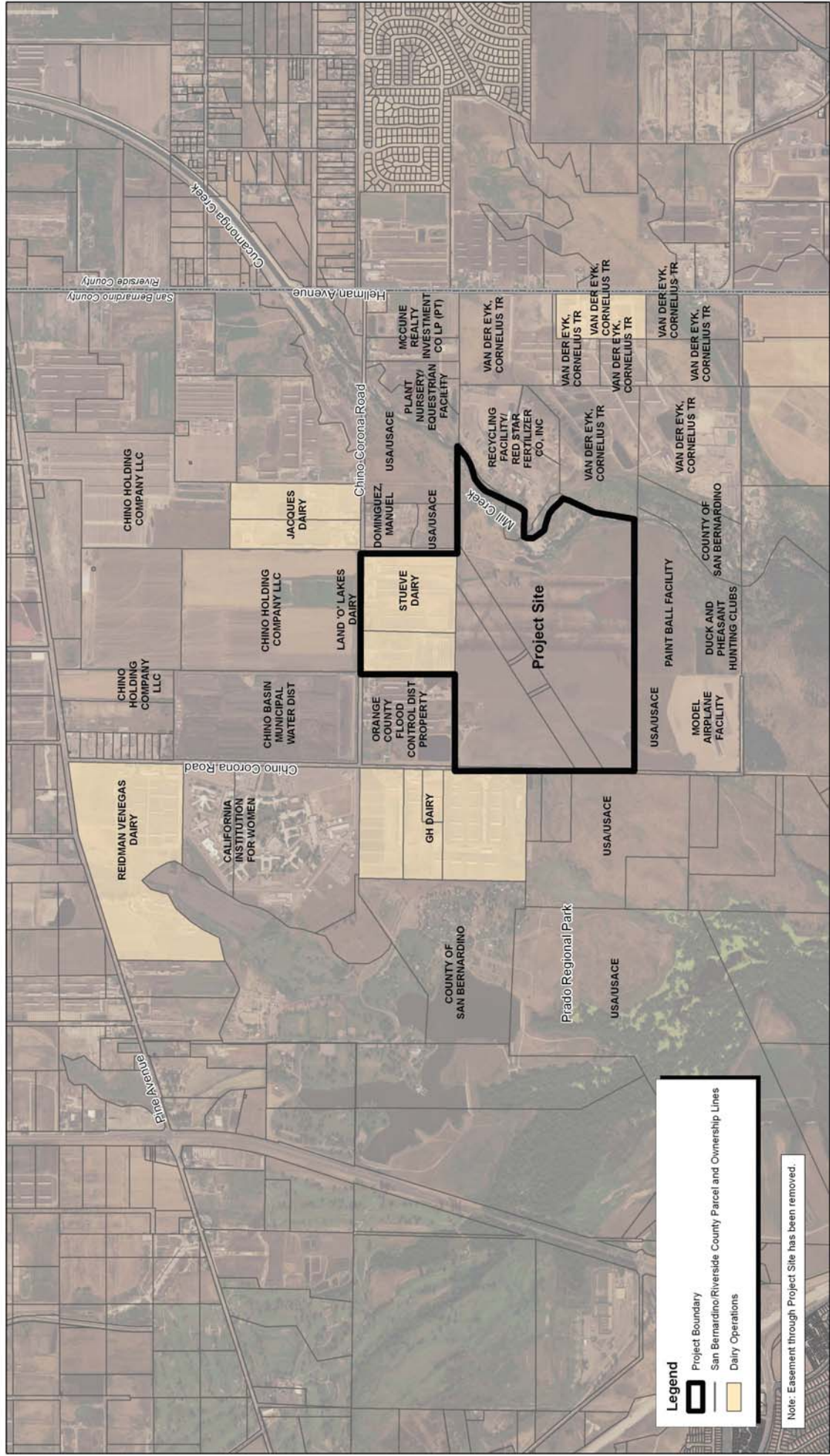


Michael Brandman Associates

05760031 • 12/2007 | 3-3_local_usgs.mxd

Exhibit 3-3 Local Vicinity USGS Map

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Source: San Bernardino County NAIP 2005.

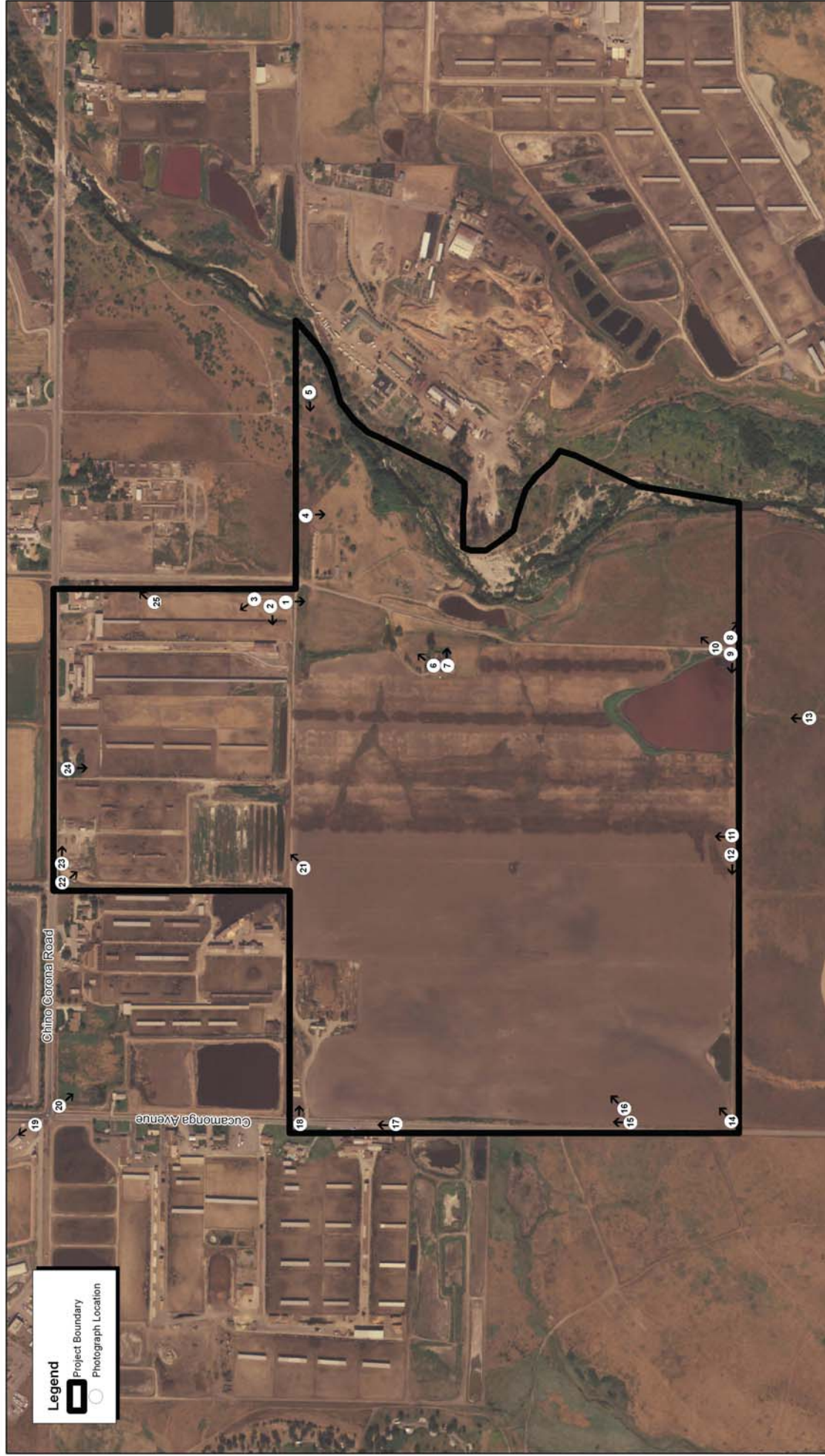


05760031 • 08/2008 | 3-4_site_surrounding_land_uses.mxd



Exhibit 3-4 Site and Surrounding Land Uses

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Source: San Bernardino County NAIP 2005, MBA Field Data, 2007.



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Exhibit 3-5 Photograph Location Map

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Photograph 1: Southern view of the Project site showing dirt roads located throughout the Project site.



Photograph 2: Western view of the Project site showing the active dairy operations and transmission lines running east-west within and along the boundary of the Project site.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5a_site_photos_1and2.cdr

Exhibit 3-5a Site Photographs 1 and 2

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Photograph 3: Northwestern view of the Project site and onsite active dairy farm.



Photograph 4: Southern view of Project site looking toward Mill Creek, showing farm vehicles and facilities.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5b_site_photos_3and4.cdr

Exhibit 3-5b Site Photographs 3 and 4

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Photograph 5: Western view across Project site. Hills and dairy operations are in background.



Photograph 6: Northeastern view of the ranch house located on a knoll in the eastern-central portion of the Project site.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5c_site_photos_5and6.cdr

Exhibit 3-5c Site Photographs 5 and 6

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Photograph 7: Eastern view of the Project site showing wastewater detention lagoon/holding pond, with Red Star Fertilizer Company facilities beyond.



Photograph 8: Southwestern view from the southern project boundary of vacant land bordering the Project site on the south.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5d_site_photos_7and8.cdr

Exhibit 3-5d Site Photographs 7 and 8

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Photograph 9: Western view of the largest wastewater detention lagoon/holding pond located on the Project site, known as Altadena Lake.



Photograph 10: Northeastern view across the Project site toward Mill Creek, with distant views of City of Ontario and distant hills.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 05/2008 | 3-5e_site_photos_9and10.cdr

Exhibit 3-5e Site Photographs 9 and 10

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Photograph 11: Northern view across the Project site with distant view of dairy operations, City of Ontario and distant hills.



Photograph 12: Western view along the Project site's southern boundary.

Source: Michael Brandman Associates, 2007.



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Exhibit 3-5f Site Photographs 11 and 12

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Photograph 13: Northern view towards Project site standing on USACE property, south of the Project site. Charred tree remains indicate controlled-burn fire on USACE property prior to January 2007.



Photograph 14: Northeastern view of the Project site showing fallow crop land and distant hills.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

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Exhibit 3-5g Site Photographs 13 and 14

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Photograph 15: Northern view along site's western boundary, showing GH Dairy immediately west of the Project site, and gate blocking thru traffic along Cucamonga Avenue.



Photograph 16: Northeastern view of the Project site with fallow crop land in the foreground and onsite dairy operation and hills in the background.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5h_site_photos_15and16.cdr

Exhibit 3-5h Site Photographs 15 and 16

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Photograph 17: Northern view of the Project site and adjacent OCFCD property, taken along the western boundary of the Project site, showing fallow crop land, transmission lines, City of Ontario and distant hills.



Photograph 18: Eastern view of the Project site, showing utility lines extending east-west across the Project site. Also shown is a barn located in the western portion of the Project site.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

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Exhibit 3-5i Site Photographs 17 and 18

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Photograph 19: Northwestern view of the State of California Institution for Women, located northwest of the Project site.



Photograph 20: Southeastern view of OCFCD property, showing active dairy operations adjacent to the northwestern portion of the Project site.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5j_site_photos_19and20.cdr

Exhibit 3-5j Site Photographs 19 and 20

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Photograph 21: North/northwestern view of the northern portion of the Project site that has been heavily impacted by dairying. Evidence of Burrowing Owl was noted here during the Phase I Cultural Survey.



Photograph 22: Southeastern view of the Project site and active dairy operations.

Source: Michael Brandman Associates, 2007.

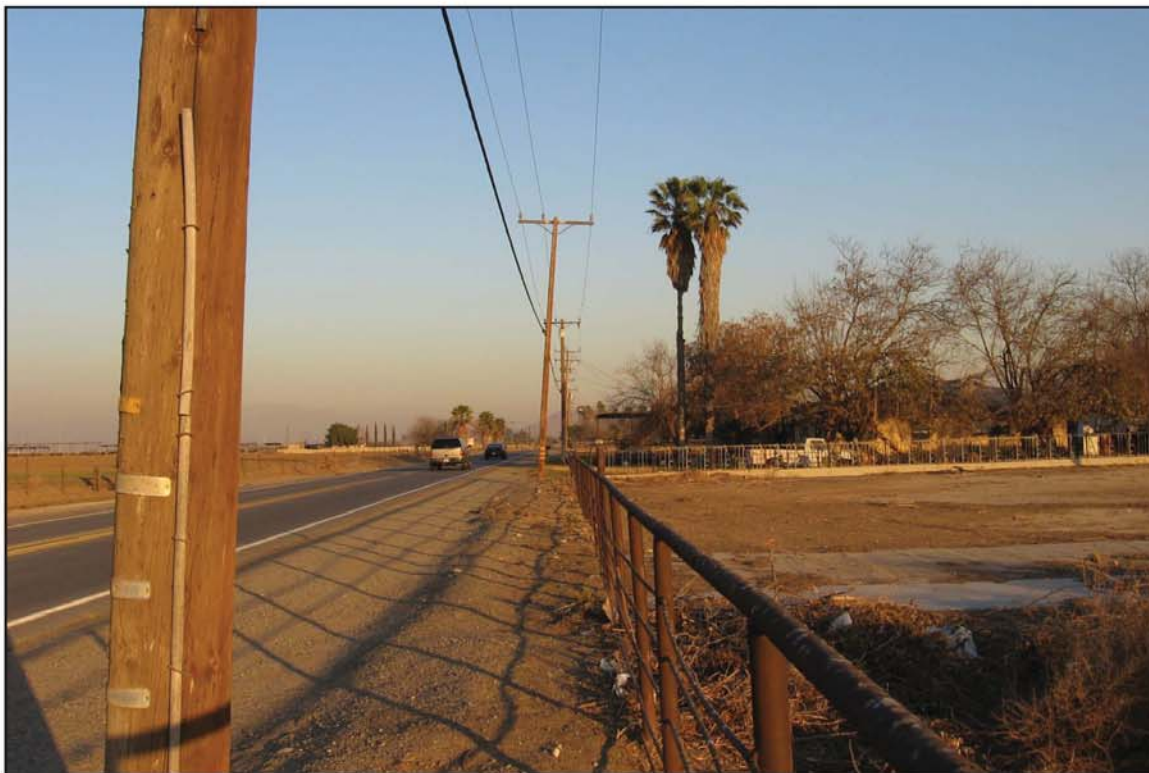


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Exhibit 3-5k Site Photographs 21 and 22

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Photograph 23: Eastern view of onsite residence associated with dairy operations and eastbound Chino Corona Road.



Photograph 24: Southern view of Project site from Chino Corona Road, standing east of onsite residence along site's northern boundary.

Source: Michael Brandman Associates, 2007.



Michael Brandman Associates

05760031 • 11/2007 | 3-5l_site_photos_23and24.cdr

Exhibit 3-5l Site Photographs 23 and 24

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Photograph 25: Northeastern view of property adjacent to the Project site across Comet Street, occupied by farm animals and residences.

Source: Michael Brandman Associates, 2007.

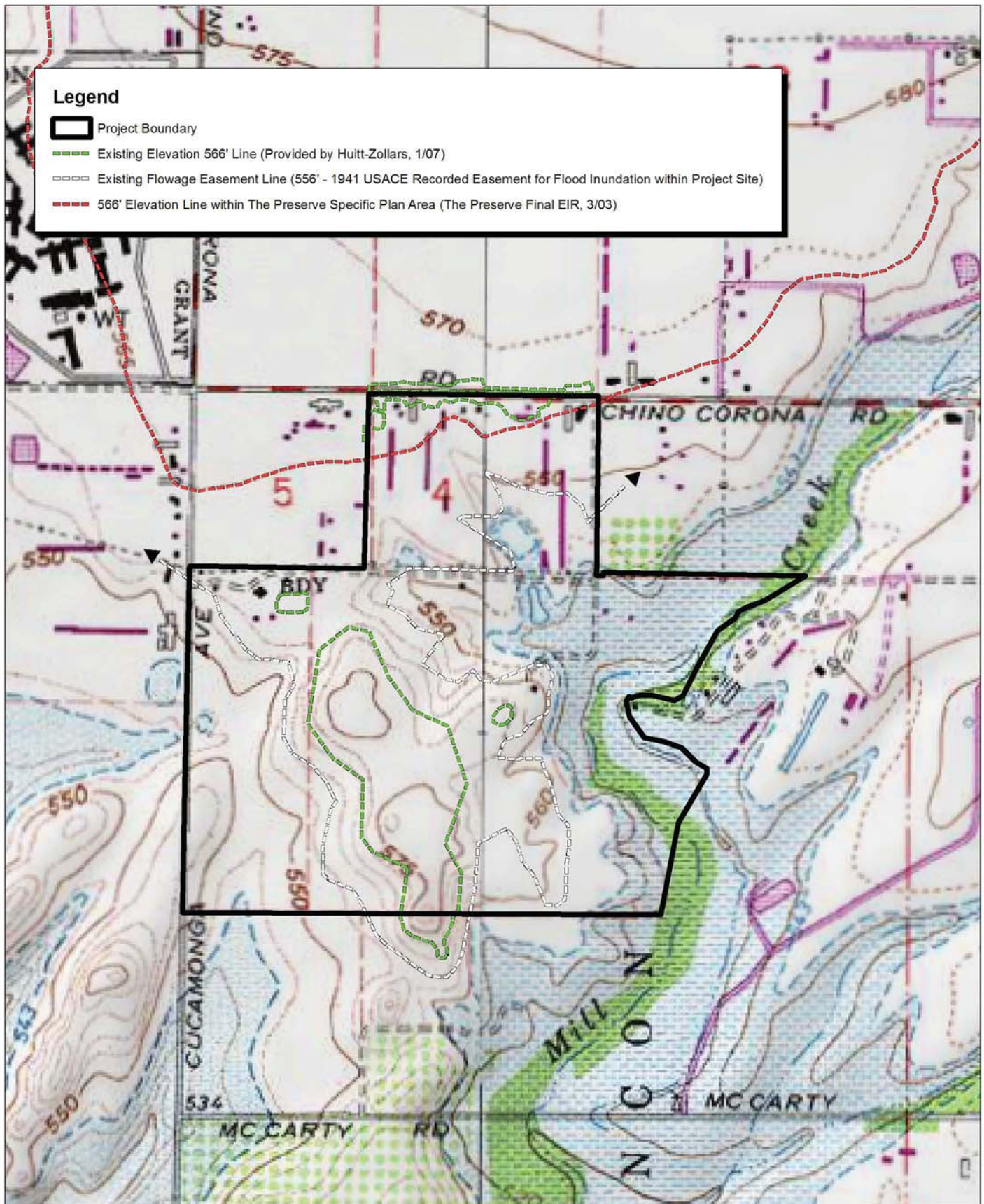


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05760031 • 11/2007 | 3-5m_site_photos_25.cdr

Exhibit 3-5m Site Photograph 25

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Base Map Source: TOPO! USGS Corona North (1978) 7.5' DRG.

Land Use Designations

The Project site for the Edgewater Communities Project is in the southerly portion of The Preserve Specific Plan area. The City of Chino adopted The Preserve Specific Plan in order to design regulations and development standards that are tailored to the features of the planning area. The approved Specific Plan includes a variety of land uses intended to implement the City of Chino's vision for the specific plan area, as defined by the City Council through a series of public workshops in 1999-2000.

Currently, approximately 238 acres of the 273-acre Project site are located below the 566-foot Prado Dam inundation elevation. The area below the 566-foot Prado Dam inundation elevation was planned to provide a combination of active and passive recreation, habitat, and agricultural uses.

The active recreational portion was to accommodate lighted sports fields, golf, and equestrian facilities, while passive recreational areas would provide for natural habitat, and space for agricultural activities potentially reflective of Chino's agricultural heritage. Trail connections were planned to provide eventual access to the Santa Ana River and the Crest to Coast Trail.

The current land use designations for the Edgewater Project site are as follows: Open Space-Recreational, Agricultural & Open Space Natural, Open Space Natural, and Estate Residential (see Exhibit 3-7). The Estate Residential land use designation allows low density residential development at 2 dwelling units per acre. Recreation, open space, and agricultural land uses would also be allowed. An urban buffer/transition area was delineated along the 566' elevation line as currently plotted to provide a transition between urban development and open space uses, acting as an urban limit line.

3.1.3 - Surrounding Land Uses

Surrounding land uses are identified in Exhibit 3-4.

East

The eastern boundary of the Project site is formed in part by Mill Creek. Across Mill Creek to the east, there is an equestrian facility, a green waste recycling/fertilizer plant, and limited plant nursery operations. To the east of the northern portion of the Project site just south of Chino Corona Road lies a rural residence and property owned by USACE (see Exhibit 3-4).

North

Land uses immediately north of the Project site are the Land O'Lakes Dairy, two dairy residences, a mobile home and other dairy operations. Further north lie developed residential neighborhoods within The Preserve above Pine Avenue, and Chino Municipal Airport. The California Institution for Men lies to the northwest (see Exhibit 3-2).

West

Immediately west of the Project site at the intersection of Chino Corona Road and Cucamonga Avenue is property owned by the Orange County Flood Control District, currently occupied by an active dairy operation with onsite residences. West of Cucamonga Avenue is another active dairy operation. These two dairies together are called GH Dairies #1 and #2. The California Institution for Women lies northwest of the intersection of Chino Corona Road and Cucamonga Avenue. Prado Regional Park lies directly west, accessible from Euclid Avenue.

South

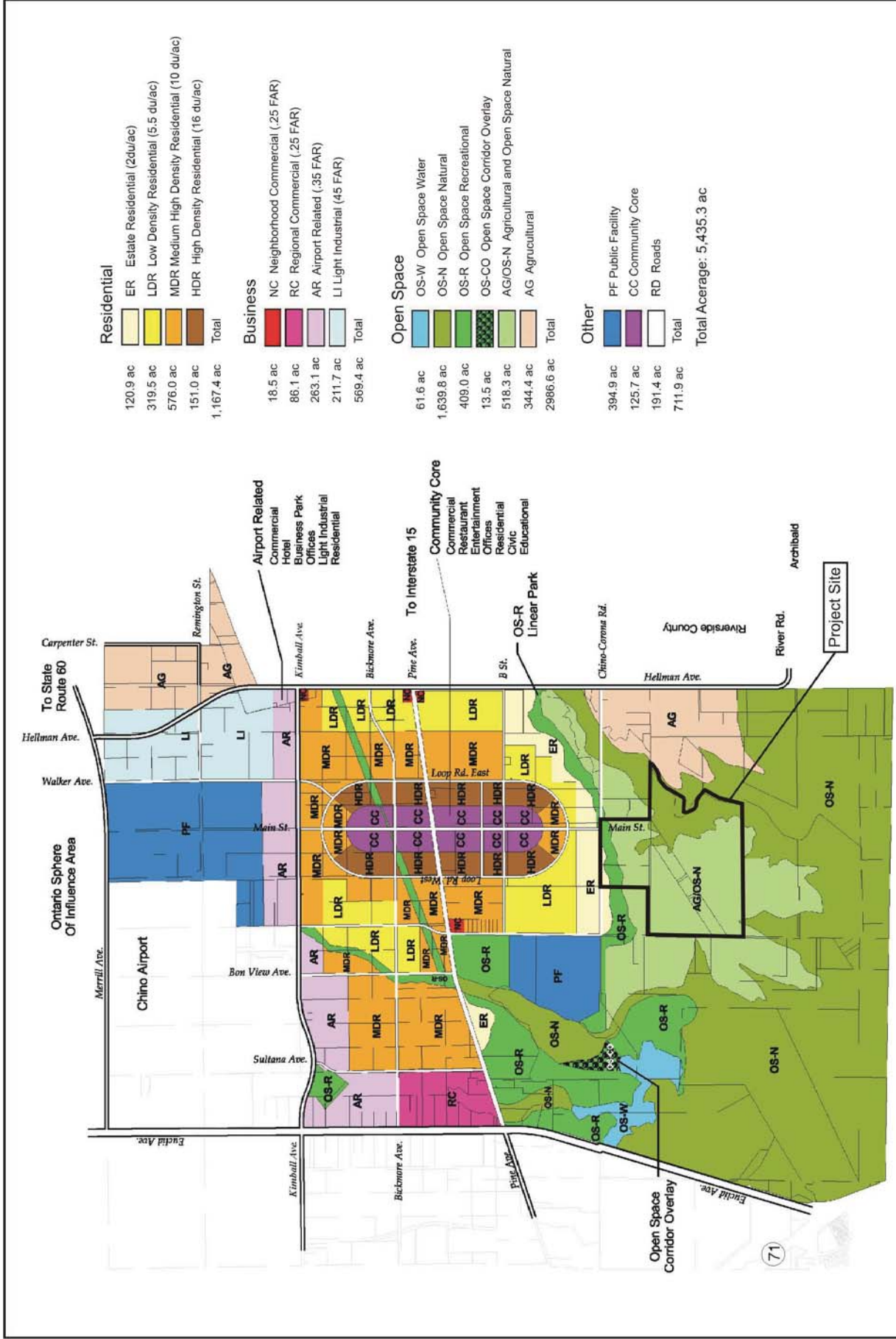
To the south of the Project site lies property owned by the US Army Corps of Engineers (USACE). Other uses include Hunting Clubs (duck and pheasant), a remote-operated airplane facility operated by the San Bernardino County Department of Public Works - Regional Parks Division, and a paint ball facility.

3.2 - Project Characteristics**3.2.1 - Proposed Project**

The proposed Edgewater Communities Project is a water-oriented residential development planned to contain: 1) a range of residential densities; 2) five man-made lakes; 3) natural habitat areas; 4) open space areas accommodating active and passive recreational uses and incorporating multi-purpose trails capable of accommodating pedestrian and bicycle transit, as well as equestrian trails in some locations; and 5) parcels designated for a church, private school and museum/retail uses. Table 3-1 provides a statistical summary of the proposed development concept. Exhibit 3-8 contains the Project plan/land uses proposed for the Project site. Exhibit 3-9 shows The Preserve Land Use Plan with proposed Edgewater Project designations.

Table 3-1: Edgewater Communities Statistical Summary

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Total Acreage (Gross Acres)
Residential	Low Density	537	97.76	
	Medium Density	287	28.70	
	High Density	250	15.63	
Subtotal				142.09 ¹
Open Space	OS/Recreation		71.39 ²	
	OS/Water		39.22	
	OS/Natural		20.23	
Subtotal				130.84
Total		1,074	272.93	272.93



Source: The Preserve Final EIR, March 2003.



MAP NOT TO SCALE

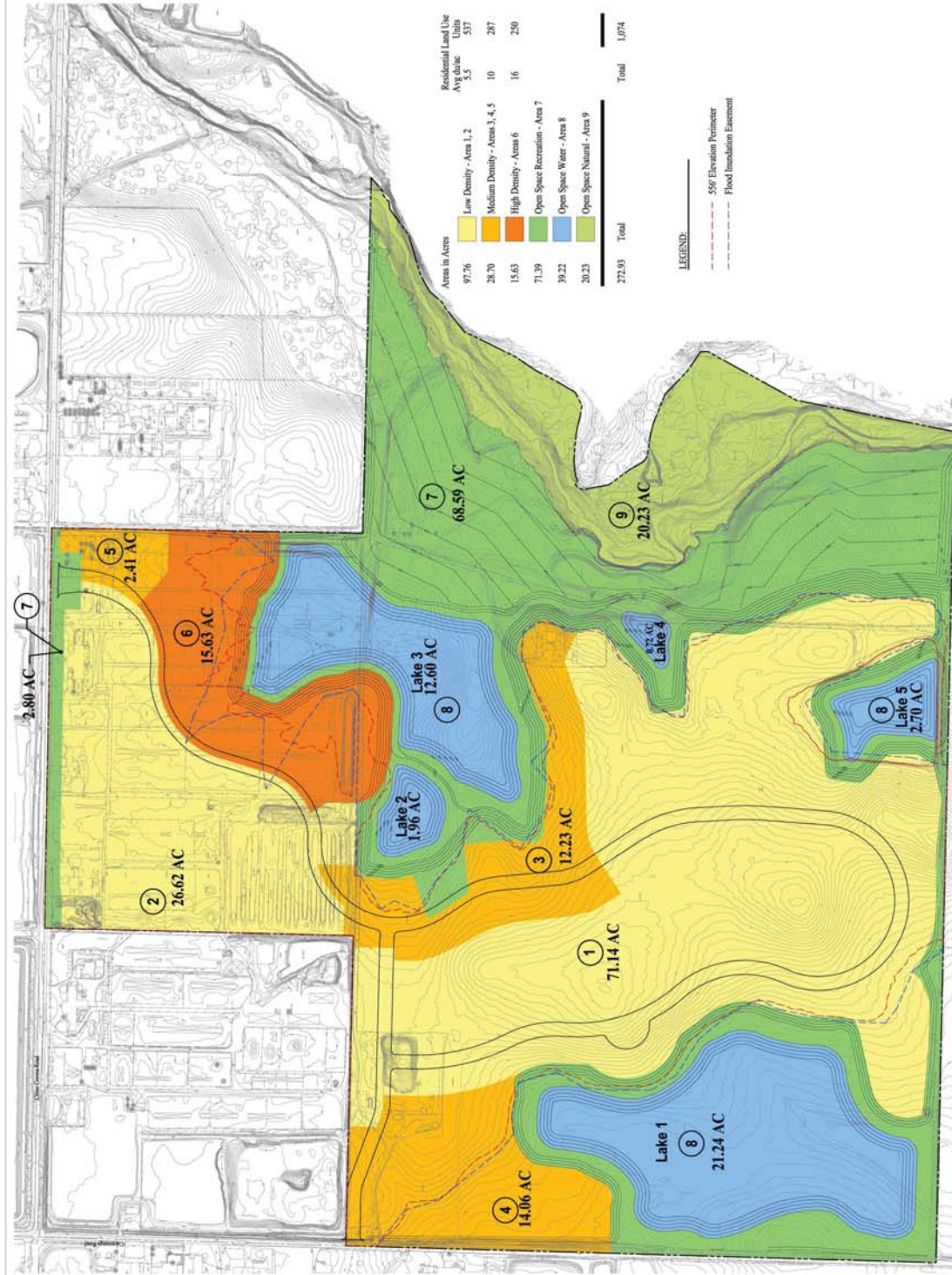
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Exhibit 3-7

The Preserve Land Use Plan

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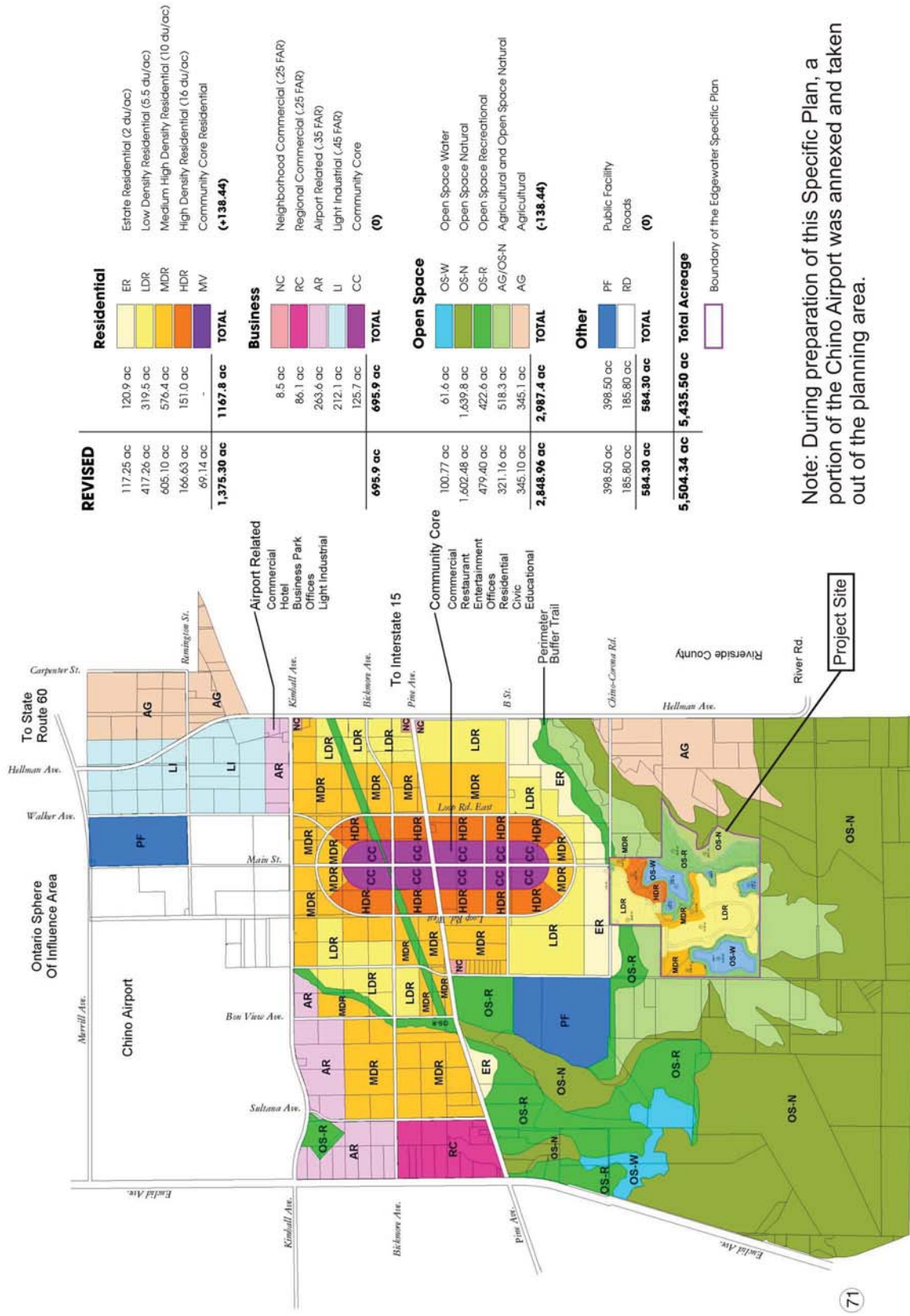
Source: Huitt-Zollars, Inc., PBR Planning, December 8, 2006.



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Exhibit 3-8 Project Plan / Land Use

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Note: During preparation of this Specific Plan, a portion of the Chino Airport was annexed and taken out of the planning area.

Source: PBR, April 2007.



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05760031 • 05/2008 | 3-9 preserve land use plan proposed designations.cdr

Table 3-1 (Cont.): Edgewater Communities Statistical Summary

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Total Acreage (Gross Acres)
Notes: ¹ 2.77 acres of the 142.09-acre residential area is planned for public dedication to additional street right of way for Chino Corona Road and Cucamonga Avenue. ² Includes acreage that can be devoted to typical neighborhood and/or community park uses, as well as recreational acreage whose features would be tied more closely to the lakes and urban buffer/transition area within the Project site.				

Community Paseo and Open Space System

A community paseo and open space system within the Edgewater Project is planned as a system of trails and linear open spaces that connect the major features of the proposed Project with the approved features of The Preserve, providing pedestrian and bicycling opportunities within the Project site and surrounding area.

The Project paseo and open space system would link the existing and planned neighborhoods within The Preserve with the open space, water, and natural features within the Project site. An urban buffer/transition area is delineated along the 566' elevation line as currently plotted to provide a transition between urban development and open space uses, acting as an urban limit line. The urban buffer/transition area is planned to contain recreational trails, a landscaped barrier and transition zone leading into open space/habitat areas.

The Project has been planned to be linked via paseos and local collector roads with The Preserve Community Core, approved as part of The Preserve Specific Plan, and envisioned as a multi-purpose "promenade" to serve as the backbone of the community. The Community Core is planned to provide a mixture of entertainment, commercial, civic, cultural, educational, religious, and residential uses. The proposed Project is planned to include a concentration of residential densities oriented toward the lake/open space features, and additional church/private school and museum/retail facilities planned to be contained within the low-, medium-, and high-density residential areas.

Water Features

The proposed Project includes five lakes (see Exhibit 3-8). The five lakes are planned to offer varying degrees of open space or recreational opportunities. No swimming will be allowed, but the lakes are suitable for fishing and non-motorized boats. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area; Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.

The lakes will be filled with recycled water and maintained by the Project Homeowner's Association. The lakes will not be filled all at once, however, but in phases and would require approximately 153 million gallons of water (equivalent to approximately 470 acre-feet), requiring approximately 85 days to fill at a maximum rate of 6,250 gallons per minute. On an annual basis, the lakes will require a total water usage due to evaporation of approximately 300 acre-feet per year of water. Lake replenishment demands are assumed to occur at night, between 9:00 PM and 5:00 AM. A flow of approximately 900 gallons per minute (gpm) will be required to replenish all five lakes over an 8-hour period during peak demand in the summer months.

Infrastructure Improvements

The Preserve comprises Subarea 2 within the City of Chino, within which the Project site is contained. The existing land use designations on the Project site will allow low density residential development (2 dwelling units per acre on 3.65 acres or 7 units total), and recreation, open space and agricultural land uses. Infrastructure plans developed as part of The Preserve planning effort did not account for residential development on more than 3.65 acres within the Edgewater site.

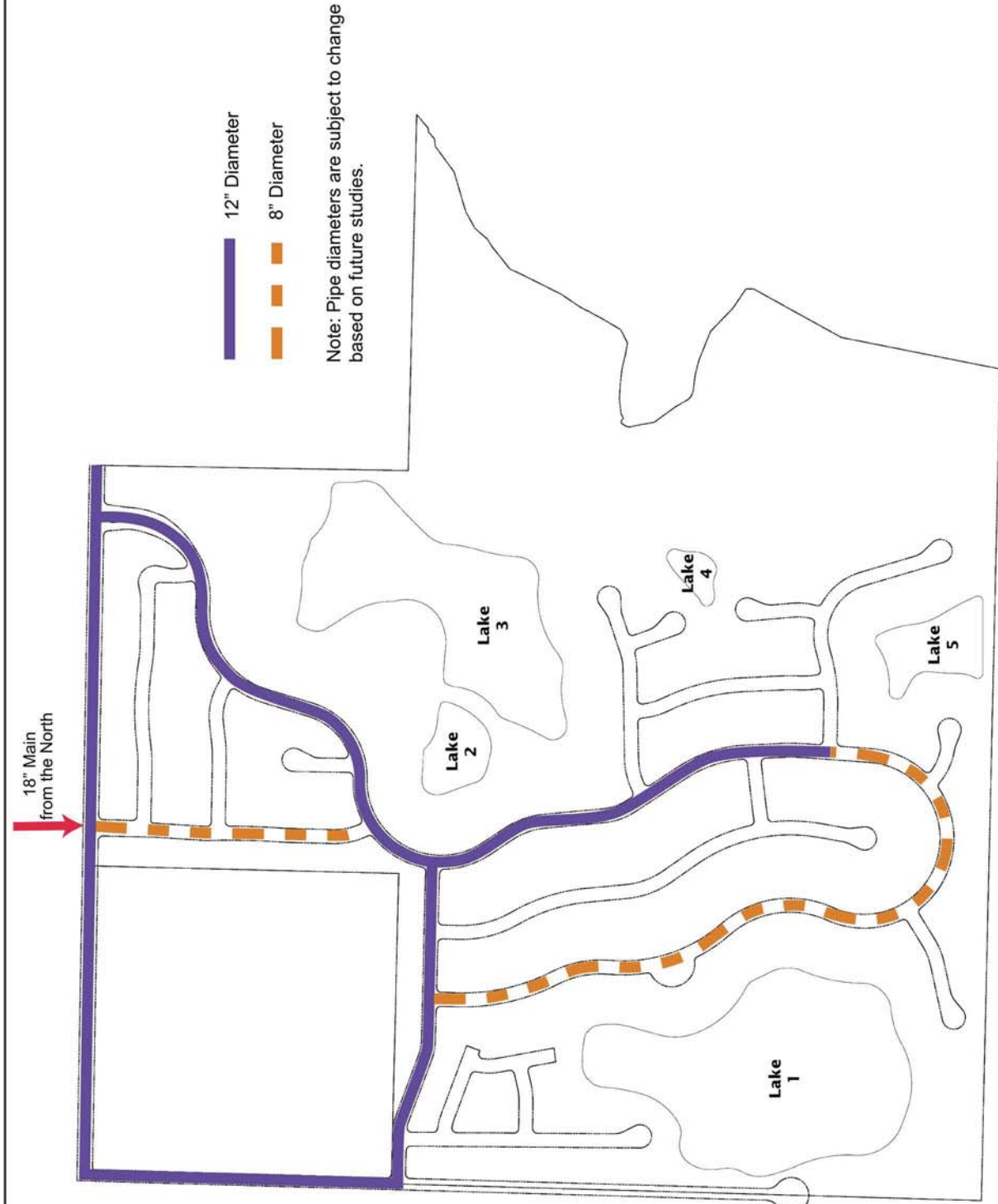
To support development of the Project site as proposed, water, wastewater, drainage, and utility systems have been designed to serve development within the Project site (see Exhibits 3-10 through 3-13). Individual Project studies for these technical areas are available in the City of Chino Community Development Department (see Section 11 of this Draft EIR for referenced studies utilized in EIR preparation). The following is a summary of the major infrastructure features of the Project.

Water

The proposed Project would have a dual (potable and recycled) water system (see Exhibits 3-10 and 3-11). A standalone potable system would be developed has been described for the Project. Based on the Water System Master Plan Update (MWH, August October 2007), this system will obtain water from a water well. The specific location of this well has not been determined. The well would be sized to meet the Maximum Day Demand (MDD) of the proposed Project.

Wastewater

Wastewater generated from the Project will be channeled via the internal Project sewer collection system to two lift stations. Based on a 2008 update to the Sewer Update Report (contained in Appendix K), the two lift stations will channel wastewater flows north via force mains to a proposed gravity sewer in Chino Corona Road, where it will be conveyed to a proposed sewer lift station located at the southern terminus of Johnson Avenue (see Exhibit 3-12). At buildout, the proposed Edgewater Project would contribute approximately 10 percent of the projected average daily flows tributary to the Johnson Avenue Lift Station. Flows would then be conveyed to Regional Plant (RP)-5 via a proposed force main and the Kimball Avenue Sewer Interceptor System. RP-5, located at the southeast corner of Kimball Avenue and El Prado Road, was opened in March 2004 to provide



12" Diameter
8" Diameter

Note: Pipe diameters are subject to change based on future studies.

Source: PBR, May 2008.



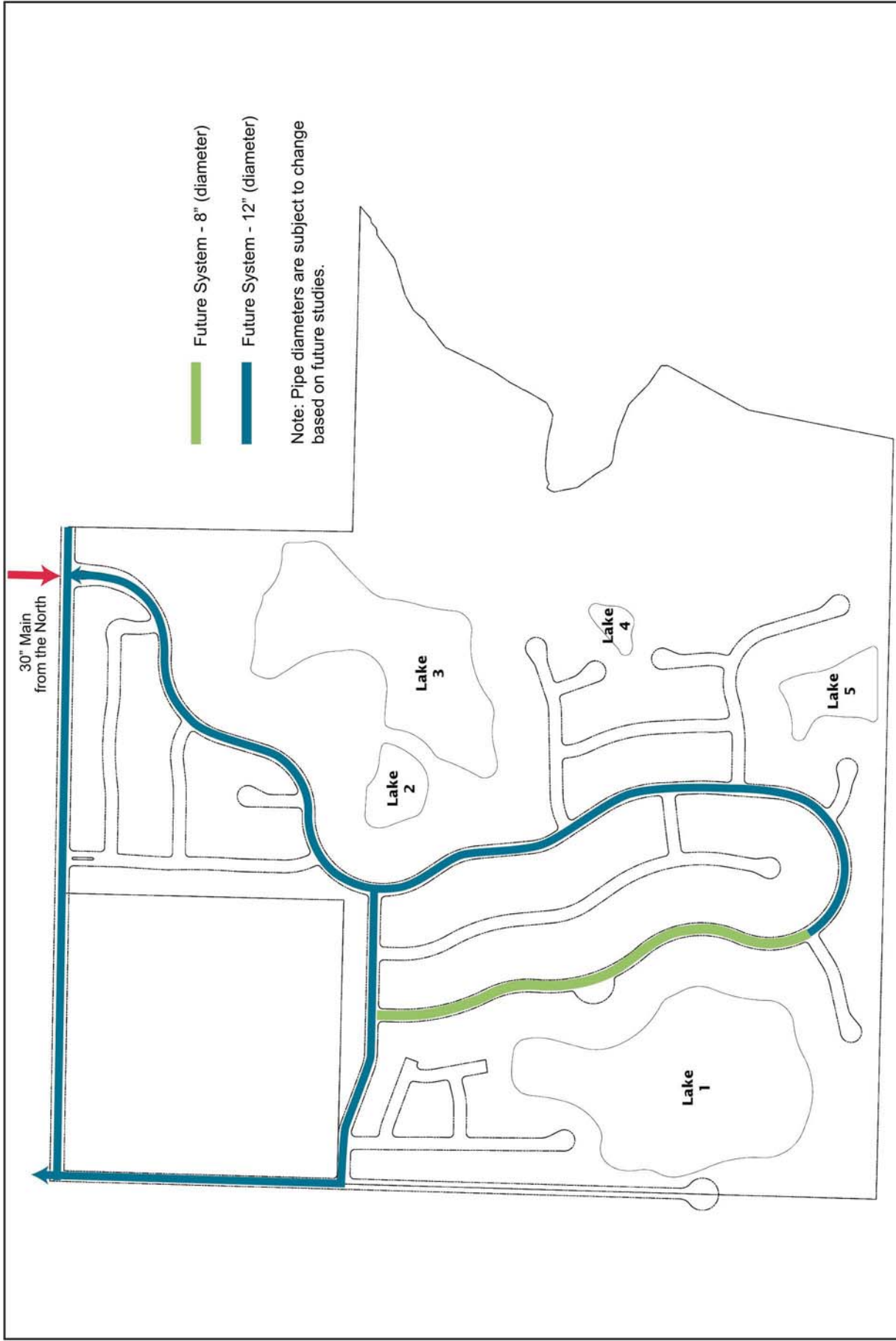
MAP NOT TO SCALE

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Exhibit 3-10 Proposed Domestic Water System

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Source: PBR, May 2008.



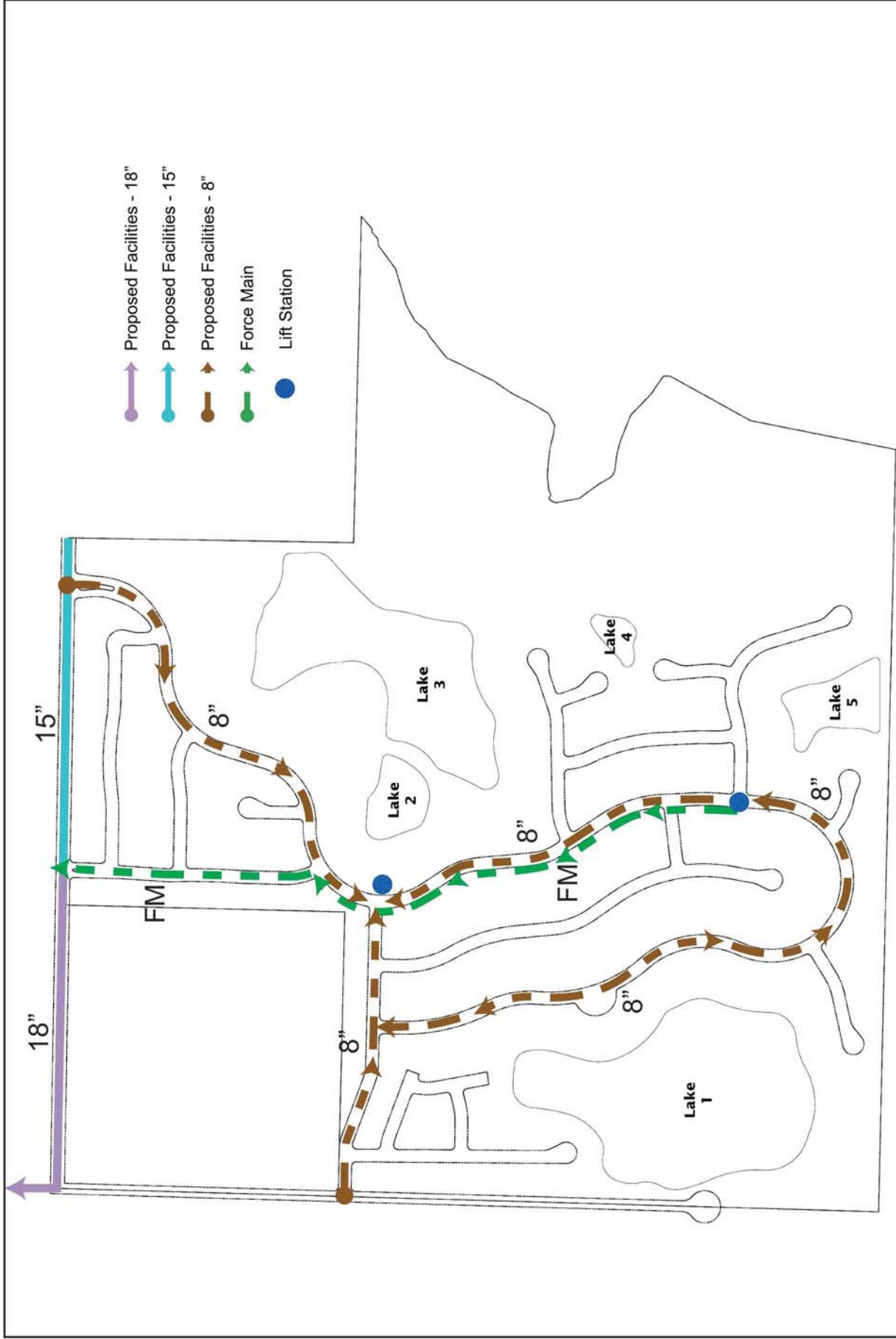
MAP NOT TO SCALE

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05760031 • 05/2008 | 3-11_proposed_reclaimed_water_system.cdr

Exhibit 3-11 Proposed Reclaimed Water System

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Source: PBR, May 2008.



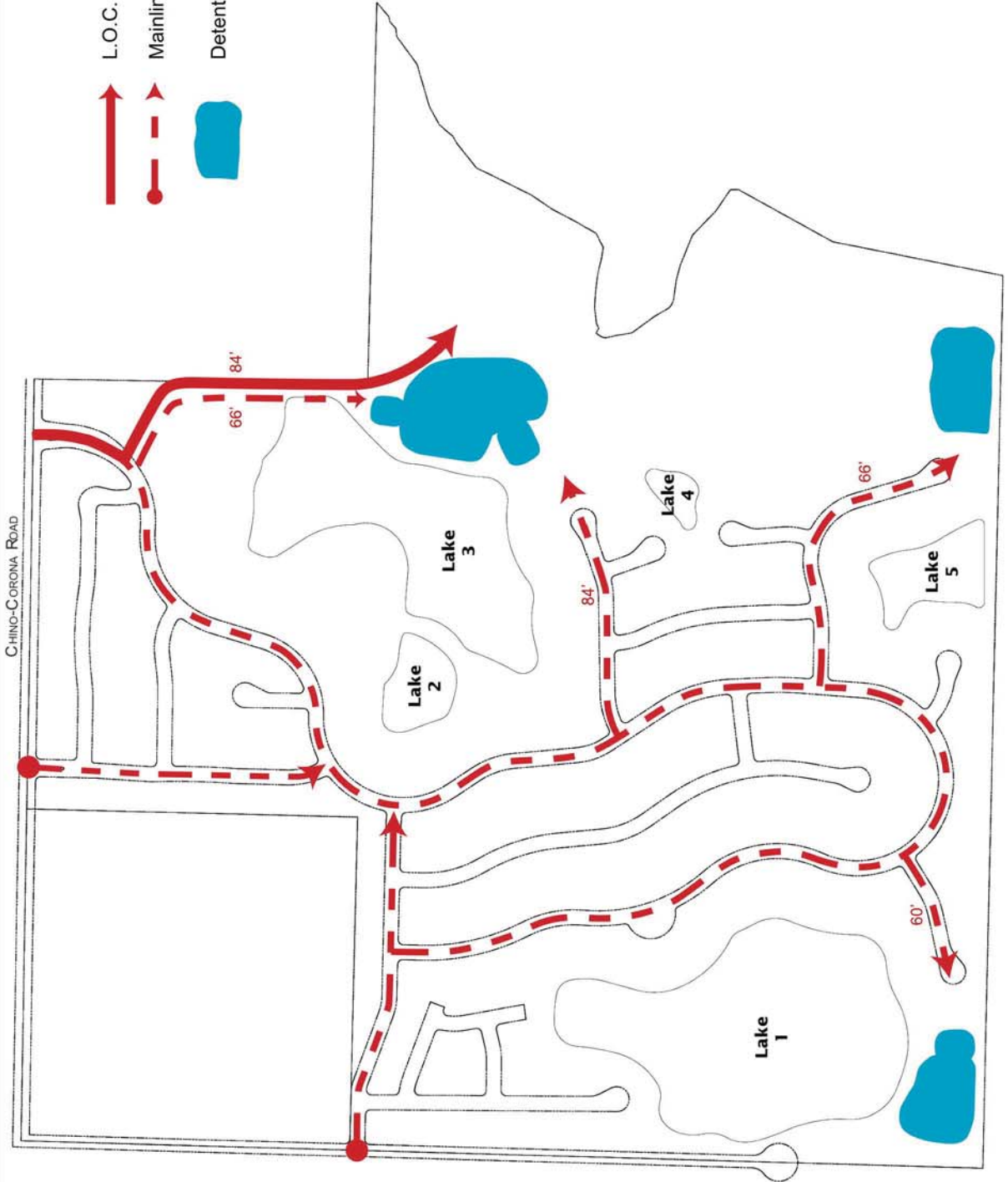
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MAP NOT TO SCALE

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Exhibit 3-12 Sanitary Sewer Plan

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Source: PBR, May 2008.



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MAP NOT TO SCALE

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Exhibit 3-13 Storm Drainage Plan

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tertiary wastewater treatment. All future wastewater generated within the Project will be treated at RP-5 by IEUA. IEUA operates their treatment plants in accordance with the Regional Water Quality Control Board (RWQCB) wastewater treatment requirements.

Drainage

A Storm Drain Master Plan Update Report, Subarea 2 (“Storm Drain Report”) was prepared in December 2007, by Bureau Veritas North America, Inc. (contained in Appendix K) to incorporate the proposed Edgewater Project, and to incorporate revisions to Master Plan Drainage Basins “B”, “D”, and “J”, as included in the Amendment to Master Plan of Drainage for Subarea 2 (2004). The study area for the Storm Drain Report encompasses approximately 8.8 square miles of agricultural and open space property adjacent to Cucamonga Creek Channel, and upstream of the US Army Corps of Engineers’ Prado Flood Control Basin. A total of 10 drainage basins are identified within the developable portions of the study area based on the flow pattern of surface runoff. The northern portion of the Edgewater Project site is located within two drainage basins designated as F and G, depicted in the Storm Drain Report in Figure No. 3 (see Appendix K).

Project implementation will require construction of new storm water drainage facilities (see Exhibit 3-13). Storm water runoff from the proposed Project will be channeled into two new principal main line storm drains associated with drainage basin F and G, designated as Line F and Line G, respectively. Line F is a 42-inch to 84-inch diameter storm drain that conveys runoff southward and discharges flow east of the Project site into the Prado Flood Control Basin. Line G is a 48-inch to 72-inch diameter storm drain that conveys runoff southward and discharges this flow west of the Project site into the Prado Flood Control Basin. Drainage facilities would be designed to the standards and criteria of the City of Chino and San Bernardino County Flood Control District.

The remainder of the Project site will be serviced by a series of new local storm drains that will be independent of these mainline drainage facilities. These local storm drains will convey runoff to one of three detention basins to be constructed onsite. Pursuant to City requirements, the necessary facilities would be constructed either prior to or in phase with planned development.

The quantity and quality of storm water runoff leaving the Project site will meet requirements set forth in the applicable municipal storm sewer National Pollutant Discharge Elimination System (NPDES) permit for this region of San Bernardino County (Order No. R8-2002-0012, NPDES Permit No. CAS618036), adopted by the Santa Ana Regional Water Quality Control Board (RWQCB) on April 26, 2002.

Project Circulation

Mobility within the Project and surrounding areas is planned to be accommodated through a roadway system, and trail system, incorporating bicycle, equestrian, and walking trails.

Vehicular Mobility

Access to the Project site will be provided by way of two full-access Project roadways which will intersect the east side of Cucamonga Avenue and the south side of Chino Corona Road (see Exhibit 3-8). The loop backbone street within the Project site, connecting internal neighborhoods and the Project site to areas north, is planned as a two-lane roadway.

Transit Mobility

The transit system planned for The Preserve is two-tiered, consisting of a local, on-site transit system and regional bus service. The transit stops are intended to serve major features, such as The Preserve Community Core, recreational facilities, and other residential neighborhoods. The proposed Project will be linked to the Community Core via paseos and local collector roads. Pedestrian access to transit opportunity at the Community Core will be possible via the trail system contained within the paseos.

Bicycle Mobility

The Project bicycle system is planned to connect major features of the proposed Project with the approved features of The Preserve, and to connect with the regional bicycle system. The area bicycle system is composed of on-street (Class II) and off-street (Class I) pathways. In many instances, the Class I facilities are incorporated into the community paseo and open space system. Additional opportunity for provision of bicycle, pedestrian, and equestrian trails could be provided within an Urban Buffer, addressed in The Preserve Resources Management Plan (January 2003), to be created to provide transition between urban development above the 566' inundation line and open space areas located below the inundation line.

Design Guidelines

The Preserve Specific Plan (March 2003) requires all developers within The Preserve to prepare a set of Design Guidelines for their land holdings to provide a framework for the development of individual neighborhoods within The Preserve and to assure conformance with The Preserve community design objectives. Future design Guidelines for the proposed Edgewater Project will: 1) be tailored to reflect the individual characteristics of the Project site and proposed Project; 2) will comply with City of Chino requirements; and 3) will abide by the stated purpose of the design guidelines, which includes the provision of consistency with The Preserve Plan guiding development principles. Guidelines for the northern portion of the site, for example, will provide a strong connection to the Community Core and residential development north of Chino Corona Road. Guidelines for the southern portion of the site will reflect the hillside and lake characteristics of the Project site. Residential development within the site moving south from Chino Corona Road will be at reduced densities progressing toward the south end of the Project site and away from the Community Core.

Phasing

The opening year for occupancy of the first phase of planned development in the Edgewater Communities Project is anticipated to be 2010. Development phasing is anticipated to occur in three phases. Although the actual rate of development will be dependent on market conditions, buildout of the community is anticipated to occur over a 10-year period as follows: Phase 1 (2010 to 2011), Phase 2 (2012 to 2014), and Phase 3 (2015 to 2019).

3.3 - Project Objectives

Goals and objectives for The Preserve are provided in the Final Program EIR (Section 3.3), and are identified as critical to the development and future use of The Preserve. These goals and objectives for The Preserve are taken from the “Critical Issues, Goals and Objectives Report” (March 2000) which built upon an earlier “vision” statement by the Chino City Council. Following are the goals and objectives provided in the Final Program EIR for The Preserve:

- To achieve a quality environment designed to fit into and incorporate regional surroundings by integrating local environmental features and existing land uses into a cohesive and logical pattern of land uses that provides a broad range of living, working, and recreational opportunities.
- Create an efficient and safe circulation and transportation system, which accommodates the community’s traffic demands and promotes transit usage, provides local connections to public services, and facilitates regional movement.
- Offer a variety of housing opportunities and types within unique, livable neighborhoods.
- Provide a sufficient density of development to support needed infrastructure improvements.
- Phase circulation and infrastructure systems in accordance with related growth.
- Provide a network of habitat and recreational opportunities as well as provide separation between neighborhoods.
- Respect and accommodate natural hazards, such as flooding and seismic hazards.
- Account for and buffer noise-generating uses from noise sensitive uses.
- Integrate design patterns that would assist in reducing air quality impacts.
- Accommodate a broad range of uses that capitalize on adjacent land uses and enhance the City of Chino’s fiscal outlook.
- Implement and administer the development and operation of The Preserve in a manner that is consistent with the approved Specific Plan.

Specific objectives identified for the Edgewater Communities Project are:

- Implement land uses in the Edgewater Project site so that new land uses complement the existing and planned uses within The Preserve Specific Plan area.
- Design a development plan for the Edgewater Project site that integrates with The Preserve Specific Plan in terms of Development Regulations, Traffic & Circulation, Open Space System, Infrastructure, and Landscaping.
- Provide an open-space and lake-oriented community on the Project site that is designed to accommodate hillside conditions while complementing the natural, gently rolling terrain and view characteristics of the site, both within the site toward Project aesthetic features, and of distant mountain views.
- Design a development plan for the Project site that protects existing quality habitat and rehabilitates degraded habitat for plants and wildlife.
- Provide higher density residential uses within close proximity to The Preserve Community Core and to the recreational and open space amenities within the Edgewater Project to promote pedestrian connection to the amenities within the Edgewater Project and Community Core.
- Encourage walkable linkages and connectivity of the Edgewater site through land use siting, and open space and trails, resulting in enhanced access to support services and a higher level of community interaction.
- Plan and develop the Edgewater Project as a cohesive community within The Preserve with a unifying architectural and landscape design themes, utilizing variety in the design of structures within this context.
- Provide a well-planned development that generates revenue in balance with the cost of providing services.
- Provide a mix of high quality, low-, medium-, and high-density residential neighborhoods that have access to the open space and water features of the development and are complemented by private recreational facilities, church/school, and museum/retail uses, but with an emphasis on low-density single-family, large-lot homes.
- Provide a variety of lot configurations for both attached and detached homes, including, but not limited to: zero lot line, “z” lots, and detached condominiums.
- In areas of varied topography, promote site planning techniques that accommodate the natural terrain of the site (versus a grid-like development).

3.4 - Intended Uses of This EIR

Pursuant to California Environmental Quality Act (CEQA) Guidelines 15367, the City of Chino is the Lead Agency for the Project and has principal discretionary authority over the Project and Project approvals. The proposed Project includes the following actions for consideration by the City of Chino Planning Commission and City Council:

- **General Plan Amendment:** A General Plan Amendment would be required to reflect the land uses proposed for the site by the Edgewater Project.
- **Specific Plan Amendment:** The Amendment to The Preserve Specific Plan would change the designation for the Project site from Open Space-Recreation, Agricultural & Open Space Natural, Open Space Natural, and Estate Residential to allow for residential uses. Church, church school, and museum/retail uses would be allowable uses within the proposed residential areas.
- **Williamson Act Contract Cancellation:** Cancellation of a Williamson Act Agricultural Contract is required to accommodate changes on approximately 36 acres of the Project site, identified as APN #1057-211-04. (A non-renewed contract on this portion of the Project site is set to expire on December 31, 2015.)
- **Master Site Approval:** An approved Master Site Plan is required for the development of the proposed land uses associated with the Project.
- **Resource Management Plan:** An approved amendment or revised Resources Management Plan, associated with The Preserve Specific Plan, is necessary to accommodate the land uses proposed with the Project.
- **Tentative Tract Map:** Approved subdivision maps are necessary for public right-of-way dedications and for the land uses proposed with the Project.
- **Development Agreement:** A Development Agreement is to be included in the entitlement package for the proposed Project that will address Project characteristics such as total units, density, development standards, and improvements. (Typical development agreements contain conditions governing further processing of future discretionary approvals [e.g. public benefits beyond which might otherwise be obtainable] and to some extent, provide entitlements for a developer to build a project.)
- **Site Approval and Design Guidelines.** This is to be incorporated at the City's request.

A number of other agencies will serve as Responsible or Trustee Agencies, pursuant to CEQA Guidelines 15381 and 15386, respectively. Agencies with discretionary approval and/or permit authority over some aspect of the Project that may utilize information in this Draft EIR include, but are not limited to, the following:

- City of Chino
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- California Department of Transportation
- Regional Water Quality Control Board
- California Department of Fish and Game
- South Coast Air Quality Management District
- San Bernardino County Health Department
- San Bernardino County Flood Control Department
- San Bernardino Associated Governments
- Southern California Association of Governments
- Chino Basin Water Master
- Inland Empire Utility Agency
- Chino Valley Unified School District

3.5 - Cumulative Projects

Cumulative impacts refer to the combined effect of Project impacts with the impacts of other past, present, and reasonably foreseeable future projects. As set forth in CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts, as well as the likelihood of their occurrence attributable to the Project alone. As stated in CEQA, Title 14, Section 21083(b), “a project may have a significant effect on the environment if the possible effects of a project are individually limited but cumulatively considerable.”

According to the State CEQA Guidelines:

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable and which compound or increase other environmental impacts.

- a.) The individual effects may be changes resulting from a single project or a number of separate projects.
- b.) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (California Code of Regulations (CCR), Title 14, Division 6, Chapter 3, §15355.)

In addition, as stated in CEQA Guidelines, it should be noted that:

The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental

effects are cumulatively considerable.” (CCR, Title 14, Division 6, Chapter 3, Section 15064[I][5]).

Cumulative impact discussions for each issue area are provided in the technical analyses contained within Section 4, Environmental Impact Analysis.

As previously stated, and as set forth in the CEQA Guidelines, related projects consist of “closely related past, present, and reasonable foreseeable probable future projects that would likely result in similar impacts and are located in the same geographic area.” (CCR, Title 14, Division 6, Chapter 3, Section 15355.)

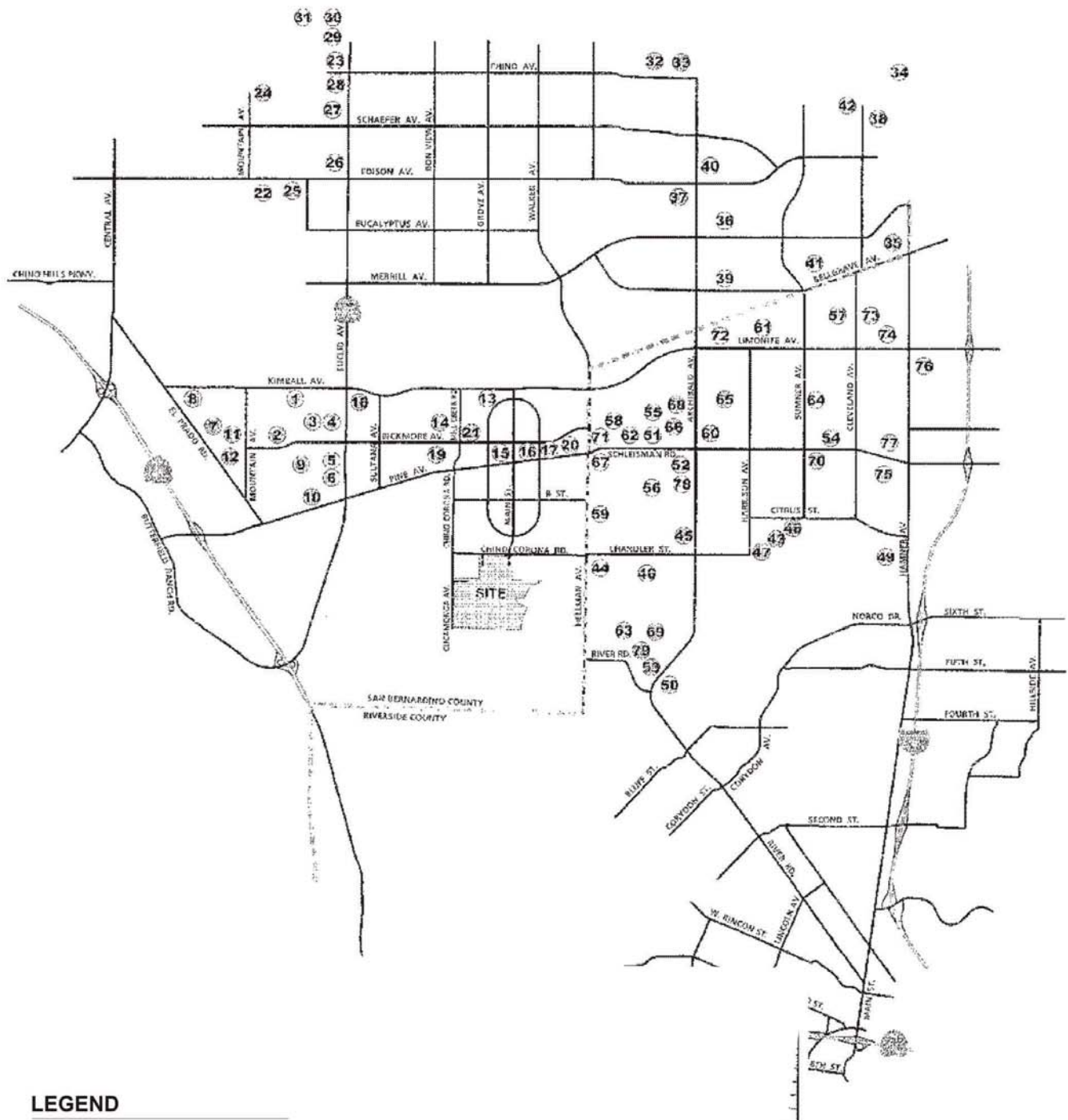
The Project Traffic Impact Analysis (Urban Crossroads 2007) identifies other development projects and land uses within subareas surrounding the Edgewater Project site that are expected to undergo significant near-term growth: The Preserve Subareas 1 and 2, the remainder of the City of Chino, the New Model Colony in the City of Ontario, and the Eastvale area in the County of Riverside. Table 3-2 lists related projects. Exhibit 3-14 shows related project locations.

Table 3-2: 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
Chino Agriculture Preserve Subarea 1				
1	Chino South Business Park Building “E”	Heavy Warehouse	549	TSF
2	Chino South Business Park Building “F”	Heavy Warehouse	182	TSF
3	Watson Commerce Center Building “816”	Heavy Warehouse	297	TSF
4	Watson Commerce Center Building “817”	Heavy Warehouse	423	TSF
5	Watson Commerce Center Building “818”	Heavy Warehouse	301	TSF
6	Watson Commerce Center Building “819”	Heavy Warehouse	273	TSF
7	Chino South Business Park Building “2” (Majestic)	Heavy Warehouse	430	TSF
8	Chino South Business Park Building “3” (Majestic)	Heavy Warehouse	390	TSF
9	Chino South Industrial Park Building “H”	Heavy Warehouse	226	TSF
10	SRG Chino South Industrial Park	Heavy Warehouse	1483	TSF

Table 3-2 (Cont.): 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
11	Mountain Avenue Industrial Building	Heavy Warehouse	220	TSF
12	El Prado Road Industrial Building	Heavy Warehouse	394	TSF
Chino Agriculture Preserve Subarea 2				
13	Apple Farm Residential Project	Townhomes/Condominiums	98	DU
		Single-Family Detached Residential	47	DU
14	Tentative Tract Map 16797	Single-Family Detached Residential	180	DU
15	Brehm Residential Development	Single-Family Detached Residential	95	DU
16	The Preserve (Phase I)	Apartment	137	DU
		Church	156	TSF
		Community Rec Center	12	TSF
		Condo/Townhouse	1121	DU
		Neighborhood/Pocket Parks	11	AC
		Single-Family Detached Residential	347	DU
		Elementary School	12	AC
17	The Preserve (Phase II)	Apartment	159	DU
		Church	54	TSF
		Community Rec Center	15	TSF
		Condo/Townhouse	685	DU
		Neighborhood Commercial	16	TSF
		Neighborhood/Pocket Parks	4	AC
		Single-Family Detached Residential	236	DU
18	McBride's Self Storage and RV Storage Project	Self-Storage	148	TSF
		Leasing Office	5	TSF
		Living Quarter	1	TSF
		Outdoor R.V. Storage	897	SPACES
		Enclosed R.V. Storage	33	SPACES
		Retail	17	TSF



Source: Urban Crossroads, November 2007.



Not to scale

Michael Brandman Associates

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Exhibit 3-14 Other Development Location Map

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT

Table 3-2 (Cont.): 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
18	Future Development by PGP Partners	Gas Station with Convenience Market	4	TSF
		Retail	12	TSF
		Office	29	TSF
		Light Industrial	40	TSF
19	Van Vliet Site	Apartment	250	DU
		Townhomes/Condominiums	461	DU
		Single-Family Detached Residential	231	DU
20	De Boer Site	Single-Family Detached Residential	305	DU
		Townhomes/Condominiums	76	DU
		Shopping Center	33	TSF
21	TAZ 32	Single-Family Detached Residential	162	DU
Remainder of the City of Chino				
22	College Park (Phase I)	Community College	7500	STU
		Park	5	AC
		Single-Family Detached Residential	841	DU
23	Arnel Residential Development Tract 16953	Townhomes/Condominiums	50	DU
		Single-Family Detached Residential	144	DU
24	Single Family Detached Housing	Single-Family Detached Residential	245	DU
25	Pinnacle Homes	Single-Family Detached Residential	65	DU
26	Thayer - Calvary Reformed Church	Church/Day Care	122	TSF
27	Shopping Center (150,000 SF)	Shopping Center	150	TSF
28	Crystal Lane Residential Development	Townhomes/Condominiums	236	DU
		Single-Family Detached Residential	72	DU
29	Future Townhomes (4.63 acres)	Townhomes/Condominiums	93	DU
30	Shopping Center (15.01 acres)	Shopping Center	165	TSF
31	General Office (4.9 acres)	General Office	75	TSF

Table 3-2 (Cont.): 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
New Model Colony (City of Ontario)				
32	Armstrong Ranch	Single-Family Detached Residential	1544	DU
		Commercial	87	TSF
33	Countryside	Single-Family Detached Residential	819	DU
34	Edenglen	Single-Family Detached Residential	277	DU
		Townhomes/Condominiums	307	DU
		Commercial	218	TSF
		Business Park	550	TSF
35	Esperanza	Townhomes/Condominiums	496	DU
		Single-Family Detached Residential	914	DU
36	Great Park	Townhomes/Condominiums	948	DU
		Single-Family Detached Residential	379	DU
37	Parkside	Townhomes/Condominiums	1510	DU
		Single-Family Detached Residential	437	DU
		Commercial	115	TSF
38	Rich Haven	Townhomes/Condominiums	1524	DU
		Single-Family Detached Residential	2732	DU
		Commercial	848	TSF
39	Subarea 29	Single-Family Detached Residential	2291	DU
		Commercial	87	TSF
40	The Avenue	Townhomes/Condominiums	120	DU
		Single-Family Detached Residential	2206	DU
		Commercial	200	TSF
41	The Lakes	Townhomes/Condominiums	1000	DU
		Single-Family Detached Residential	1051	DU
		Commercial	968	TSF
42	West Haven	Single-Family Detached Residential	753	DU
		Commercial	87	TSF
Eastvale Community Plan Area (County of Riverside)				
43	TR 28742	Single-Family Detached Residential	136	DU
44	TR 29997	Single-Family Detached Residential	122	DU
45	TR 30480	Single-Family Detached Residential	306	DU

Table 3-2 (Cont.): 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
46	TR 30576	Single-Family Detached Residential	175	DU
47	TR 30762	Single-Family Detached Residential	181	DU
48	TR 30785	Single-Family Detached Residential	41	DU
49	TR 30817	Single-Family Detached Residential	271	DU
50	TR 30825	Single-Family Detached Residential	35	DU
51	TR 30893	Single-Family Detached Residential	138	DU
52	TR 30896	Single-Family Detached Residential	73	DU
53	TR 30913	Single-Family Detached Residential	266	DU
54	TR 30931	Single-Family Detached Residential	419	DU
55	TR 30933	Single-Family Detached Residential	65	DU
56	TR 30971	Single-Family Detached Residential	526	DU
57	TR 31252	Single-Family Detached Residential	206	DU
58	TR 31309	Single-Family Detached Residential	294	DU
59	TR 31476	Single-Family Detached Residential	153	DU
60	TR 31492	Single-Family Detached Residential	187	DU
61	TR 31580	Single-Family Detached Residential	132	DU
62	TR 31622	Single-Family Detached Residential	95	DU
63	TR 31643	Single-Family Detached Residential	139	DU
64	TR 31725	Single-Family Detached Residential	128	DU
65	TR 31726	Single-Family Detached Residential	188	DU
66	TR 31803	Single-Family Detached Residential	183	DU
67	TR 31826	Single-Family Detached Residential	349	DU
68	TR 31931	Single-Family Detached Residential	47	DU
69	TR 31961	Single-Family Detached Residential	170	DU
70	TR 32125	Single-Family Detached Residential	35	DU
71	TR 32491	Single-Family Detached Residential	153	DU
72	TR 32797	Single-Family Detached Residential	119	DU
73	TR 32821	Single-Family Detached Residential	147	DU
74	TR 32909	Single-Family Detached Residential	140	DU
75	TR 34014	Single-Family Detached Residential	152	DU
76	TR 35400	Townhomes/Condominiums	228	DU

Table 3-2 (Cont.): 2019 Traffic Impact Analysis Interim Year Development Projects by Subarea

#	Project Name	Land Use Description	Quantity (Approx.)	Unit
77	PP 19515	Retail & Fast Food Rest. w/Drive-Thru	8	TSF
		Bank with ATM	4	TSF
78	PP 19946	Shopping Center/Fast Food Rest. w/ Drive Thru/etc.	99	TSF
79	PP 22030	Park	421	TSF
Source: Urban Crossroads, November 2007.				

These related projects, as drawn from the Project Traffic Impact Study and contained within the Project area, defined as the area surrounding the Project site within the City of Chino and vicinity, are viewed collectively in this Draft EIR during the analysis of cumulative impacts, comprising the grouping of future projects against which the Project's contribution to cumulative impacts is assessed.

SECTION 4: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft EIR provides analysis of impacts for all 16 CEQA Guidelines topics plus analysis regarding climate change and greenhouse gases. Sections 4.1 through 4.17 discuss the environmental impacts that may result with approval and implementation of the proposed Project.

Issues Addressed in This EIR

The following environmental issues are addressed in this chapter:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards/Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Climate Change and Greenhouse Gases

Each environmental issue area in Sections 4.1 through 4.17 contains a description of:

1. The environmental setting as it relates to the specific issue.
2. The regulatory framework governing that issue.
3. The methodology used in identifying the issues.
4. The significance criteria.
5. An evaluation of the project-specific impacts and identification of mitigation measures.
6. A determination of the level of significance after mitigation measures are implemented.

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines § 15091 requires that decision-makers mitigate, as completely as feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines § 15093 requires decision-makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and checklist; State, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Because the Project site is contained within The Preserve, existing and future uses of the site were considered as part of the broad 2003 planning effort that culminated in The Preserve Specific Plan and EIR, and certification of the Final EIR. While the impact analysis for the Project considers the impacts on the entire City (or other broader impact area as defined for each individual issue area, as appropriate), an effort has been made to tie information and analyses as contained in the Edgewater Communities Project EIR to The Preserve Specific Plan and Final Program EIR in order to provide a basis of comparison for Project site uses as proposed by the Edgewater Communities Project Plan to site uses permitted under the existing Specific Plan.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact 4.1-1:	An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in the example) and the sequential order of the impact (1 in the example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.

Impact Analysis

A narrative analysis follows the impact statement.

Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to State and federal regulations and agency policies that would fully or partially mitigate the impact. Also, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

AES-1 Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact area it is associated with; the number identifies the sequential order of that mitigation.

Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

4.1 - Aesthetics

4.1.1 - Introduction

This section, from a subjective viewpoint, describes the existing aesthetics setting of the Project site and the potential effects from Project implementation on the site and its surrounding area, including the effect the Project would have on aesthetic features and the aesthetic character of the area.

Descriptions and analysis in this section are based on field reconnaissance and site visits conducted by MBA staff in September 2006 and January 2007, and information contained in the following documents:

- The Preserve Specific Plan and EIR.
- The City of Chino General Plan.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on aesthetics were contained in letters submitted to the City.

4.1.2 - Existing Conditions

The Project area lies within the City of Chino in the Chino Valley. (Project area is defined as the Project site as well as properties surrounding the Project site within the City of Chino and vicinity.) Chino is located in southwestern San Bernardino County and is surrounded by the San Gabriel and San Bernardino Mountains to the north, the San Jacinto Mountains to the east, the Santa Ana Mountains to the south, and the Chino Hills to the west. Elevations of the mountain ranges are from 4,000 to 11,000 feet above mean sea level (msl). Because Chino is relatively flat (600 to 900 feet in elevation) and is void of special water features (e.g., lakes and rivers), the major scenic beauty is the local mountains.

Mill Creek forms the eastern boundary of the Project site. The creek has scenic value, although certain portions have diminished visual value due to trash deposits and debris. In addition to Mill Creek, a dominant scenic resource within the Project site is the agricultural land and the open space value it contributes.

The active onsite dairy is comprised of various structures (e.g., milking barn, cow washing area, milking cow pens, maintenance shed, and feed barn). These structures have been in place for some time, and detract from the overall visual characteristics of the site and surrounding area.

Land uses surrounding the Project site are listed in Section 3.1.3, Surrounding Land Uses. In general, structures associated with the surrounding land uses, which include outdoor storage yards, agriculture objects or machinery, and operational components of the adjacent dairies, do not enhance the visual appeal of the area. The California Institution for Women-Chino (CIW-Chino) is highly visible along

Chino Corona Road. Light sources from CIW-Chino and the high barbed wire perimeter fences are existing adverse aesthetic and visual elements.

Scenic highways in the broader Project area are: State Route (SR)-91 (Riverside Freeway), and local highways Highway 71 and Euclid Avenue/SR-83. SR-91 is an eligible State Scenic Highway, with the portion within Orange County along the Santa Ana River an Officially Designated State Scenic Highway. SR-83/Euclid Avenue is a County Designated Scenic Highway (from 24th Street northwest to San Antonio Dam). SR-71 is an eligible State Scenic Highway. None of these roadways are within the vicinity of the Project site.

Existing Aesthetic and Visual Quality

Site Photographs are provided in Exhibit 3-5 (an aerial view), and Exhibits 3-5a through 3-5m (containing 25 site photographs). These photographs document the visual features of the Project site and surrounding land uses.

Due to the rural nature of the surrounding landscape and limited points of access, limited people view the site from a distance. Onsite and adjacent residents and employees, and vehicle travelers along Chino Corona Road comprise the limited group of persons viewing the Project site. The Project site can also be seen from Cucamonga Avenue, but this roadway is not a through street, so traffic is limited. Given that the Project site's frontage along Chino Corona Road consists of an active dairy operation, views south into the site are limited and are more of the site's central and southern portions (see Site Photograph 24). The site and surrounding landscape consist of similar agricultural and open space features. Wastewater detention lagoons and holding ponds of different sizes are located throughout the site. These lagoons and ponds provide functional rather than aesthetic value. Mill Creek and its associated riparian corridor and natural vegetation provide have an inherent scenic value.

When viewed from within or offsite, the Project area is not distinguishable from the similar surrounding landscape. The presence of agricultural development, dominated by dairy operations on the immediate surrounding lands to the east, north, and west, and the presence of open space to the south, create a common aesthetic rural environment. The wastewater detention lagoons and holding ponds of different sizes located throughout the site contrast with the agricultural lands, open space, and vacant lands. Mill Creek and its natural features provide visual interest. CIW-Chino intrudes on the agricultural and open space character of the Project area.

Visibility and Viewers

Viewers have differing sensitivity to visual change based on their familiarity with the view, the duration of those views (permanent versus intermittent), and their activity, which determines how much attention is paid to the view. Viewers in the actual viewshed of the proposed Project would consist of limited local residential viewers, local recreational and commercial viewers visiting

surrounding land uses, and limited vehicular traffic. Activity type is the crucial indicator in determining viewer sensitivity.

Key Viewpoints

Points along Chino Corona Road on either side of the onsite dairy operation can be considered public vantage points with direct views into the Project site. Views also exist along Cucamonga Avenue.

Residential Viewers

Residential viewers are usually very sensitive to any changes in visual quality because of their familiarity with the view, their investment in the area as homeowners or long-time residents, and their sense of ownership of the view. Their view from a residence or yard is experienced as a visual extension of the property and any changes can result in strong positive or negative reactions. Currently, residential uses with views of the Project site are limited to onsite residents and residents of adjoining properties. Depending on the timing of Project implementation compared to future development of properties within The Preserve north of Chino Corona Road, future residents of The Preserve could have their views affected by conversion of the Project site from open lands to urban uses. Project implementation would establish visually pleasing features through the creation of manmade lakes and a community paseo and open space system, however.

Recreational Viewers

Recreational viewers include people engaged in passive or active recreation. Viewers engaged in most active recreation, such as sports, tend to have only an average sensitivity to visual quality and visual change. Although they are aware of their surroundings, they are usually focused on the activity itself. The faster the pace of the activity, the less they are sensitive to visual quality. People engaged in more passive or slower paced recreation, such as picnicking, photography, nature hikes, horseback riding, or bicycle riding etc., are much more aware of and sensitive to the visual environment. Recreationists in the Project's off-site viewshed can be defined as users of the equestrian facility to the east; users of the hunting clubs, remote-operated airplane facility, and paint ball facility to the south; and users of Prado Regional Park to the west.

Commercial Viewers

Commercial viewers usually have a moderate to low sensitivity to their visual environment, unless the commercial activity is focused on the view. They are concentrated on their driving, their destination, and the commercial activity. Commercial activity in the viewshed includes a recycling/fertilizer production facility and a nursery.

Commuter Viewers

Commuter viewers are typically the largest percentage of viewers for most viewsheds; however, they usually have a moderate to low sensitivity to the visual environment due to their concentration on their destination. The only adjacent commuter route that has limited visibility south into the site is Chino Corona Road, which forms the northernmost boundary of the Project site. Cucamonga Avenue forms the westernmost boundary of the Project site. Because Cucamonga Avenue is not a through

street, viewers of the Project site are limited and would be primarily comprised of residents, employees, and visitors to the GH dairy operations #1 and #2 located on Cucamonga Avenue.

Light and Glare

Light and glare sources are very limited within the Project area due to the lack of structures, streetlights, and hard surfaces. The most significant source of light and glare in the Project area is CIW-Chino. Some illumination is also associated with the onsite and surrounding dairy operations.

4.1.3 - Regulatory Setting

City of Chino General Plan

The City of Chino General Plan, Conservation/Open Space Element (December 1990), identifies goals and policies relating to aesthetics, presented in Table 4.1-1. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.1-1: Conservation/Open Space Element Goals and Policies

Reference	Description
Conservation/Open Space Element	
Goal G5-15	Open Space for Natural Resources Preservation - To encourage the development of open space for preservation of the City's natural resources.
Policy P5-16.1	Maintain Vistas -To ensure that vistas of the San Bernardino and San Gabriel Mountains and the Chino Hills are maintained for aesthetic enjoyment of the residents.
Policy P5-16.2	Pursue Hwy 71 and Euclid Avenue as Scenic Highways - To encourage the designation of State Hwy 71 (Corona Expressway) and State Route 83 (Euclid Avenue) from north to south city limits, respectively, as scenic highway corridors.

The Preserve Specific Plan and EIR

The Preserve EIR (2003) found that implementation of the Specific Plan would not result in significant project or cumulative aesthetic impacts. Specific Plan design guidelines and criteria to minimize visual impacts associated with land use changes were felt to mitigate aesthetic impacts from Specific Plan implementation to less than significant.

4.1.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to aesthetic resources are significant environmental effects, the following questions are analyzed and evaluated: Would the Project:

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

4.1.5 - Impact Analysis and Mitigation Measures

This section discusses potential aesthetic resources impacts associated with the development of the Project. Project implementation will establish a residential, water-oriented community on the Project site that is currently designated for primarily open space and agricultural uses, with limited residential (7 units maximum), resulting in a substantial change in the aesthetic and visual characteristics of the site.

Scenic Vista

Impact 4.1-1:	The Project will not have a substantial adverse effect on a scenic vista. [CEQA Aesthetic Threshold 1(a)]

Impact Analysis

The Conservation/Open Space Element of the Chino General Plan, Policy P5-16.1 (see Table 4.4-1), is designed to ensure that vistas of the San Bernardino and San Gabriel Mountains to the north of the Project site and the Chino Hills to the east of the Project site are maintained for aesthetic enjoyment by City of Chino residents. Due to existing elevations within the Project site between 508 and 579 feet above mean sea level, proposed uses, and expected building heights, and the distance between the Project site and these scenic features, views will not be obstructed. The Project will not have a substantial adverse effect on a scenic vista.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Scenic Resources

Impact 4.1-2:	The Project will not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. [CEQA Aesthetic Threshold 1(b)]

Impact Analysis

Mill Creek, with inherent scenic value, forms the eastern boundary of the Project site, but will be protected and enhanced through Project implementation. The Project site is not within a protected scenic resource area; however, the property was designated for open space and agricultural uses, and conversion of this area to urban uses was not anticipated by the City. Phase I and Phase II Cultural Resource testing and evaluation were performed for the Project site (see Section 4.5 Cultural Resources of this Draft EIR). The house and barn atop the knoll that overlooks the cattle grazing area were evaluated for historical significance and found to be not significant following CEQA guidelines. Scenic highways, SR-91, Highway 71, and Euclid Avenue/SR-83, are not within the vicinity of the Project site. Project implementation will have a less than significant impact on scenic resources.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Existing Visual Character

Impact 4.1-3:	The Project will substantially degrade the existing visual character or quality of the site and its surroundings. [CEQA Aesthetic Threshold 1(c)]

Impact Analysis

Development of the 273-acre Project site will occur over a period of nine years between groundbreaking and buildout. Project implementation could be expected to result in potentially significant impacts to aesthetics related to visual character. The conversion of land zoned for agricultural use to urban uses would be an alteration of the existing visual character. The Project site currently contains an active dairy operation and open land. The dairy portion of the site consists of several residences, barns, associated structures, and waste discharge ponds. Removal of the dairy operation, and provision of the five lakes, community paseo system, and considerable acreage within Project open space areas (natural and recreational), totaling 130.84 acres, could be considered positive aesthetic elements.

Clean-up of the open land within the Project site that has historically accepted wastewater and storm water runoff from the four adjacent dairies, as well as solid and liquid waste from the onsite dairy

operation, is considered beneficial from an odor, water quality and hazards/hazardous materials standpoint. Visually, however, the proposed Project would still convert the predominantly rural landscape of the Project site to urban uses. The relatively flat topography of the Project site along adjacent roadways does not create any natural berms within the Project site to reduce visibility from Chino Corona Road or Cucamonga Avenue. Some visual relief from Project structures will be provided by Project landscaping.

CEQA Aesthetic Threshold 1(c) requires analysis and conclusion as to whether a project would “substantially degrade the existing visual character or quality of the site and its surroundings.” Making such a finding is subjective in nature, and hinges on whether a rural landscape, even though marred by aging structures, is considered inherently more aesthetically pleasing than urban uses. Because the dominant aesthetic and visual quality for this reviewer of the Project site and surrounding area south of Chino Corona Road is that of open land and low intensity rural uses, conversion of the Project site to urban uses is considered an adverse aesthetic and visual impact. Implementation of the Project is, therefore, considered to have the potential to result in significant impacts to aesthetics.

Level of Significance Before Mitigation

Potentially significant. [CEQA Aesthetic Threshold 1(c)]

Mitigation Measures

Project design and design guidelines would ensure a high-quality, water-oriented residential development. Impacts to the existing visual character of the site and its surroundings will nevertheless remain significant.

Level of Significance After Mitigation

Significant. [CEQA Aesthetic Threshold 1(c)]

Light or Glare

Impact 4.1-4:	The Project could create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. [CEQA Aesthetic Threshold 1(d)]

Impact Analysis

Project implementation will introduce a substantial amount of light and glare. Currently, only limited sources of light exist in the Project area, associated with onsite and surrounding agricultural and limited residential uses, and CIW-Chino. Proposed residential, recreational, museum/retail, and church/school uses would result in outdoor residential lighting, street and safety lighting, sign lighting, lighting from active recreational areas (ball fields, etc.), and light emanating from traveling vehicles. City regulations would require submittal of a lighting plan and adherence to design guidelines governing lighting to minimize lighting intensity and incorporate light fixtures that direct light toward intended uses and prevent spillover. Impacts from light and glare can be expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.1-5:	When considered on a regional or cumulative basis, the Project would have an impact on the visual character of the broader Project area.

Impact Analysis

The conversion of the Project site from current agricultural uses and planned open space and agricultural uses with limited residential uses to urbanized uses will change the visual character of the area, and when considered on a regional or cumulative basis, will have a significant cumulative effect on aesthetics and visual character.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

Project design and design guidelines would ensure a high-quality, water-oriented residential development that preserves and enhances habitat for wildlife. Project contribution to cumulative aesthetic impacts on existing visual character will nevertheless remain significant.

Level of Significance After Mitigation

Significant.

4.1.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. In regard to aesthetics, The Preserve EIR (2003) found that implementation of the Specific Plan would not result in significant project or cumulative impacts. Specific Plan design guidelines and criteria to minimize visual impacts associated with land use changes were felt to mitigate aesthetic impacts from Specific Plan implementation to less than significant. Although significant aesthetic impacts at the project and cumulative level are anticipated for the Edgewater Project, the proposed Project also relies on Project design features and guidelines to ensure that if City approval was obtained, Project implementation would result in a high quality residential

development. Edgewater Project design does not conflict with The Preserve Specific Plan design guidelines and criteria.

4.2 - Agricultural Resources

4.2.1 - Introduction

This section describes the existing agricultural resources and potential effects from Project implementation on the Project site and its surrounding area. Descriptions and analysis in this section are based on information derived from the California Department of Conservation's (CDC) California Agricultural Land Evaluation and Site Assessment (LESA) Model worksheets prepared in March 2008 by Michael Brandman Associates and included in this Draft EIR in Appendix B. This section also utilizes the Agricultural Mitigation Fee Investigation prepared for the Project by MBA in August 2008. This study utilized a case study approach to assess a variety of approaches that have been utilized in other areas to mitigate significant impacts to agricultural lands. This report is also included in Appendix B of this Draft EIR.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project that addressed agricultural resources, contained in Appendix A, were received by the City of Chino in order of receipt from the Endangered Habitats League, Southern California Association of Governments (SCAG), and the California Department of Conservation (CDC). Each of these response letters outlined specific issues and topics that the respondents believed should be included for analysis in the EIR.

In regard to agricultural resources, the topics that were identified in the letters were generally consistent with the Thresholds of Significance provided in the CEQA Guidelines and analyzed in detail later in this section. Among the issues noted were: 1) consistency with the long-term land use vision established by the City in previous planning efforts; 2) consistency with Regional Comprehensive Plan policies adopted by the Southern California Association of Governments; 3) loss of land that could be used for future agricultural resources and impacts to existing agricultural lands; 4) impact on Williamson Act lands; 5) loss of open space and biological resources; and 6) analysis of a range of measures and alternatives that could be implemented to mitigate impacts to agricultural resources.

4.2.2 - Existing Conditions

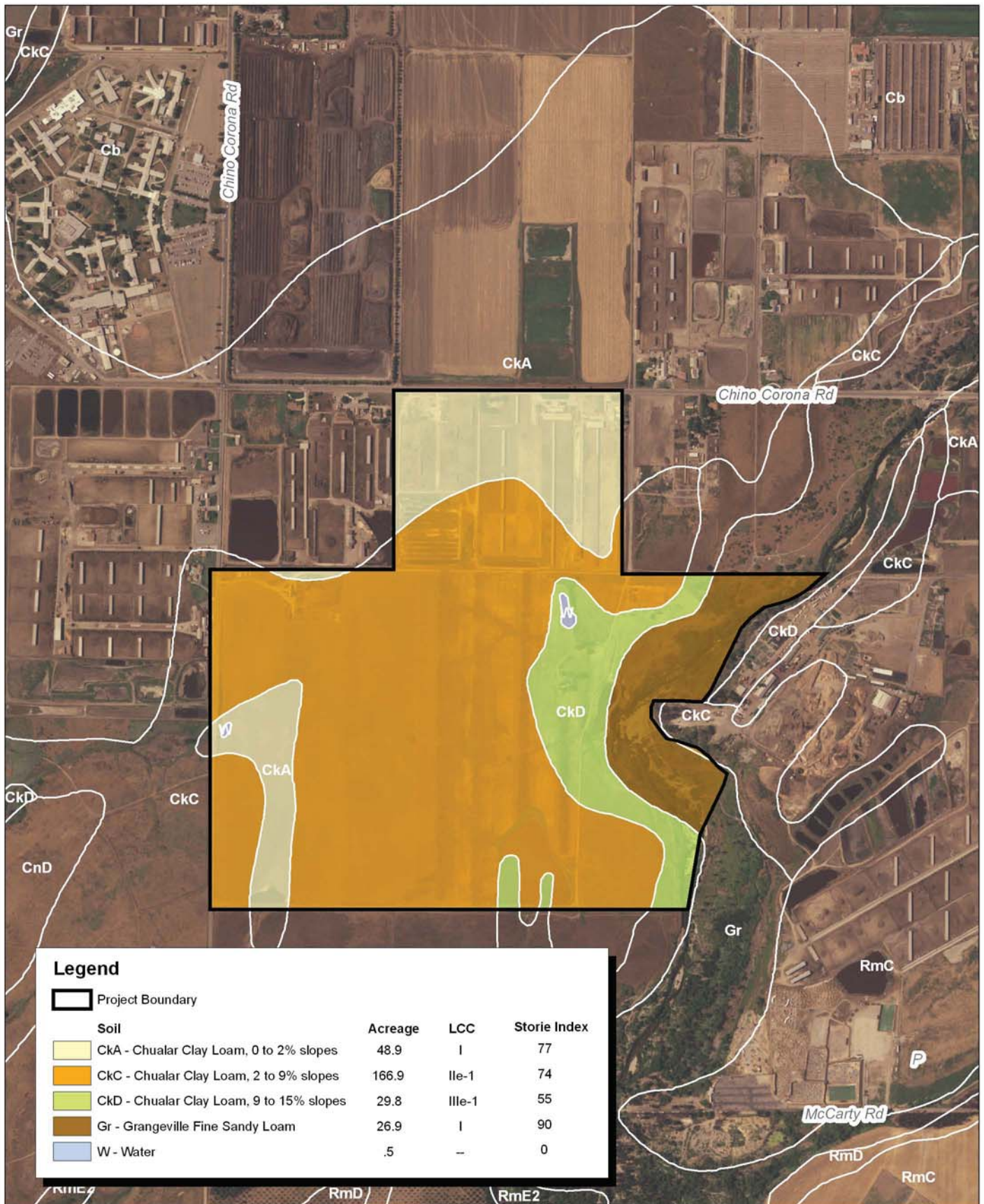
The Project site is approximately 273 acres. The northern portion of the site is currently occupied by an active dairy operation known as the Stueve Dairy. The animal population associated with the dairy operation generally ranges from 600 to 800 cows. Open lands on the remainder of the property contain several structures, including an unoccupied residence and a barn, several dirt access roads, irrigation pipelines, and a manmade pond located in the southeast corner containing dairy wastewater.

The soils onsite are mapped by the United States Department of Agriculture's (USDA's) Natural Resources Conservation Service. The Project site includes approximately 48.9 acres of Chualar clay loam (CkA), 166.9 acres of Chualar clay loam (CkC), 29.8 acres of Chualar clay loam (CkD), 26.9 acres of Grangeville fine sandy loam (Gr), and 0.5 acre of water (W, see Exhibit 4.2-1).

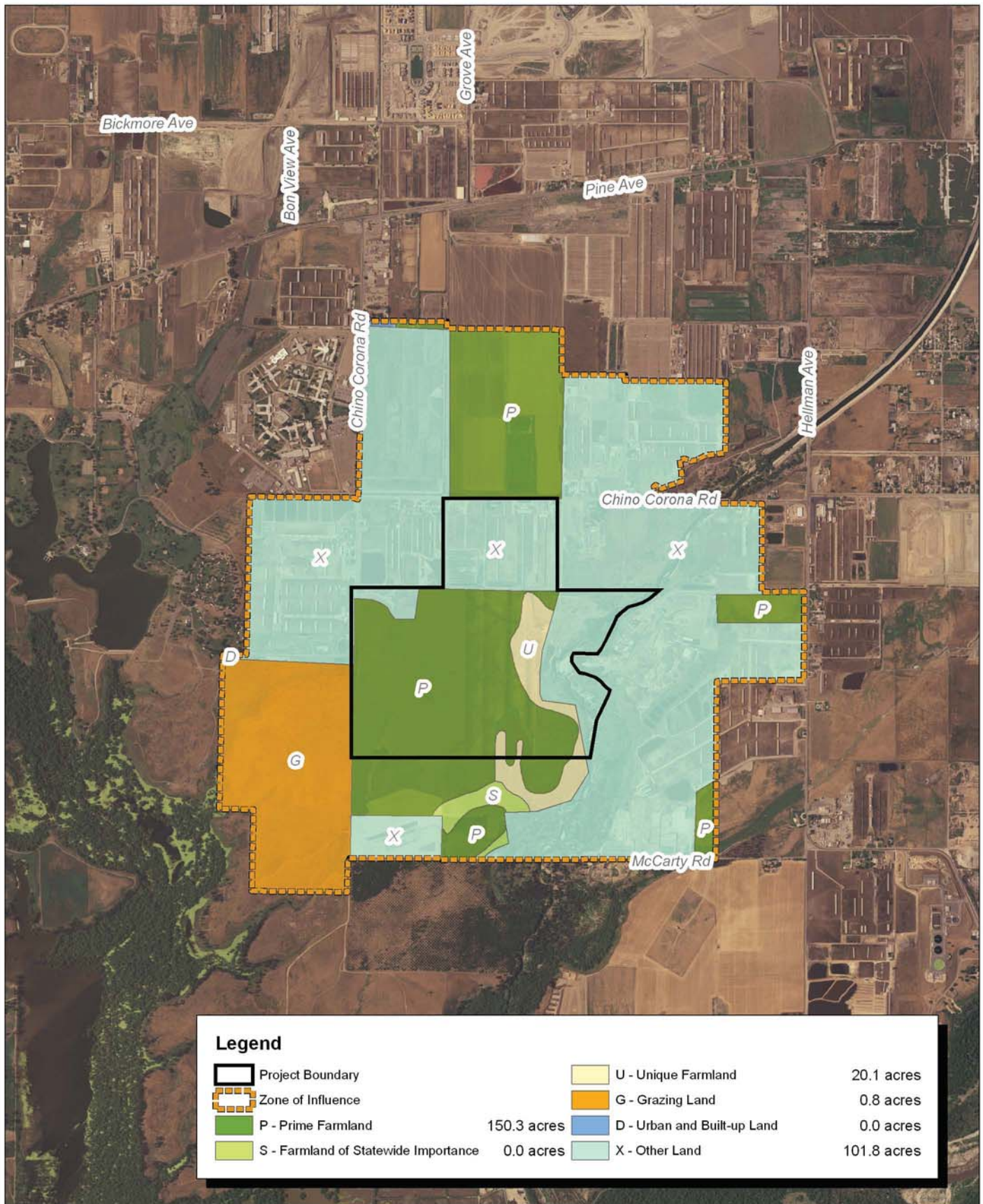
The Farming Mapping and Monitoring Program (FMMP) assigns land rankings for farmland and other land. Based on the FMMP data, and as illustrated in Exhibit 4.2-2, the Project site contains approximately 150.3 acres of Prime Farmland, 20.1 acres of Unique Farmland, 0.8 acres of Grazing Land, and 101.8 acres of other land. These classifications have specific legal meanings, and a description of the FMMP program is provided in Section 4.2.3, below. The FMMP categories are defined as follows:

- **Prime Farmland** is defined as farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time in the four years prior to the mapping date to qualify as Prime Farmland.
- **Unique Farmland** is defined as farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards. To qualify as Unique Farmland, the land must have been cultivated at some time in the four years prior to the mapping date.
- **Grazing Land** is defined as land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for grazing land is 40 acres. Due to variations in soil quality, smaller areas of Grazing Land may appear within larger pastures.
- **Other Land** is defined as land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than forty acres is mapped as Other Land.

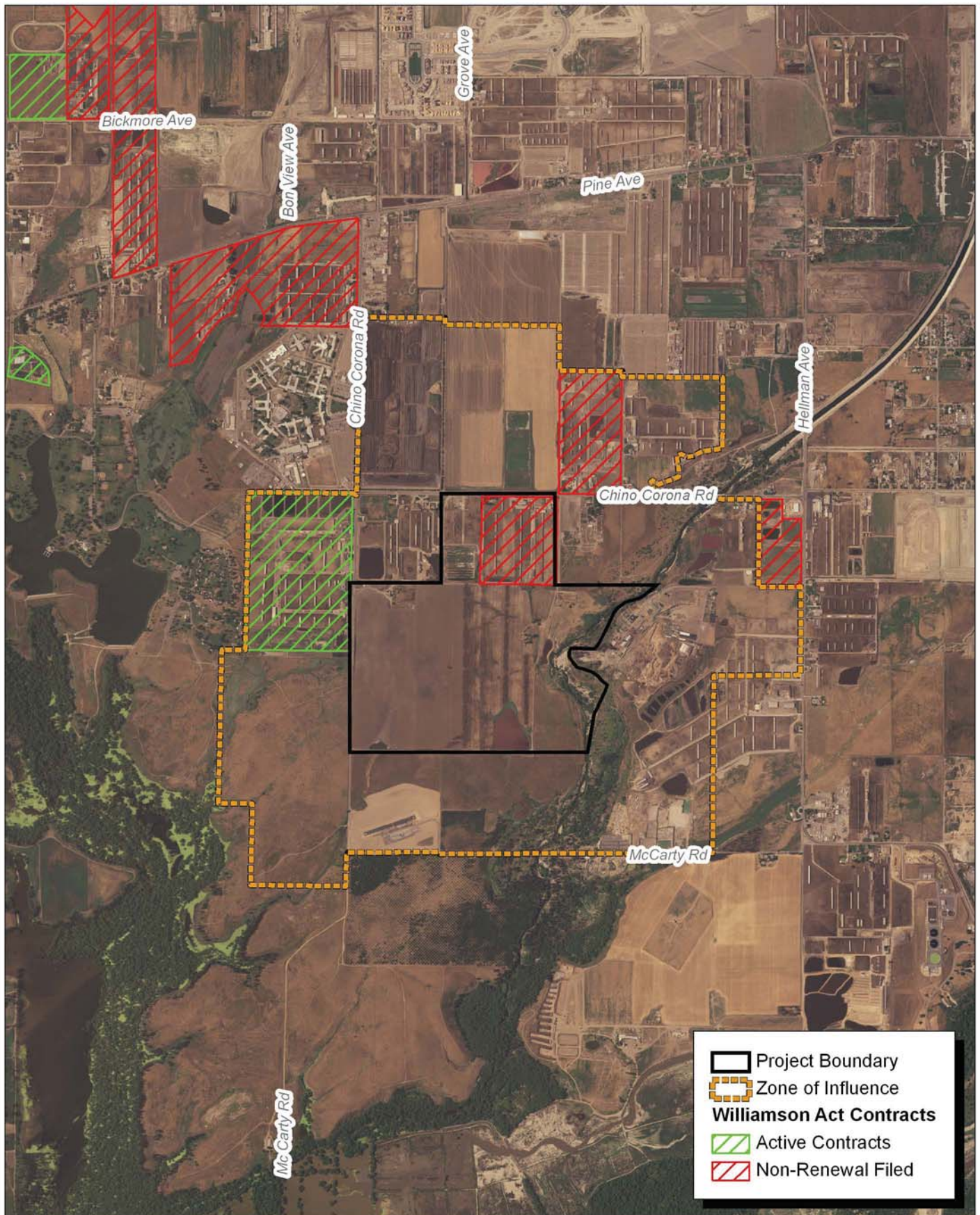
Approximately 36 acres of the Project site remain under Williamson Act Contract. The owner of this property, however, has filed a notice of intent not to renew the contract, and the contract is set to expire on December 31, 2015. Other Williamson Act lands in the Project vicinity are illustrated in Exhibit 4.2-3. Agriculture has been, and continues to be an important part of the region's history and economy. Dairy is the predominant agricultural use in the Project area, and San Bernardino County ranks number three in the United States in terms of value that dairy cow operations provides to a County's economy (USDA.2002 Census of Agriculture).



Source: Soil Survey of San Bernardino County, CA, Sothwestern Part (USDA, 1980).



Source: Ca. Dept of Conservation, FMMP (2006).



Source: City of Chino Williamson Act Map (May 20, 2008).

Exhibit 4.2-3 Williamson Act Contracts

Although dairies continue to be present and productive in the Project vicinity, rapid population growth in the region has resulted in intense development pressures in the City of Chino. A recent trend towards residential and other development has resulted in a reduction in dairy production and increase in costs associated with dairy and other agricultural uses. In general, the economic viability of agriculture in the Project vicinity and Southern California has decreased over the last several decades.

4.2.3 - Regulatory Setting

Farmland Mapping and Monitoring Program

The California Department of Conservation (CDC) established the Farming Mapping and Monitoring Program (FMMP) in 1982. The FMMP is a non-regulatory program that provides a consistent and impartial analysis of agricultural land use and land use changes throughout California. The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The program rates agricultural lands according to physical characteristics and other factors such as irrigation status. The best quality land is classified as Prime Farmland. Additional classifications include Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

The FMMP also inventories and maps a variety of other land use categories. For purposes of determining a project's significance under CEQA, only Prime Farmland, Unique Farmland, and Farmland of Statewide Importance are used to determine impacts. Conversion to non-agricultural uses of lands falling under any of these classifications is considered a significant impact under CEQA.

California Land Conservation Act (Williamson Act)

The Williamson Act was enacted in 1965 with the principal purpose of preserving agricultural and open space lands by discouraging "premature and unnecessary" conversion to urban uses. As of 2007, nearly 16.9 million acres of land statewide were protected under Williamson Act provisions.

The principal component of the Williamson Act is a process that allows private landowners to voluntarily contract with cities and counties to restrict land to agricultural and open-space uses. Landowners entering into such an arrangement agree to a 10-year contract that is automatically renewed unless either the contracting jurisdiction or the landowner chooses to opt-out at the end of the term. In return for restricting uses on their property, landowners are assessed at a significantly lower property tax rate than might be the case if their property were assessed at potential market value. This arrangement is especially important to agricultural landowners with properties adjacent to rapidly expanding urban areas. In these cases, properties under Williamson Act contract can be taxed at rates ranging from 20 to 75 percent below potential market value assessments. Contracting jurisdictions receive partial reimbursement for reduced property tax revenue from the State via the Open Space Subvention Act program, which is financed from California's General Fund.

A Williamson Act contract on a property obligates the property owner to a variety of restrictions. The minimum contract is 10 years, and remains enforceable even if the property changes ownership. Landowners may opt-out of their contract without penalty only at the end of the term. If the contract is not renewed at the end of the term, the property's assessment value reverts to its potential market value. Should the landowner desire to cancel the contract prior to the end of the term, the contracting jurisdiction must make specific findings that are supported by substantial evidence. The opportunity to alter the use of the subject property is not adequate evidence to support cancellation, nor are assertions of unsatisfactory economic return should the property retain its agricultural designation. Should the cancellation be approved, the landowner must pay a cancellation fee equal to 12.5 percent of the current fair market value of the property.

Landowners can be found in breach of contract if they do not comply with the terms of the agreement. Legislation passed in 2004 disallowed the construction of certain residential, commercial, and industrial structures not related to agricultural operations on contract properties. The law allows jurisdictions to impose penalties on nonconforming properties of up to 25 percent of fair market value.

City of Chino General Plan

The City of Chino General Plan provides goals, policies, and other forms of broad direction to guide management of the City. Goals and policies of the General Plan that are relevant to agricultural resources are found in the Conservation/Open Space Element, adopted in 1990, and are listed in Table 4.2-1. Section 4.9, Land Use and Planning, Table 4.2-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.2-1: Conservation/Open Space Element Goals and Policies Addressing Agricultural Resources

Reference	Description
Goal G5-1:	Agricultural Preservation- To preserve and protect land devoted to agricultural uses and to promote activities to help achieve self-sustainment.
Policy P5-1.1	Continued Agricultural Production - To encourage property owners with land under agricultural and crop production to continue agricultural operations.
Policy P5-1.3	Encourage Buffer Zones - To encourage the use of buffer zones that minimize conflicts between agricultural and non-agricultural uses.

Southern California Association of Governments Policies

The Southern California Association of Governments (SCAG) has adopted numerous policies that relate to agricultural resources. Two policies included in SCAG's Regional Comprehensive Plan's Growth Management Chapter (GMC) are relevant to agricultural resources, and are provided in Table 4.2-2. A complete analysis of Project consistency with SCAG goals and policies is contained in Section 4.9, Land Use and Planning of this Draft EIR.

Table 4.2-2: SCAG Policies Addressing Agricultural Resources

Reference	Description
GMC 3.07	Support Agriculture as an Industry -Support subregional policies that recognize agriculture as an industry, support the economic viability of agricultural activities, preserve agricultural land, and provide compensation for property owners holding lands in greenbelt areas.
GMC 9.07	Maintain Resource Production Lands -Maintain adequate viable resource production lands, particularly lands devoted to commercial agriculture and mining operations.

The Preserve Specific Plan and EIR

The Preserve Specific Plan designated properties below the 566' elevation, as mapped in The Preserve Specific Plan and EIR (2003), for agricultural and open space uses based on the 566' elevation representing the boundary of the Prado Dam Inundation Area that would be prone to occasional inundation (see Exhibit 3-7). The area at or below the 566' elevation comprised approximately 2,917 acres, or about 54 percent of The Preserve Specific Plan area. All but 3.65 acres within the Edgewater Project site were designated for some type of agricultural/open space use under The Preserve Specific Plan, including approximately 197 acres of the Project site that were designated as Agriculture and Open Space Natural (AG/OS-N).

Mitigation within The Preserve EIR contained several provisions intended to provide for the permanent preservation of the agricultural lands remaining in the agricultural (AG), AG/OS-N, and open space natural (OS-N) designated areas of the Specific Plan. Specifically, the provisions provided for City participation in preservation and planning programs established to preserve designated agricultural lands (see Section 5 of this Draft EIR for a complete listing of The Preserve EIR Mitigation Measures by issue area).

Despite adoption of the above mitigation, The Preserve EIR determined that implementation of the Specific Plan would impact agricultural resources by accelerating the conversion of prime agricultural land and prime farmland to urban uses. This was considered a significant impact at both the project and cumulative levels.

4.2.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to agricultural resources are significant environmental effects, the following questions are analyzed and evaluated. 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. Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

4.2.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. The Preserve Specific Plan designated 197.14 acres within the Project site for Agricultural and Open Space Natural (AG/OS-N). No acreage within the proposed Project is designated for agricultural use.

Convert Farmland to Non-Agricultural Uses

Impact 4.2-1:	The Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. [CEQA Agricultural Resources Threshold 2(a)]

State CEQA Guidelines allow Lead Agencies to utilize the California Agricultural Land Evaluation and Site Assessment (LESA) model, prepared by the California Department of Conservation (CDC) in 1997, as a method of assessing impacts on agriculture and farmland. Evaluation of the agricultural resource impacts associated with the Edgewater Project considers the LESA model results (contained in Appendix B) as well as other factors, which are presented below.

LESA Model

The LESA model has two components, a Land Evaluation (LE) and Site Assessment (SA), each with individual scoring thresholds that work together to calculate a final LESA score. The final LESA score is used to determine whether a project's impacts to agricultural resources are significant or not. A complete description of the LESA model and the process for calculating LESA scores is located in Appendix B of this Draft EIR in the Agricultural Resource Analysis.

Land Evaluation (LE) Rating

The types of soils on a site is one indicator of how valuable the site is as an agricultural resource and is thus a measure of the capacity of a parcel of land to produce agricultural products. Soils are rated using the Land Capability Classification (LCC) system developed by the CDC. A parcel with highly valued agricultural soils will rate higher in terms of land capability than a parcel with poorly valued agricultural soils. Soil ratings are based on the suitability of soils for growing crops. The rating system includes eight classes of land designations I through VIII, with soils designated I having the fewest limitations and VIII being the least suitable for cropland. Classes I through IV are generally

considered arable land suitable for cropland (though class IV have severe limitations on the choice of plants that can be grown), and V through VIII are generally not considered to be suitable for cropland, but may have uses for pasture, range, woodland, or grazing. The criteria used to determine a particular class is based on landscape location, slope of field, and depth, texture and reaction of the soil.

Subclasses designated with a lower case letter “e”, “w”, “s”, or “c”, are often used in conjunction with the roman numerals to further describe soil limitations. The letter “e” is used to show that the main limitation is erosion, “w” shows that water in or on the soil caused limitation in plant growth, “s” is used to show that the soil is shallow, droughty, or stony, and “c” shows that the limitation is a climate that is generally too cold or hot for many plants. Note that there are no subclasses in class I because class I is considered to have few limitations. Soil descriptions are further broken down to capability units that are shown with a number 0 through 9. These are related to the actual soil content (i.e., limitation caused by gravelly soil, erosive soils, flooded soil, slow permeability, salt or alkali soil, low fertility, or other issues that limit effective rooting depth). Soils and LCC ratings contained within the Project site are shown below in Table 4.2-3.

Table 4.2-3: Project Soils

Soil Map Unit	Acreage	LCC	LCC Rating ¹
Chualar clay loam (0-2% slopes) (CkA)	48.9 acres	I	100
Chualar clay loam (2-9% slopes) (CkC)	166.9 acres	II e-1	90
Chualar clay loam (9-15% slopes) (CkD)	29.8 acres	III e-1	70
Grangeville fine sandy loam (Gr)	26.9 acres	I	100
Water (W)	0.5	—	—
Notes: ¹ The LCC Rating is derived from data in the Soil Survey of San Bernardino County Southwestern Part (USDA 1980) and Table 2 of the LESA Model Instruction Manual. Source: Michael Brandman Associates, 2008.			

An overall LCC score is derived for the Project site by multiplying the LCC Rating by the proportion of the Project site covered by a particular soil. The Project received an overall LCC score of 90.4 (see Table 1A of the LESA Model Worksheets contained in Appendix B). This high score is based on the high quantity of LCC I and LCC II soils, which are considered prime agricultural soils.

Another soil rating is developed using the Storie Index, which is a numerical expression of the relative degree of suitability of a soil for general intensive farming. The Storie Index is based on a 100-point scale, and uses soil characteristics such as soil depth, texture of the surface soil, density of the subsoil, drainage, salts and alkali, and relief. As part of the LESA Model, the Storie Index is used to determine a Storie Index score (calculated by multiplying the Storie Index by the proportion of the Project site covered by a particular soil). The Project received a total Storie Index score of 73.90 (see

Table 1A of the LESA Model Worksheets contained in Appendix B). This high score is meant to reflect high suitability of the soils to be used for farming uses.

Site Assessment (SA) Rating

There are four Site Assessment factors in the LESA Model that are used to determine the overall impacts of converting the Project site to non-agricultural uses: 1) the project size rating; 2) water availability rating; 3) surrounding agricultural land; and 4) surrounding protected resource land.

The project size rating is a function of the quality of soils present onsite and the overall size of the site. This recognizes the role that farm size takes in the viability of agricultural uses. The project size score for the Edgewater site is 100 points (see Table 1B of the LESA Model Worksheets contained in Appendix B). This is due to the high quantity of LCC I and II soils.

The water availability rating is based upon identifying the various water sources that supply a given property. For the Project site, water is currently supplied to the Project site and water for irrigation is considered readily available. The Project site received a water resource score of 95 (see Worksheet 2 of the LESA Model Worksheets contained in Appendix B).

The surrounding agricultural land rating is based upon identifying the Project's "Zone of Influence," (ZOI) which is defined as that land near a given project that is likely to influence, and to be influenced by, the agricultural land use of the subject project site. The LESA model identifies specific criteria to be used in determining the ZOI. The total acreage of the Project's ZOI (excluding the Project site) is approximately 949 acres. Approximately 688.5 acres of the land in the ZOI is currently being used for agricultural uses. Accordingly, the percentage of land in the ZOI in agricultural production is 72.6% percent. This results in a score of 70 (see Worksheet 3 of the LESA Model Worksheets contained in Appendix B).

The surrounding protected resource land rating is scored in a similar manner as the surrounding agricultural land rating. "Protected Resource Lands" are those with long-term use restrictions that are compatible with or supportive of agricultural land uses and include the following: 1) Williamson Act contracted lands; 2) publicly owned lands maintained as park, forest, or watershed resources; and 3) lands with agricultural, wildlife habitat, open space or other natural resource easements that restrict the conversion of such lands to urban industrial uses.

Approximately 159 acres of the parcels within the Project's 949-acre ZOI are currently under Williamson Act contract (see Exhibit 4.2-3). However, this amount equals less than 40 percent of the overall ZOI and therefore receives a rating of zero as per the LESA Model. (See Worksheet 3 of the LESA Model Worksheets contained in Appendix B).

Final LESA Score

A single LESA score is generated for a given project after all of the individual Land Evaluation and Site Assessment factors have been scored and weighted. Scores are based on a scale of a maximum 100 points. The scores that determine if a project will result in a significant impact to agricultural resources are shown below in Table 4.2-4.

Table 4.2-4: California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39 points	Not considered significant
40 to 59 points	Considered significant only if LE and SA sub-scores are each greater than or equal to 20 points
60 to 79 points	Considered significant unless either LE or SA sub-scores are each less than to 20 points
80 to 100 points	Considered Significant
LE = Land Evaluation SA = Site Assessment Source: California Department of Conservation (CDC), 1997.	

The final LESA score for the proposed Project, according to the Worksheets contained in Appendix B, is 80.83. The proposed Project has a total project score between 80 and 100 points, and both the LE and SA sub-scores are greater than 20 points (the LE is 41.08 and the SA score is 39.75). When measured against the criteria presented in Table 4.2-4, the proposed Project has a total project score over 80 and is therefore considered significant under CEQA.

Conversion to Non-Agricultural Uses

As identified in Section 4.2.2, and illustrated in Exhibit 4.2-2, the Project site contains approximately 150.3 acres of Prime Farmland, 20.1 acres of Unique Farmland, 0.8 acres of Grazing Land, and 101.8 acres of other land. The development of the proposed Project will result in the conversion of 150.3 acres of Prime Farmland and 20.1 acres of Unique Farmland (total of 170.4 acres) to non-agricultural uses, which is considered a significant impact under CEQA.

Level of Significance Before Mitigation

Significant. [CEQA Agricultural Resources Threshold 2(a)]

Mitigation Measures

AG-1 Agricultural Land Preservation. The applicant shall mitigate the loss of 170.4 acres of agricultural lands, on a one-to-one basis, by selecting one or more of the items described below. The applicant shall submit written verification of the applicant's compliance with this mitigation measure to the Director of Community Development's satisfaction at the time of recordation of final tract maps and parcel maps for urban development or support facilities as contemplated in the proposed Project. Compliance with this condition may be phased as the Project is developed.

The amount of agricultural land to be mitigated shall be equal to the amount of land being developed as each phase is developed.

- a) **Funding and/or purchase of agricultural conservation easements.** Such easements shall be accepted or purchased and monitored and enforced by a land trust or another appropriate entity. Funds may be used for easement purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or
- b) **Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California.** Funds may be used for purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or
- c) **Purchase of credits.** Purchase of credits from an established agricultural farmland mitigation bank approved by an applicable governmental authority.

During the life of the Project, if the City of Chino or other responsible agency adopts an agricultural land mitigation program that provides equal or more effective mitigation than the measures listed above, the applicant may choose to participate in that alternate program to mitigate loss of agricultural land impacts. Prior to participation in the alternate program, the applicant shall obtain written approval from the City of Chino agreeing to the participation, and the applicant shall submit written verification of compliance with the alternate program at the same time.

Agricultural land used for mitigation shall be of at least equal agricultural classification as the land being converted, or be capable of being developed as such. Alternately stated, mitigation land shall be classified or developed as Prime Farmland, Unique Farmland, etc. (as established by the California Department of Conservation in the Farmland Mapping and Monitoring Program), the mitigation acreage being at least equivalent in classification to the converted land, or being capable of producing the same or equivalent crops as the land being converted.

Completion of the selected mitigation measure, or with the Director of Community Development's approval, a combination of the selected mitigation measures, can be on qualifying agricultural land within the Chino area, or outside the area with written evidence presented by a qualified professional that the same or equivalent crops can be produced on the mitigation land.

Level of Significance After Mitigation

Significant. [CEQA Agricultural Resources Threshold 2(a)]. The availability of lands that could qualify as meeting the Project mitigation measure AG-1 is unknown at this time. Until such time as

is known that the measure can be fully and successfully implemented, the impact of the Project in regards to this issue must be considered significant.

Conflict with Existing Zoning or Williamson Act Contract

Impact 4.2-2:	The Project would conflict with existing zoning for agricultural use and a Williamson Act Contract. [CEQA Agricultural Resources Threshold 2(b)]

Impact Analysis

Approximately 36 acres of the Project site remain under Williamson Contract. The owner of this property, however, has filed a notice of intent not to renew the contract, and the contract is set to expire on December 31, 2015. Regardless, the 36-acre parcel technically remains under contract, so the Project will conflict with an existing Williamson Act Contract.

Comments received during the Notice of Preparation comment period specifically asked the City to consider the Project within the context of the long-term land use vision established by the City of Chino Sphere of Influence, Subarea 2 process, of which The Preserve Specific Plan and the Project site are a part. Portions of the proposed Project are in conflict with the land use policies adopted as part of the Subarea 2 planning process. Mitigation Measure AG-1 of The Preserve EIR included the following provision: “The City of Chino will propose to participate in the Williamson Act Easement Exchange Program (WAEPP) and any plan that may be adopted pursuant to SB 831, for acquisition of agricultural easements or other conservation easements for the purpose of permanent agricultural land preservation within the Agricultural (AG), Agricultural/Open Space-Natural, and as appropriate subject to conditional use permit, the Open Space-Natural designated areas of the plan area.”

Approximately 197 acres of the 273-acre Project site are currently designated as Agricultural/Open Space Natural (AG/OS-N) under The Preserve Specific Plan. Therefore, conversion of these lands would conflict with existing zoning for agricultural use, and would also be in conflict with The Preserve Specific Plan’s intent to provide for the “permanent agricultural land preservation” of these lands.

The Project also conflicts with existing City of Chino and SCAG policies relating to agricultural resources, which are intended to encourage the continued viability of agricultural production within the City of Chino and the region as a whole. Therefore, the conversion of the Project site to non-agricultural uses would conflict with City and regional policies.

Level of Significance Before Mitigation

Significant. [CEQA Agricultural Resources Threshold 2(b)]

Mitigation Measures

No feasible mitigation to sufficiently address the proposed Project’s identified conflicts with adopted City and regional policies related to agricultural resources.

Level of Significance After Mitigation

Significant. [CEQA Agricultural Resources Threshold 2(b)]

Other Changes Resulting in Farmland Conversion to Non-Agricultural Use

Impact 4.2-3:	The Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.
	[CEQA Agricultural Resources Threshold 2(c)]

Impact Analysis

The Project site is currently occupied by an active dairy operation known as the Stueve Dairy (with a cow population generally ranging from 600-800 cows), and open land. The dairy portion of the site consists of several residences, barns, associated structures, and waste discharge ponds. Cattle holding pens make up the majority of the dairy area. The portion of the site comprised of open land has several structures, including a residence and a barn, several dirt access roads, irrigation pipelines, and a manmade pond located in the southeast corner containing dairy wastewater. The development of the proposed Project will result in the conversion of 150.3 acres of Prime Farmland and 20.1 acres of Unique Farmland totaling 170.4 acres to non-agricultural uses.

In addition to direct impacts on agricultural uses within the Project site, the Project could result in changes in the existing environment that could have an effect on adjacent agricultural lands. Residential and other types of development near existing agricultural operations can encroach upon the operating efficiency of remaining agricultural properties.

A review of surrounding land uses (see Section 3.1.3 of this Draft EIR) indicates that historic agricultural uses on adjacent lands have, for the most part, already been converted or are planned for conversion to non-agricultural uses; the exception being the dairies to the east and west.

The Project vicinity is influenced by agriculture, but most of the surrounding area has already been converted to non-agricultural uses. Development of the proposed Project would directly convert agricultural land to non-agricultural uses, but it is not expected to have a significant indirect impact on surrounding lands.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No further mitigation required. Mitigation measure AG-1 addresses impacts on agricultural resources.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.2-4:	When considered on a regional or cumulative basis, the Project would have an impact on the conversion of significant agricultural lands to non-agricultural uses.

Impact Analysis

The proposed Project will contribute to significant cumulative losses of prime farmlands and other important farmlands within the region. The Preserve EIR determined in 2003 that planned non-agricultural developments within the area then referred to as the Chino Basin Dairy Area had the potential to remove more than 23,000 acres of agricultural lands from production. The Preserve Specific Plan proposed to retain approximately 862 acres of lands under agricultural land use designations, but the proposed Project intends to remove an additional 197 acres of that area from agricultural status. Therefore, the proposed Project will contribute to the continued and cumulative loss of agricultural productivity within the region.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

Mitigation measure AG-1 addresses impacts on agricultural resources, but does not completely mitigate the Project's cumulatively significant impact on agricultural resources.

Level of Significance After Mitigation

Significant.

4.2.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for the Edgewater Communities Project are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.2-5 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.2-5: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Agricultural Resources

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
AG-1. Agricultural Land Preservation. Requires Applicant to mitigate for loss of 170.4 acres of Prime and Unique Farmland through one or more of the following methods: 1) Funding and/or purchase of agricultural conservation easements; 2) Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California; and/or 3) Purchase of credits.	AG-1. Agricultural Land Preservation.	No conflict between The Preserve EIR and Project mitigation. Edgewater mitigation seeks to offset the Project's conversion of agricultural lands to non-agricultural uses.
The Preserve mitigation measure AG-2 not applicable at the Project level.	AG-2. Agency Coordination and Planning for Agricultural Uses.	The Preserve mitigation measure AG-2 not applicable at the Project level, but Project implementation would not create a conflict between The Preserve EIR and Project mitigation.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.3 - Air Quality

4.3.1 - Introduction

This section describes the existing air quality setting and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Air Quality Analysis Report prepared by Michael Brandman Associates (2008), included in this Draft EIR as Appendix C.

There were two comment letters regarding air quality submitted during the Notice of Preparation comment period. The SCAQMD recommended that the following be included in the air quality analysis:

- Use of the 1993 CEQA Air Quality Handbook in the preparation of the analysis;
- Estimation of both construction and operational impacts;
- Estimation of PM_{2.5} emissions;
- Use of the Localized Significance Thresholds (LSTs);
- Preparation of a Health Risk Assessment if the Project attracts heavy-duty diesel vehicles; and
- Implement all feasible mitigation measures beyond what is required by law to minimize or eliminate significant adverse air quality impacts.

The following analysis incorporates all of the SCAQMD suggestions, except for the preparation of a Health Risk Assessment. This is because the proposed Project does not involve the development of uses that would generate or attract toxic air contaminants.

The Southern California Association of Governments (SCAG) also commented on the proposed Project and listed two actions from the Air Quality Chapter related to the proposed Project. Action 5.07 is to “determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community-based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulation can be assessed.” Action 5.11 is to “...ensure that plans at all levels of government...consider air quality, land use, transportation, and economic relationships to ensure consistency and minimize conflicts.”

4.3.2 - Existing Conditions

The proposed Project is located in the City of Chino in the County of San Bernardino, and within the South Coast Air Basin (basin). Regional and local air quality is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day. The quality of the air can be assessed by measuring the concentrations of certain air pollutants over time. The higher the concentration, the more effects may be observed. Air pollutants have different properties, health

effects, and sources. The following is a brief summary of the pollutants of concern. A more detailed description is contained in the Air Quality Analysis Report (Appendix C).

- **Carbon monoxide (CO):** A colorless, odorless toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline or diesel fuel).
- **Ozone:** A photochemical oxidant that is formed when reactive organic gases and oxides of nitrogen (both byproducts of internal combustion engines) react in the presence of ultraviolet sunlight. Ozone is an energetic combination of three oxygen atoms that, when it comes into contact with a surface, releases its force as chemical energy. When this happens to biological systems (i.e., the respiratory tract and plants), this energy can cause damage to sensitive tissues.
- **Oxides of nitrogen (NO_x):** NO_x is a mixture of nitric oxide and nitrogen dioxide in the atmosphere. Nitric oxide is formed as a byproduct of fuel combustion and quickly reacts with oxygen to form nitrogen dioxide. NO_x emissions contribute to the formation of ozone and particulate matter. Nitrogen dioxide is the only form of NO_x that exists at a level sufficient to cause public health concerns.
- **Sulfur dioxide and sulfates:** In California, sulfur is emitted during the combustion of petroleum-derived fuels (i.e., gasoline and diesel fuel) that contain sulfur. During combustion, sulfur is oxidized to sulfur dioxide (a colorless pungent gas). The sulfur dioxide is then converted to sulfate compounds in the atmosphere.
- **Lead:** Lead is a heavy metal that can accumulate in bone, soft tissue, and blood; can damage the kidneys, liver, and nervous system; and can result in learning disabilities, seizures, and death. Lead concentrations once exceeded the state and national air quality standards by a wide margin, but have not exceeded state or national air quality standards in the area for at least 10 years. Lead is no longer an additive in gasoline, which is the main reason the concentration of lead in the air is low.
- **Suspended particulate matter (PM₁₀ and PM_{2.5}):** Particulate matter is a mixture of small particles that consists of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM₁₀ refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter). PM_{2.5} refers to particulate matter that is 2.5 microns or less in diameter. Sources include road dust, diesel exhaust, erosion of soil, combustion particles (ashes and soot), and tire and brake abrasion.
- **Volatile organic compounds (VOCs):** VOCs are organic compounds that readily evaporate. Reactive organic gases (ROGs) consist of non-methane and oxygenated hydrocarbons. Although all VOCs are not necessarily ROGs, the terms are often interchanged. There are no state or national ambient air quality standards for VOCs; however, they are regulated because they are involved in chemical reactions that contribute to the formation of ozone. In addition,

some hydrocarbon components classified as VOCs (i.e., benzene) are thought or known to be hazardous. Sources of VOCs include adhesives, solvents, paints, cooking, fuel, and combustion. VOCs can interfere with oxygen uptake and can cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis.

- **Diesel particulate matter (DPM):** Diesel exhaust is a mixture of many particles and gases that is produced when an engine burns diesel fuel. Many compounds found in diesel exhaust are carcinogenic. DPM includes the particles in diesel exhaust. Some of the health effects of DPM include eye, nose, and throat irritation as well as cough, nausea, and phlegm.
- **Visibility reducing particles** are suspended particulate matter. Visibility is the distance through the air that an object can be seen without the use of instrumental assistance. Visibility reducing particles are not assessed in this analysis; however, particulate matter is assessed.
- **Vinyl chloride** is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride is a known carcinogen. The 24-hour state standard for vinyl chloride is 0.01 ppm. The proposed Project is not expected to generate or be exposed to vinyl chloride because proposed Project uses do not utilize the chemical processes that create this pollutant. Therefore, it is not assessed in this analysis.
- **Hydrogen sulfide** is a flammable, colorless, poisonous gas that smells like rotten eggs. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. The 1-hour state standard for hydrogen sulfide is 0.03 ppm. Sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent. The proposed Project is not expected to cause exposure to hydrogen sulfide because it will not generate hydrogen sulfide in any substantial quantity. Therefore, hydrogen sulfide is not assessed in this analysis.

4.3.3 - Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of responsibility. The United States Environmental Protection Agency (U.S. EPA) regulates at the national level. The California Air Resources Board (CARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

The U.S. EPA handles global, international, national, and interstate air pollution issues and policies. The U.S. EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans (SIP), provides research and guidance in air pollution programs, and sets national Ambient Air Quality Standards (AAQS), also known as federal standards. There are NAAQS for six common air pollutants, called criteria air pollutants, which were identified resulting from provisions of the Clean Air Act of 1970. The six criteria pollutants are ozone, particulate matter

(PM₁₀ and PM_{2.5}), nitrogen dioxide, carbon monoxide (CO), lead, and sulfur dioxide. The national AAQS were set to protect the health of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants.

CARB has overall responsibility for statewide air quality maintenance and air pollution prevention. The SIP for the State of California is administered by CARB. A SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national AAQS. CARB also administers California AAQS, or state standards, for the ten air pollutants designated in the California Clean Air Act. The ten state air pollutants are visibility reducing particulates, hydrogen sulfide, sulfates, vinyl chloride, and the six criteria pollutants.

The air pollution control agency for the basin is the SCAQMD. SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with SCAG, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared by an air pollution control district for a county or region designated as a nonattainment area for bringing the area into compliance with the requirements of the national and/or California ambient air quality standards. (Air basins where ambient air quality standards are exceeded are referred to as “nonattainment” areas.)

The current AQMP for the Basin is the 2007 AQMP, which was adopted by the SCAQMD on June 1, 2007. On July 13, 2007, the SCAQMD Board adopted 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to CARB for its approval and subsequent submittal to the U.S. EPA. On September 27, 2007, CARB adopted the State Strategy for the 2007 State Implementation Plan (SIP) and the 2007 AQMP as part of the SIP.

The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. The 2007 AQMP outlines a detailed strategy for meeting the federal health-based standards for PM_{2.5} by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. Most of the reductions will be from mobile sources, which is currently responsible for about 75 percent of all smog and particulate forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood-burning fireplaces and restaurant charbroilers.

Ambient Air Quality Standards

The national and state AAQS are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. The health effects of a pollutant are a function of the dose of the pollutant, the length of exposure, the pollutant’s properties, and the body’s ability to

excrete the pollutant. Table 4.3-1 identifies the current state and national standards, as well as the relevant effects.

Table 4.3-1: Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects
Ozone	1 Hour	0.09 ppm	—	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; (f) Property damage.
	8 Hour	0.070 ppm	0.08 ppm	
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain or discomfort) and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses.
	8 Hour	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm*	—	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration.
	Mean	0.030 ppm*	0.053 ppm	
Sulfur Dioxide (SO ₂)	1 Hour	0.25 ppm	—	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	24 Hour	0.04 ppm	0.14 ppm	
	Mean	—	0.030 ppm	
Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	150 µg/m ³	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in the elderly.
	Mean	20 µg/m ³	—	
Particulate Matter (PM _{2.5})	24 Hour	—	35 µg/m ³	
	Mean	12 µg/m ³	15 µg/m ³	
Sulfates	24 Hour	25 µg/m ³	—	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage.
Lead	30-day	1.5 µg/m ³	—	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
	Quarter	—	1.5 µg/m ³	

Table 4.3-1 (Cont.): Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects
Notes: ppm = parts per million (concentration) $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter Mean = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter * The nitrogen dioxide ambient air quality standard was amended on February 22, 2007 and becomes effective on March 28, 2008. Source: MBA 2008.				

Local Air Quality

Ozone, PM_{10} , and $\text{PM}_{2.5}$ AAQS are often exceeded in the Project area (measured at Ontario and Pomona), which means that levels of these pollutants are high enough to evoke negative health effects in sensitive individuals.

The ozone 1-hour state AAQS averaged 30 exceedances per year between the period 2004 to 2006. The 8-hour ozone national AAQS averaged 13 exceedances between 2004 and 2006. The PM_{10} state 24-hour AAQS was exceeded an average of 15 times during the three years. The PM_{10} annual mean in the past three years averaged $42 \mu\text{g}/\text{m}^3$, which is more than double the state AAQS of $20 \mu\text{g}/\text{m}^3$. The $\text{PM}_{2.5}$ national AAQS was exceeded an average of once per year. The $\text{PM}_{2.5}$ annual mean in the last three years averaged $20 \mu\text{g}/\text{m}^3$, which is over the state and national AAQS.

Attainment Status

Air basins where ambient air quality standards are exceeded are designated as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” The basin is designated as nonattainment for the state and national PM_{10} and $\text{PM}_{2.5}$, standards. The basin is in nonattainment for the state ozone 1-hour standard. The basin is also in nonattainment for the national 8-hour ozone standard.

City of Chino General Plan

The City of Chino General Plan Air Quality Element has multiple goals and policies to reduce air pollutants within the City. Table 4.3-2 contains the goals and policies and indicates whether or not the Project is consistent with the applicable goals and policies.

Table 4.3-2: Air Quality Element Policies Addressing Air Quality

Goal or Policy	Policy Description	Project Consistency with Policy
Goal G8-1	Air Quality Improvements - To achieve coordination of air quality improvement within the portion of the South Coast Basin in San Bernardino County and improved air quality through reductions in pollutants from Orange, Riverside, and Los Angeles Counties.	Not applicable.
Policy P8-1.1	Establish a Coordinated Approach - Coordinate with other jurisdictions in San Bernardino County to establish parallel air quality plans and implementation programs.	Not applicable. The Project does not involve the preparation of an air quality plan.
Policy P8-1.2	Integrate with Related Programs - Cooperate in establishing a process to integrate air quality programs, implementation, monitoring, and reporting which will affect air quality improvements in San Bernardino County.	Not applicable.
Policy P8-1.3	Affect Source Jurisdictions - Cooperate actively with Los Angeles, Orange, and Riverside counties to comprehensively improve air quality at the emission source.	Not applicable.
Policy P8-1.4	Encourage Community Participation - Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs which effectively reduce air borne pollutants.	Not applicable.
Policy P8-1.5	Support innovative Approaches - Advocate and support innovative strategies to improve air quality.	Not applicable.
Goal G8-2	Ground Transportation - To achieve a diverse and efficient ground transportation system which generates the minimum feasible pollutants.	Consistent. The Project contains a network of streets, pedestrian paths, and bike lanes. The Project has main roads to collect the traffic and funnel it efficiently to the Project exits.
Policy P8-2.1	Eliminate Unnecessary Trips - Use market incentives, regulations, and Transportation Demand Management in cooperation with other jurisdictions in the South Coast Air Basin to eliminate unnecessary vehicles trips which would otherwise be made.	Not applicable. The Project cannot use incentives to reduce trips.
Policy P8-2.2	Reduce Vehicle Miles Traveled - Use incentives, regulations, and Transportation Demand Management in cooperation with other jurisdictions in the South Coast Air Basin to reduce the vehicle miles traveled for auto trips which still need to be made.	Not applicable. The Project cannot use incentives to reduce vehicle miles traveled.

Table 4.3-2 (Cont.): Air Quality Element Policies Addressing Air Quality

Goal or Policy	Policy Description	Project Consistency with Policy
Policy P8-2.3	Improve Traffic Flow - Improve traffic flow by implementing the state mandated Congestion Management Program (CMP), the AQMP, and other means to lessen roadway congestion.	Not applicable.
Policy P8-2.4	Establish Fees - Encourage market based incentives and disincentives to relieve peak hour/peak congestion within highly congested travel corridors in and adjacent to the City of Chino.	Consistent. As discussed in Section 4.15, Transportation and Traffic, the Project applicant would pay fair share fees.
Policy P8-2.5	Expand Transit - Cooperate in efforts to expand bus, rail, and other forms of transit in the portion of the South Coast Air Basin within San Bernardino County and the inter-county links to Los Angeles, Orange and Riverside counties.	Not applicable. The creation of alternative transit is not a Project objective.
Policy P8-2.6	Promote Non-Motorized Transportation - Provide bicycle and pedestrian pathways and facilities to encourage non-motorized trips.	Consistent. The Project incorporates bicycle and pedestrian pathways.
Policy P8-2.7	Manage Parking Supply - Manage the parking supply for public and private development to discourage auto use, while ensuring that economic development goals are not impacted.	Not applicable.
Policy P8-2.8	Encourage Market Incentives/Disincentives - Promote a regional approach to increasing parking costs in order to discourage low vehicle occupancy.	Not applicable. The Project consists of primarily residential uses; parking costs would not reduce trips.
Policy P8-2.9	Support Legislation - Lobby for state and federal legislation which would improve vehicle/transportation technology and establish differential pricing mechanisms to assess the true cost of emissions.	Not applicable.
Policy P8-2.10	Institute Clean Fuel Systems - Invest in clean fuel systems on all non-electric fleet vehicles.	Not applicable.
Goal G8-3	General Aviation Emissions - To encourage the minimum feasible emissions from Chino Airport.	Not applicable.
Policy P8-3.1	Promote Improved Technology - Support the South Coast Air Quality Management District in promoting the best available technology to reduce emissions in aircraft fleet and ground service vehicles.	Not applicable.
Policy P8-3.2	Coordinate Airport Development - Coordinate airport development to minimize pollutant emission from ground and air transportations systems.	Not applicable.

Table 4.3-2 (Cont.): Air Quality Element Policies Addressing Air Quality

Goal or Policy	Policy Description	Project Consistency with Policy
Goal G8-4	Efficient Land Use Pattern - To achieve a pattern of land uses which can be efficiently served by a diversified transportation system and development projects which directly and indirectly generate the minimum feasible air pollutants.	Not consistent. It would not be efficient for the Project to be served by a bus or train system because the overall density is not great enough.
Policy P8-4.1	Manage Growth - Continue to ensure that the fundamental City documents, including the General Plan, achieve a community which is efficiently balanced in terms of jobs/housing and which adequately prepares for management of growth.	Not in conflict. Project will provide 1,074 residential units (at average density of 3.94 dus/acre) and some jobs associated with church/school and museum/retail uses.
Policy P8-4.2	Jobs/Housing Balance - Create and execute programs which control and manage the balance between jobs and housing.	Not in conflict. Project will provide 1,074 residential units (at average density of 3.94 dus/acre) and some jobs associated with church/school and museum/retail uses.
Policy P8-4.3	Protect Sensitive Receptors - Protect sensitive receptors (schools, parks, hospitals) by supporting a regional approach to regulating the location and design of land uses which are especially sensitive to air pollution.	Consistent. The Project is not locating sensitive receptors by dangerous stationary source air pollutants. The Project is being located by odorous compounds, which although odors are unpleasant, they are not at a toxic concentration based on the practice of dairy farmers living onsite at dairies.
Goal G8-5	Reduce Particulate Emissions - Reduce to a minimum particulate emissions from such uses as construction, operation of roads, and buildings.	Consistent. The Project is implementing best available control measures to reduce particulate matter emissions.
Policy P8-5.1	Control Dust - Reduce particulate emissions from roads, parking lots, construction sites and agricultural lands.	Consistent. The Project is implementing best available control measures to reduce particulate matter emissions.
Policy P8-5.2	Reduce Emissions from Building Materials and Methods of Construction - Reduce emissions from building materials and methods of construction which generate excessive pollutants.	Consistent. Mitigation measures contained in this Draft EIR reduce daily emissions from construction methods.
Policy P8-5.3	Reduce Emissions from Building Interiors - To reduce interior air pollutants which produce poor air quality within building interiors.	Consistent. The Project consists of primarily residential units, which typically can have good ventilation compared with high density commercial buildings.

Table 4.3-2 (Cont.): Air Quality Element Policies Addressing Air Quality

Goal or Policy	Policy Description	Project Consistency with Policy
Goal G8-6	Reduce Energy Consumption - To reduce emissions through reduced energy consumption.	Consistent. As discussed in the Climate Change section, the Project is implementing measures to reduce energy consumption.
Policy P8-6.1	Energy Conservation - Reduce energy consumption through energy conservation improvements and requirements.	Consistent. As discussed in the Climate Change section, the Project is implementing measures to reduce energy consumption.
Policy P8-6.2	Limit Water Heater Emissions - To reduce emissions resulting from swimming pool water heaters and residential and commercial water heaters.	Consistent. Refer to Climate Change section.
Policy P8-6.3	Recycle Wastes - Promote local recycling of wastes and use of recycled materials.	Consistent. As discussed in the Climate Change section, the Project will recycle during construction and will encourage recycling during operation.

The Preserve Specific Plan and EIR

The Preserve Specific Plan Final EIR indicated that The Preserve would result in the following significant impacts. During construction, The Preserve:

will create temporary emissions of fugitive dust from soil disturbance, and combustion emissions from on-site construction equipment and from off-site trucks moving dirt, delivering construction materials, and from worker travel. A significant source of air pollution from project construction will be the dust generated during clearing, excavation and site preparation. NO_x emissions are likely to exceed the SCAQMD significance threshold. However, the mobile nature of the on-site construction equipment and off-site trucks will minimize any localized violations of the NO_x or other standards. With mitigation to keep equipment in good tune (low-NO_x tune-ups), average daily construction equipment emissions can be reduced, but not to less than significant levels during maximum grading activity days.

During operation, The Preserve Final EIR concluded that The Preserve would create significant increases in CO and NO_x levels. The Preserve also concluded that odor impacts from nearby dairies would have a significant impact on the future residents in The Preserve.

4.3.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to air quality are significant environmental effects, the following questions are analyzed and evaluated:

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.

Would the project:

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

4.3.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate.

The Preserve Specific Plan recommended the following uses for the Project site: Estate Residential (ER), Open Space Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N) and Open Space Natural (OS-N). Amending the Specific Plan as proposed by the proposed Project would contribute to the generation of additional air pollutants during construction and long-term operation.

Construction Related Impacts

Impact 4.3-1:	The Project would exceed the SCAQMD significance thresholds during the construction phase of the Project. [CEQA Air Quality Threshold 3(b)]

Impact Analysis

Construction of the proposed Project would result in air emissions from the construction equipment exhaust, worker vehicles, fugitive dust, and on-road truck travel. A summary of the emissions estimated in the Air Quality Analysis Report (Appendix C) using URBEMIS2007 is shown in Table 4.3-3. Sources of emissions shown in this table include those generated from onsite construction activities as well as those generated from off-site activities such as worker and delivery trips. As shown in the table, without mitigation, emissions of NO_x, PM₁₀, and PM_{2.5} would exceed the SCAQMD regional significance thresholds.

Table 4.3-3: Construction Emissions (Unmitigated)

	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	6.4	56.3	31.8	0.0	9.0	3.8
Mass grading	24.7	226.1	111.3	0.1	2729.8	577.7
Phase I construction	50.3	98.7	187.2	0.2	206.9	47.6
Phase II construction	43.7	78.7	147.9	0.2	105.7	25.7
Phase III construction	20.6	51.0	95.5	0.1	103.5	23.9
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	Yes	No	No	Yes	Yes
VOC = volatile organic compounds NO _x = nitrous oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

An analysis was also completed to evaluate the Project's conformance with the SCAQMD's localized significance thresholds (LSTs). LSTs were developed in response to the SCAQMD Governing Board's environmental justice initiatives in recognition of the fact that criteria pollutants such as CO, NO_x, and PM₁₀ and PM_{2.5} in particular, can have local impacts as well as regional impacts. LSTs represent the maximum emissions or air impact concentrations from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at any nearby sensitive or worker receptor. The LST assessment for this Project applied an air dispersion model along with construction emissions generated from onsite construction activities. The construction activities analyzed were those associated with grading activities since the largest amount of onsite construction emissions is associated with grading. The onsite grading emissions were derived from the URBEMIS2007 model run results (Appendix C).

Table 4.3-4 summarizes the results of the LST assessment assuming no implementation of emissions mitigation. The "West Receptor" refers to an agricultural residence located on Chino Corona Road approximately 50 meters west of the Project. The "East Receptor" refers to residences located approximately 100 meters east of the Project site on Chino Corona Road.

Table 4.3-4: Localized Significance Analysis (Construction)

Location	24-hour PM ₁₀ (µg/m ³)	24-hour PM _{2.5} (µg/m ³)	1-hour NO ₂ (ppm)	1-hour CO (ppm)	8-hour CO (ppm)
East Receptor	10.6	3.2	0.02	0.3	0.1
West Receptor	98.5	21.7	0.02	0.3	0.1
Localized Significance Threshold	10.4	10.4	0.074	16.0	5.86

Table 4.3-4 (Cont.): Localized Significance Analysis (Construction)

Location	24-hour PM ₁₀ (µg/m ³)	24-hour PM _{2.5} (µg/m ³)	1-hour NO ₂ (ppm)	1-hour CO (ppm)	8-hour CO (ppm)
Exceed Localized Threshold?	Yes	Yes	No	No	No
Source: ISC3 model output and spreadsheets contained in Appendix C.					

The results shown in the above table indicate that during grading, the SCAQMD's construction LSTs would be exceeded at the east and west receptors for PM₁₀ and the west receptor for PM_{2.5}.

The Preserve Specific Plan and EIR

The Preserve EIR indicated that PM₁₀ and NO_x emissions were significant during construction. The Project analysis identifies more impacts during construction than The Preserve Specific Plan. Specifically, the Project identifies a regional PM_{2.5} impact as well as a localized impact for PM₁₀ and PM_{2.5}.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(b)]

Mitigation Measures

AQ-1 Prior to construction of the Project, the Project proponent shall provide a Fugitive Dust Control Plan that would describe the application of standard best management practices to control dust during grading and construction. The plan shall be consistent with the South Coast Air Quality Management District (SCAQMD) requirements. The Fugitive Dust Control Plan shall be submitted to the City of Chino and SCAQMD prior to the start of grading or construction. Best management practices to be included in the Plan shall include the following:

- Application of water on disturbed soils a minimum of two times per day;
- Covering haul vehicles;
- Replanting disturbed areas as soon as practical;
- Restricting vehicle speeds on unpaved roads to 15 miles per hour;
- Installing wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip;
- Sweeping off site streets if silt is carried over to adjacent public thoroughfares;
- Suspend grading operations when instantaneous wind gust speeds exceed 25 miles per hour;
- Ensure that all trucks hauling dirt, sand, soil, or other loose materials are covered or maintain at least two feet of freeboard (i.e., minimum vertical

distance between top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114;

- Cessation of grading operations during first and second stage smog alerts; and
- Other measures, as deemed appropriate to the site, to control fugitive dust.

- AQ-2** During Project construction, construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines. Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction.
- AQ-3** During Project construction, the developer shall require all contractors to turn off all construction equipment when not in use.
- AQ-4** Prior to Project construction, the Project proponent shall provide a traffic control plan that would describe in detail safe detours around the Project construction site and provide temporary traffic control (i.e., flag person) during demolition debris transport and other construction related truck hauling activities.
- AQ-5** During mass grading activities, off-road construction vehicles shall: 1) be Tier II equipment; 2) be Tier III equipment; 3) utilize lean NO_x catalysts; and/or 4) utilize oxidized-diesel catalysts.
- AQ-6** During Project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.
- AQ-7** During Project construction, asphalt paving shall not take place on the same day as other activities involving off-road construction equipment.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(b)]

As shown in Table 4.3-5, emissions of NO_x, PM₁₀, and PM_{2.5} still exceed the regional significance thresholds.

Table 4.3-5: Construction Emissions (Mitigated)

	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	6.4	56.3	31.8	0.0	9.0	3.8
Mass grading	24.7	173.5	111.3	0.1	552.6	123.0
Phase I construction	50.3	98.7	187.2	0.2	47.8	14.4
Phase II construction	43.7	78.7	147.9	0.2	62.2	16.6
Phase III construction	20.6	51.0	95.5	0.1	60.0	14.8
Significance Threshold	75	100	550	150	150	55
Significant Impact?	No	Yes	No	No	Yes	Yes
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

Additionally, concentrations at the west receptor during grading still exceed the SCAQMD's LSTs after application of mitigation measures. Therefore, localized impacts are significant.

Table 4.3-6: Localized Construction Emissions (Mitigated)

Location	24-hour PM ₁₀ (µg/m ³)	24-hour PM _{2.5} (µg/m ³)	1-hour NO ₂ (ppm)	1-hour CO (ppm)	8-hour CO (ppm)
East Receptor	3.2	1.6	0.01	0.3	0.1
West Receptor	20.9	5.5	0.01	0.3	0.1
Localized Significance Threshold	10.4	10.4	0.074	16.0	5.86
Exceed Localized Threshold?	Yes	No	No	No	No
Source: MBA 2008.					

Operation Related Impacts

Impact 4.3-2: The Project could exceed the SCAQMD regional significance thresholds during operation.
[CEQA Air Quality Threshold 3(b)]

Impact Analysis

An active dairy is currently located within the Project site. The operational air emissions associated with the dairy are subtracted from the proposed Project's operational emissions to result in the net increase in operational emissions. It is subtracted from operational emissions because the dairy emissions generally occur all year. Sporadic construction projects potentially associated with the

dairy are not included in this analysis to provide a worst-case scenario. The emissions associated with the existing dairy are shown in Table 4.3-7.

Table 4.3-7: Existing Dairy Emissions

Source	Existing Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Equipment exhaust and fugitive dust	1.5	14.6	6.9	0.0	11.5	2.8
Landscape, natural gas	0.1	0.0	1.6	0.0	0.0	0.0
On-road vehicle exhaust (summer)	0.4	1.4	4.4	0.0	0.7	0.2
Cow- related (i.e., manure decomposition and cattle movement)	27.3	-	-	-	2.4	0.6
Total Existing Emissions	29.3	16.0	12.9	0.0	14.6	3.6
Source: MBA 2008.						

Operational, or long-term, emissions occur over the life of the Project. Operational emissions include mobile and area source emissions. Area source emissions are from consumer products, natural gas usage, gasoline-powered landscape equipment, fireplaces, and architectural coatings (painting). Mobile emissions from motor vehicles are the largest single long-term source of air pollutants from the Project. Operational emissions from all emission sources were generated by the URBEMIS2007 model using the rural scenario as vehicle miles traveled are greater.

The Project will be built out in three phases. Therefore, Phase I of the project could be operational while construction of Phase II is occurring. The emissions after completion of Phase I during its operation are shown in Table 4.3-8. As shown in the table, emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} exceed the significance thresholds.

Table 4.3-8: Operational Emissions (Phase I, 2011, Winter, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	56.1	85.5	606.3	0.6	119.8	23.3
Area source	127.2	14.8	264.5	0.7	40.5	39.0
Subtotal Operational	183.3	100.3	870.8	1.3	160.3	62.3
Existing	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total Operational	154.0	84.3	857.9	1.3	145.7	58.7
Construction of Phase II	43.7	78.7	147.9	0.2	105.7	25.7

Table 4.3-8 (Cont.): Operational Emissions (Phase I, 2011, Winter, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Sum of Construction of Phase II and Operational	197.7	163.0	1005.8	1.5	251.4	84.4
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	Yes
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

Phase II could be operational while construction of Phase III occurs. The emissions associated with the operation of Phase I and Phase II are shown in Table 4.3-9. As shown in the table, emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} exceed the significance thresholds.

Table 4.3-9: Operational Emissions (Phase II, 2014, Winter, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	77.4	116.4	831.8	1.0	204.7	39.9
Area source	207.2	25.3	430.7	1.2	66.0	63.5
Subtotal Operational	284.6	141.7	1262.5	2.2	270.7	103.4
Existing	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total Operational	255.3	125.7	1249.6	2.2	256.1	99.8
Construction of Phase III	20.6	51.0	95.5	0.1	103.5	23.9
Sum of Construction of Phase III and Operational	275.9	176.7	1345.1	2.3	359.6	123.7
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	Yes
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

The operational emissions as generated in the winter after complete buildout of all the phases (I, II, and III) are shown in Table 4.3-10. As shown in the table, emissions of VOC, NO_x, CO, PM₁₀, and PM_{2.5} exceed the SCAQMD regional significance thresholds.

Table 4.3-10: Operational Emissions (Buildout, 2019, Winter, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	61.2	85.8	636.0	1.2	228.5	44.4
Natural gas	1.1	14.2	6.1	0.0	<0.1	<0.1
Hearth/Fireplaces	168.3	14.0	466.6	1.3	72.4	69.7
Consumer products	55.1	—	—	—	—	—
Architectural coatings	3.0	—	—	—	—	—
Subtotal	288.7	114.0	1108.7	2.5	300.9	114.1
Existing *	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total	259.4	98.0	1095.8	2.5	286.3	110.5
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	Yes
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

The Preserve Specific Plan and EIR

The Preserve EIR indicated that emissions of CO and NO_x were significant; emissions of VOC and particulates were determined to be less than significant because The Preserve was removing a large quantity of existing dairies. The Project analysis indicates that there are greater air quality impacts, for emissions of VOC, PM₁₀, and PM_{2.5} are also significant.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(b)] The information shown above indicates that the SCAQMD regional emission thresholds will be exceeded. Therefore, without mitigation, the long-term emissions are considered to have a significant regional impact.

Mitigation Measures

AQ-8 Installation of open-hearth wood-burning fireplaces shall be prohibited. Natural gas-burning fireplaces shall be installed where builders are including fireplaces for their projects.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(b)] Even after implementation of mitigation measures, the Project's operations would continue to exceed the regional thresholds.

Mitigation measure AQ-8 reduces emissions from the fireplaces. The emissions upon completion of Phase I are shown in Table 4.3-11. As shown in the table, mitigation reduces emissions of PM_{2.5} to below the level of significance. However, emissions of VOC, NO_x, CO, and PM₁₀ still exceed the regional significance thresholds.

Table 4.3-11: Operational Emissions (Phase I, Winter, Mitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	56.1	85.5	606.3	0.6	119.8	23.3
Area source	33.1	11.0	4.8	0.0	0.3	0.3
Subtotal Operational	89.2	96.5	611.1	0.6	120.1	23.6
Existing	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total Operational	59.9	80.5	598.2	0.6	105.5	20.0
Construction of Phase II	43.7	78.7	147.9	0.2	62.2	16.6
Sum of Construction of Phase II and Operational	103.6	159.2	746.1	0.8	167.7	36.6
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	No
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

Operational emissions after completion of Phase II are displayed in Table 4.3-12. As shown in table, mitigation reduces the significance of PM_{2.5} emissions to less than significant. However, emissions of VOC, NO_x, CO, and PM₁₀ would still exceed the regional significance thresholds.

Table 4.3-12: Operational Emissions (Phases I and II, 2014, Winter, Mitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	77.4	116.4	831.8	1.0	204.7	39.9
Area source	54.2	19.3	8.3	0.0	0.6	0.6
Subtotal	131.6	135.7	840.1	1	205.3	40.5
Existing	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total	102.3	119.7	827.2	1.0	190.7	36.9
Construction of Phase III	20.6	51.0	95.5	0.1	60.0	14.8
Sum of Construction of Phase III and Operation	122.9	170.7	922.7	1.1	250.7	51.7
Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	No
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

Long-term emissions during winter after implementation of mitigation measure AQ-8 are provided in Table 4.3-13 below and represent the emissions upon complete buildout of the Project. As shown in

the table, emissions of SO_x and PM_{2.5} are below the significance thresholds. Note that the mitigation reduces PM_{2.5} emissions to less than significant. However, emissions of VOC, NO_x, CO, and PM₁₀ still would exceed the significance thresholds. Therefore, the proposed Project would have a significant impact on air quality during operation.

Table 4.3-13: Operational Emissions (Buildout, 2019, Winter, Mitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	61.2	85.8	636.0	1.2	228.5	44.4
Natural gas	1.1	14.2	6.1	0.0	<0.1	<0.1
Hearth	0.4	7.4	3.2	0.1	0.6	0.6
Consumer products	55.1	—	—	—	—	—
Architectural coatings	3.0	—	—	—	—	—
Subtotal	120.8	107.4	645.3	1.3	229.1	45.0
Existing	-29.3	-16.0	-12.9	-0.0	-14.6	-3.6
Total	91.5	91.4	632.4	1.3	214.5	41.4
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	No
VOC = volatile organic compounds NO _x = nitrogen oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: MBA 2008.						

Carbon Monoxide Hotspot Analysis

Impact 4.3-3:	The Project would not cause or contribute to a carbon monoxide violation from the Project-related and cumulative traffic during operation. [CEQA Air Quality Threshold 3(b)]

Impact Analysis

A carbon monoxide (CO) hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations would be the greatest.

Table 4.3-14 displays the analysis of the modeled concentrations of CO at impacted intersections. As shown in the table, concentrations of CO from motor vehicles during project operation at Project impacted intersections would not result in a significant impact or exceed the applicable ambient air quality standards.

Table 4.3-14: Carbon Monoxide Hotspot Analysis

Intersection	1 Hour Estimated CO Concentration (ppm)	8 Hour Estimated CO Concentration (ppm)	Significant Impact?*
4: SR-71 Fwy SB Ramps at Pine Avenue	7.6	5.1	No
5: SR-71 Fwy NB Ramps at Pine Avenue	7.9	5.3	No
11: Euclid Avenue at Edison Avenue	8.4	5.7	No
12: Euclid Avenue at Eucalyptus Avenue	8.0	5.4	No
14: Euclid Avenue at Kimball Avenue	8.1	5.5	No
16: Euclid Avenue at Pine Avenue	8.5	5.7	No
19: Sultana Avenue at Pine Avenue	7.9	5.3	No
22: Chino Corona Road/Mill Creek Road at Pine Avenue	8.1	5.5	No
23: Cucamonga Avenue at Chino Corona Rd.	7.8	5.3	No
30: Main Street/North East Site Access at Chino Corona Road	7.7	5.2	No
32: East Preserve Loop at Pine Avenue	8.0	5.4	No
35: Hellman Avenue at Chino Corona Rd.	7.8	5.3	No
37: Archibald Street at Schleisman Road	8.0	5.4	No
39: Archibald Street at River Road	8.1	5.5	No
44: Harrison Avenue at Schleisman Road	7.7	5.2	No
45: Sumner Road at Schleisman Road	7.7	5.2	No
47: Hamner Avenue at Schleisman Road	8.1	5.5	No
* Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm. Source: MBA 2008.			

The Preserve Specific Plan and EIR

Consistent. Page 5.9-26 in the Preserve Specific Plan Final EIR indicated that this impact was less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Air Quality Plan

Impact 4.3-4:	The Project could conflict with or obstruct implementation of the applicable air quality plan. [CEQA Air Quality Threshold 3(a)]

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the proposed Project would conflict with or obstruct implementation of the applicable air quality plan.

This assessment will use the following criteria for determining Project consistency with the current Air Quality Management Plan (AQMP), as discussed below.

Project's Contribution to Air Quality Violations

According to the SCAQMD (1993), a project is consistent with the AQMP if a project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, Page 12-3). As discussed below, the Project could violate any air quality standard or contribute substantially to an existing or projected local air quality violation. Therefore, the Project does not meet the first indicator.

Control Measures

The next criterion is compliance with the control measures in the 2003 AQMP and the 2007 AQMP. The Project would comply with all of the SCAQMD's applicable rules and regulations. Therefore, the Project complies with this criterion.

Compliance with the SCAQMD Regional Thresholds

Although there is no known guidance that correlates AQMP consistency with the SCAQMD regional thresholds, it is common to use the SCAQMD thresholds in assessing AQMP compliance. The regional significance analysis of construction emissions demonstrated that without mitigation, emissions during construction and operation would exceed the SCAQMD regional thresholds. Therefore, without mitigation, the Project is not consistent with the SCAQMD regional thresholds.

The Preserve Specific Plan and EIR

The Preserve EIR indicated, "...project implementation is considered consistent with regional jobs/housing balance and air quality goals..." (page 5.9-20 of The Preserve EIR). The Project analysis indicates that this impact is significant because the Project exceeds the regional significance thresholds. The Project analysis is more conservative.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(a)]

Mitigation Measures

Refer to mitigation measures AQ-1 through AQ-8.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(a)] As shown in Table 4.3-15, the Project with mitigation does not comply with the AQMP.

Table 4.3-15: Summary of Compliance with Air Quality Management Plan (with Mitigation)

Criteria	Project Impact with Mitigation
Contribution to Air Quality Violation	Significant. The proposed Project could result in a potential violation of the PM ₁₀ ambient air quality standard at the closest sensitive receptor.
Compliance with control measures in AQMP	Less than significant. The proposed Project would comply with the control measures in the AQMP.
Consistency with SCAQMD regional emissions thresholds	Significant. Project emissions during grading would exceed the SCAQMD's regional emission thresholds for NO _x , PM ₁₀ , and PM _{2.5} even after mitigation. Project emissions during operation would exceed the SCAQMD regional significance thresholds for VOC, NO _x , CO, and PM ₁₀ even after mitigation.

Air Quality Standards / Violations

Impact 4.3-5:	The Project could violate an air quality standard or contribute substantially to an existing or projected air quality violation. [CEQA Air Quality Threshold 3(b)]

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the proposed Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The South Coast Air Basin, the geographical area in which the Project is located, is in nonattainment for PM₁₀, PM_{2.5}, and ozone. Levels of PM₁₀ and PM_{2.5} are locally high enough that contributions from new sources may add to the concentrations of those pollutants and contribute to a projected air quality violation. Although background levels of ozone are high in the basin, the Project alone (without other cumulative sources) would not contribute substantially to a projected air quality violation of ozone. Project emissions of VOC and NO_x (ozone precursors) and their cumulative contribution to ozone concentrations are discussed in Impact 4.2-6.

Two criteria are used to assess the significance of this impact: 1) the localized construction analysis (see Impact 4.2-1); and 2) the CO hotspot analysis (see Impact 4.2-3).

The localized construction analysis uses thresholds that represent the maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard. These LSTs are specific to each source receptor area (SCAQMD 2003). If the Project results in emissions that do not exceed those thresholds, it follows

that it would not cause or contribute to a local exceedance of the standard. The localized construction analysis contained in Impact 4.2-1 analysis, demonstrated that without mitigation, the Project would not exceed the localized thresholds for CO or nitrogen dioxide. However, concentrations of PM₁₀ and PM_{2.5} would exceed the LSTs. Therefore, according to this criterion, the air pollutant emissions during construction would result in a significant impact.

A CO hotspot analysis is the appropriate tool to determine if Project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the Project site. The CO hotspot analysis demonstrated that Project emissions of CO during operation along with emissions from other foreseeable projects in the area would not result in an exceedance of the most stringent ambient air quality standards for CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact.

Particulate matter emissions during operation (PM₁₀ and PM_{2.5}) are primarily from paved road dust. This fugitive dust would be limited to the area surrounding the roadway network. Therefore, it is not likely that the Project would generate enough road dust during operation to violate a PM₁₀ or PM_{2.5} ambient air quality standard.

Sulfur dioxide emissions from the Project are negligible. The regional analysis demonstrated that emissions are far under the regional significance threshold. Therefore, it follows that on a localized basis, emissions of sulfur dioxide would not exceed the ambient air quality standards. In addition, the basin is in attainment for sulfur dioxide and does not experience high pollutant episodes of that pollutant. Therefore, potential impacts of sulfur dioxide are less than significant.

The Preserve Specific Plan and EIR

The Preserve EIR does not specifically identify an impact on air quality standards and violations. Therefore, the Project analysis is more conservative because it addresses the issue.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(b)]

Mitigation Measures

Refer to mitigation measures AQ-1 through AQ-7.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(b)]

Cumulative Criteria Pollutants

Impact 4.3-6:	The Project could result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). [CEQA Air Quality Threshold 3(c)]

Impact Analysis

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts incorporates a summary of projections. The following tiered approach is to assess cumulative air quality impacts.

1. Consistency with the regional thresholds for nonattainment pollutants;
2. Project consistency with existing air quality plans;
3. Assessment of the cumulative health effects of the pollutants.

Regional Analysis

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically been over the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The South Coast Air Basin is in nonattainment for PM₁₀, PM_{2.5}, and ozone. Therefore, if the Project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. Additionally, if the Project exceeds the regional threshold for NO_x or VOC, then it follows that the Project would contribute to a cumulatively considerable impact for ozone.

The regional significance analysis of construction emissions demonstrated that without mitigation, emissions of PM₁₀, PM_{2.5}, and NO_x would exceed the SCAQMD regional significance thresholds. NO_x is an ozone precursor pollutant. Therefore, according to this criterion, the Project results in a significant cumulative impact to PM₁₀, PM_{2.5}, and ozone.

The regional significance analysis of operational impacts indicates that the Project would exceed regional significance thresholds for VOC, NO_x, CO, PM_{2.5}, and PM₁₀ at buildout without mitigation. Therefore, according to this criterion, the Project would result in a significant cumulative impact to ozone, PM₁₀, and PM_{2.5}.

CO levels in the Project area have not exceeded the CO standards in the past several years. Additionally, CO is an attainment pollutant in the South Coast Air Basin. Therefore, although the Project would exceed the regional threshold for CO, the Project would not result in cumulatively considerable CO impact. Additionally, the CO hotspot analysis takes into account CO emissions from cumulative traffic. The CO hotspot analysis demonstrated that the Project would not result in an exceedance of the CO standards.

In summary, without mitigation, the Project contributes to a cumulatively significant regional impact to the budget of the pollutants ozone, PM₁₀, and PM_{2.5}.

Plan Approach

The geographic scope for cumulative air quality impacts is the South Coast Air Basin because that is the area in which the air pollutants generated by the sources within the basin circulate and are often trapped. The SCAQMD is required to prepare and maintain an AQMP and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SCAQMD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning are necessary to maintain clean air. As a result, the SCAQMD evaluates the entire basin when it develops the AQMP.

According to the analysis contained in Impact 4.2-4, the Project is not consistent with the most recent AQMP without mitigation. Therefore, the Project presents a significant impact according to this criterion.

Cumulative Health Impacts

The basin is in nonattainment for ozone, PM₁₀, and PM_{2.5}, which means that the background levels of these pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (i.e., elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population experience health effects. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in severity and nature of health impacts. If a significant health impact results from Project emissions, it does not mean that 100 percent of the population would experience health effects.

The regional significance analysis of construction emissions demonstrated that without mitigation, emissions of PM₁₀, PM_{2.5}, and NO_x would be over the SCAQMD regional significance thresholds.

NO_x is an ozone precursor pollutant. Therefore, according to this criterion, the Project results in a significant cumulative impact to PM₁₀, PM_{2.5}, and ozone during construction without mitigation.

The regional significance analysis of operational impacts indicates that the Project would exceed regional significance thresholds for VOC, NO_x, PM_{2.5} and PM₁₀ at buildout. Therefore, according to this criterion, the Project results in a significant cumulative impact to ozone, PM₁₀, and PM_{2.5}.

During construction and operation, the proposed Project could result in a significant cumulative contribution to ozone. Health impacts may be experienced by sensitive individuals when concentrations of ozone reach levels exceeding the ambient air quality standards. Health impacts may or may not include the following: (a) decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) declines in pulmonary function growth in children; or (e) risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans. Other impacts may include vegetation damage and property damage. Short-term exposure can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (SCAQMD AQMP 2003). Children who live in high ozone communities and who participate in multiple sports have been observed to have a higher asthma risk. This is a significant cumulative health impact associated with ground-level ozone concentrations.

Additionally, during construction and operation, the proposed Project could result in a significance cumulative contribution to PM_{2.5} and PM₁₀. Sensitive individuals may experience health impacts when concentrations of those pollutants exceed the ambient air quality standards. Health impacts from particulate matter may include the following: (a) exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) and/or increased risk of premature death from heart or lung diseases in the elderly.

Long-term operational emissions of CO are also over the regional significance threshold. To determine the potential of Project-generated CO to cumulatively cause health impacts, a CO hotspot analysis is performed. The CO hotspot analysis (contained herein) estimates CO concentrations at Project impacted intersections. The CO hotspot takes into account the cumulative traffic on the surrounding roadways. It was shown that with the cumulative traffic and the background concentrations, the Project would not cause an exceedance of the most stringent air quality standards for CO.

The Preserve Specific Plan and EIR

The Preserve EIR indicated that The Preserve would result in a cumulatively considerable impact. This impact is the same as the significant level for the Project.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(c)] The proposed Project would exceed the regional thresholds for PM₁₀, PM_{2.5} and NO_x during construction and VOC, NO_x, PM_{2.5}, and PM₁₀ during operation. Therefore, the proposed Project could significantly contribute to a cumulative impact for ozone, PM₁₀, and PM_{2.5}, which could result in cumulative health impacts.

Mitigation Measures

Refer to mitigation measures AQ-1 through AQ-8.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(c)]

Table 4.3-16: Cumulative Impact Summary (with Mitigation)

Cumulative Impact Criteria	Project Impact with Mitigation
Regional Analysis of Air Pollutants	Significant. Mitigation reduces the impact of PM _{2.5} during operation. However, emissions of NO _x , PM _{2.5} , and PM ₁₀ during grading would exceed regional thresholds. Emissions of VOC, NO _x , CO, and PM ₁₀ would exceed regional thresholds during operation after mitigation.
Consistency with Air Quality Plans	Significant. The Project would exceed the SCAQMD's regional emission significance thresholds during construction and operation.
Cumulative Health Impact	Significant. After mitigation, ozone precursor emissions during construction and operation could result in cumulative health effects from ozone exposure. Health impacts may be experienced by sensitive individuals when concentrations of ozone reach levels over the ambient air quality standards. Health impacts may or may not include the following: (a) decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; or (d) risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans. Short-term exposure can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (SCAQMD AQMP 2003). Children who live in high ozone communities and who participate in multiple sports have been observed to have a higher asthma risk. This is a significant cumulative health impact associated with ground-level ozone concentrations. After mitigation, the Project could contribute to a cumulatively significant health impact from emissions of PM₁₀. Health impacts may or may not include the following: (a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; or (c) Increased risk of premature death from heart or lung diseases in the elderly.
Source: MBA 2008.	

Sensitive Receptors

Impact 4.3-7:	The Project would expose sensitive receptors to substantial pollutant concentrations. [CEQA Air Quality Threshold 3(d)]

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the proposed Project would expose sensitive receptors to substantial pollutant concentrations.

Construction

The localized construction analysis uses thresholds that represent the maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area. The thresholds are also based on the location of the sensitive receptors. If the Project results in emissions under those thresholds, it follows that it would not cause or contribute to an exceedance of the standard. If the standards are not exceeded at the sensitive receptor locations, it follows that the receptors would not be exposed to substantial pollutant concentrations.

The localized construction analysis demonstrated that without mitigation, the Project would not exceed the localized thresholds for CO or nitrogen dioxide. However, without mitigation PM_{2.5} exceeds the localized threshold. Even with mitigation, PM₁₀ exceeds the localized threshold. Therefore, during construction, the Project could expose sensitive receptors to substantial pollutant concentrations.

The construction equipment would emit diesel particulate matter, which is a carcinogen. However, the diesel particulate matter emissions are short term in nature. Determination of risk from diesel particulate matter is considered over a 70-year exposure time. Therefore, considering the dispersion of the emissions and the short time frame, exposure to diesel particulate matter is anticipated to be less than significant.

Operation

Emissions of NO_x and VOC (ozone precursors) during construction and operation from only the Project would not expose sensitive receptors to substantial pollutant concentrations (see Cumulative Impact analysis for an assessment of the cumulative contribution of ozone precursors).

A CO hotspot analysis is the appropriate tool to determine if Project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project. The CO hotspot analysis demonstrated that emissions of CO during operation would not result in an exceedance of the most stringent ambient air quality standards for CO. Therefore, according to this

criterion, the impact of air pollutant emissions to sensitive receptors during operation would result in a less than significant impact.

The CARB Air Quality and Land Use Handbook contains recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (CARB 2005), including recommendations for distances between sensitive receptors and certain land uses. As discussed in the Air Quality Analysis Report (Appendix C), the Project is located at an appropriate distance from the following uses: heavily traveled roads; fueling stations; distribution centers; and dry cleaners.

In summary, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations during operation.

The Preserve Specific Plan and EIR

The Preserve EIR did not identify this as an impact. Therefore, the Project presents a more conservative analysis than The Preserve.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(d)]

Mitigation Measures

Mitigation measure AQ-1 is required.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(d)] The proposed Project would cause an exceedance of the PM₁₀ localized significance threshold after mitigation at the nearest sensitive receptor located to the west of the Project boundary during mass grading activities. Therefore, potential health effects from exposure to PM₁₀ during grading may include: (a) exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) increased risk of premature death from heart or lung diseases in the elderly.

Odors

Impact 4.3-8:	The Project would create objectionable odors affecting a substantial number of people. [CEQA Air Quality Threshold 3(e)]

Impact Analysis

Land uses typically considered to be associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The proposed Project does not contain land uses typically associated with emitting objectionable odors. Diesel exhaust and VOCs will be emitted during construction of the Project, which are objectionable to some; however, emissions will disperse rapidly from the Project site and therefore should not be at a level to induce a negative response.

There are other dairies still in operation near the proposed Project. There is one directly adjacent to the western boundary of the Project. To the east of the Project, there is an equestrian facility and another dairy operation. Odorous compounds from the dairies include ammonia and hydrogen sulfide (smells like rotten eggs). It is anticipated that the impact of the nearby odor sources is significant.

The Preserve Specific Plan and EIR

The Preserve EIR indicated that odors to The Preserve from the surrounding dairies would be significant. The significance finding is the same as for the Project.

Level of Significance Before Mitigation

Significant. [CEQA Air Quality Threshold 3(e)]

Mitigation Measures

There are no mitigation measures the Project could impose to reduce the potential impact to less than significant, as the nearby dairy odors would impact the residents when they are outside.

Level of Significance After Mitigation

Significant. [CEQA Air Quality Threshold 3(e)]

Cumulative Impacts

Impact 4.3-9: The proposed Project would contribute to a cumulative impact to air quality.

Impact Analysis

As discussed in Impact 4.3-6, the Project would exceed the regional thresholds for PM₁₀, PM_{2.5}, and NO_x during construction and VOC, NO_x, PM_{2.5}, and PM₁₀ during operation. Therefore, the proposed Project could significantly contribute to a cumulative impact for ozone, PM₁₀, and PM_{2.5}, which could result in cumulative health impacts.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

Refer to mitigation measures AQ-1 through AQ-8.

Level of Significance After Mitigation

Significant.

4.3.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this

Draft EIR. Table 4.3-17 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.3-17: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Air Quality

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
AQ-1. Fugitive Dust Control Plan.	AQ-2. Construction Emissions. (Third, fourth, fifth, sixth, seventh, eighth, and fourteenth bullets regarding reducing fugitive dust emissions.)	The measures are consistent.
AQ-2. Construction Equipment.	AQ-2. Construction Emissions. (Ninth bullet regarding construction maintenance.)	The measures are consistent.
AQ-3. Construction Equipment.	None	No corresponding Preserve EIR mitigation measure.
AQ-4. Traffic Control Plan.	AQ-2. Construction Emissions. (Thirteenth bullet regarding construction parking.)	The mitigation measure for the Project requires a Traffic Control Plan.
AQ-5. Off-road Construction Vehicles	AQ-2. Construction Emissions. (First and twelfth bullet regarding low emission equipment.)	The measure for the Project is enforceable and requires the use of cleaner construction equipment during grading.
AQ-6. Electrical Hook-ups.	AQ-2. Construction Emissions. (Eleventh bullet regarding electrical hookups.)	The measures are consistent.
AQ-7. Asphalt Paving.	None	No corresponding Preserve EIR mitigation measure.
None	AQ-2. Construction Emissions. (Second bullet regarding encouraging rideshare during construction.)	No conflict between Preserve EIR and Project.
None	AQ-2. Construction Emissions. (Tenth bullet regarding use of low sulfur fuel in stationary equipment pursuant to AQMD Rules 431.1 and 431.2)	This measure would only apply to stationary equipment, such as onsite generators. Project mitigation measure AQ-6 provides for electrical hookups, which would reduce the need for generators and would reduce the need for this mitigation measure.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.4 - Biological Resources

4.4.1 - Introduction

This section describes the existing biological resources and potential effects from Project implementation on the site and surrounding area. Descriptions and analysis in this section are based on information contained in:

- Biological Technical Report for the Edgewater Communities Property, prepared by Glenn Lukos Associates, Inc. (GLA, September 2007), included in this EIR in Appendix D;
- Jurisdictional Delineation Report for the Edgewater Communities Property, prepared by GLA (July 2007), included in this EIR in Appendix D;
- Memorandums addressing basin revegetation and plants to be avoided, prepared by GLA (2008), included in this EIR in Appendix D;
- The Preserve Final EIR and Resources Management Plan (RMP), City of Chino (2003);
- The Preserve Resources Management Plan Mitigation Fee Nexus Study, prepared by PCR Services Corporation (2004); and
- The Preserve Raptor Foraging Habitat Assessment, prepared by PCR Services Corporation (2002).

Comment letters on the Notice of Preparation of the EIR for the Edgewater Communities Project that addressed biological resources, contained in Appendix A, were received by the City of Chino in order of receipt from the Endangered Habitats League, Department of Fish and Game, and Orange County Water District. Oral comments were obtained at the public scoping meeting held on January 11, 2007 from representatives of the Sierra Club and Tri-County Conservation League, Regional Water Quality Control Board, and Inland Empire Utilities Agency.

4.4.2 - Existing Conditions

Plant Communities

Nine plant communities/land types are mapped on the Project site and are summarized below (see Exhibit 4.4-1).

Agriculture

Approximately 144.5 acres of land associated with the Project site is considered agriculture/disc'd fields. These acres are currently mostly devoid of vegetation due to frequent discing. Seasonally, these fields provide foraging opportunities for a number of raptor species.

Disturbed / Developed

Approximately 56.2 acres of disturbed/developed areas occur on the Project site, which includes dirt roads, barren sites, and structures associated with the cattle corrals and residential structures. These

areas are mostly devoid of vegetation, except for locally dense patches of non-native vegetation and/or ornamental trees and shrubs.

Pasture

Approximately 28.3 acres of pasture occurs on the Project site. The pasture areas are highly disturbed due to the presence of cattle and are mostly devoid of vegetation. Species that occur within the pasture areas are mostly non-native and include bull thistle (*Cirsium vulgare*), castor bean (*Ricinus communis*), ripgut brome (*Bromus diandrus*), horehound (*Marrubium vulgare*), fennel (*Foeniculum vulgare*), jimson weed (*Datura wrightii*), spiny cocklebur (*Xanthium spinosum*), sunflower (*Helianthus annuus*), hare barley (*Hordeum leporinum*) and Bermuda grass (*Cynodon dactylon*). The native alkaline-tolerant forb alkali heliotrope (*Heliotropium curassavicum*) is also found within the pasture areas on site.

Ruderal

Approximately 15.9 acres of ruderal vegetation occur within the Project site. Ruderal vegetation consists mostly of non-native species such as black mustard (*Brassica nigra*), horseweed (*Conyza canadensis*), jimson weed, willow smartweed (*Polygonum lapathifolium*), Russian thistle (*Salsola tragus*), lamb's quarters (*Chenopodium album*), sunflower, bull thistle, and five-hook bassia (*Bassia hyssopifolia*). However, several large black willow trees (*Salix goodingii*) and cottonwood trees (*Populus fremontii*) are interspersed within ruderal areas adjacent to Mill Creek.

Southern Willow Forest

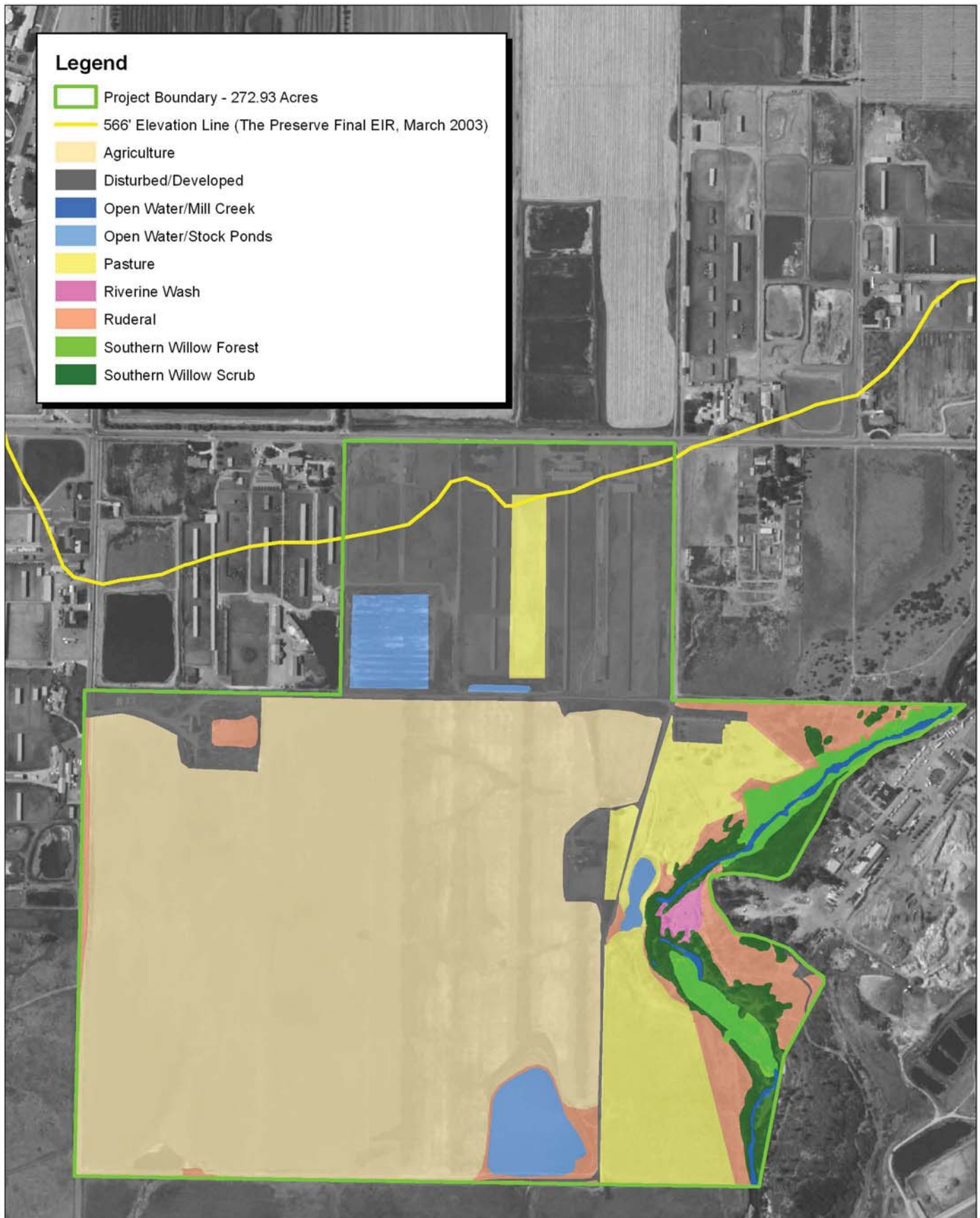
Approximately 5.7 acres of willow forest associated with Mill Creek occur on the eastern edge of the Project site. This association is dominated by mature black willow and arroyo willow (*Salix lasiolepis*), with an understory of mulefat (*Baccharis salicifolia*), sweet clover (*Melilotus albus*) and horseweed. Other trees found within willow forest include California black walnut (*Juglans californica*) and cottonwood. Additional understory species include tree tobacco (*Nicotiana glauca*), giant reed (*Arundo donax*), sunflower, sandbur (*Ambrosia acanthicarpa*), and willow smartweed.

Southern Willow Scrub

Approximately 9.2 acres of willow scrub associated with Mill Creek occur on the eastern edge of the Project site. Dominant vegetation includes small individuals of willow (black and arroyo) and mulefat. Understory species include nettle (*Urtica urens*), willow smartweed, giant reed, sandbur, and sunflower. Small patches of cattail (*Typha domingensis*) are found adjacent to Mill Creek within the willow scrub.

Riverine Wash

Approximately 0.92 acre of riverine wash associated with Mill Creek is located on the eastern edge of the Project site. This area is mostly open with a sandy/cobbly substrate interspersed with small patches of mulefat and arroyo willow. Other less dominant species within the riverine wash area include willow smartweed, sunflower, five-hook bassia, sand bur, horseweed, and tree tobacco.



Source: San Bernardino County NAIP, 2005 & Glenn Lukos Associates.

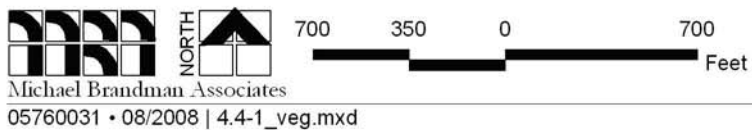


Exhibit 4.4-1 Plant Communities Map

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Open Water/Stock Ponds

Approximately 10.5 acres of open water associated with agricultural and stock ponds occurs on the Project site. The margins of these ponds areas are highly disturbed and are dominated by non-native plant species. These ponds and associated mudflats provide foraging opportunities for migratory and resident waterfowl, shorebirds, egrets, herons, and swallows.

Open Water/Mill Creek

Approximately 1.62 acres of open water is associated with the portion of Mill Creek within the Project site.

Special Status Wildlife Species

Threatened and Endangered Species

Least Bell's Vireo (LBV)

Three territories of least Bell's vireo (*Vireo bellii pusillus*) (LBV), a federally and state endangered species, were identified along the portion of Mill Creek within and adjacent to the Project site (see Exhibit 4.4-2). LBV would utilize the riparian habitat associated with Mill Creek for both foraging and breeding opportunities. The Project site includes a total of 56.5 acres of least Bell's vireo designated Critical Habitat, as mapped by the U.S. Fish and Wildlife Service (USFWS). The extent of critical habitat within the Prado Basin, as stated in the Federal Register (1994) and included in the Project Biological Technical Report, consists of "All lands below the 543-contour in partially surveyed Township 3 South, Range 7 West within the Prado Flood Control Basin." Much of the 56.5 acres of designated LBV Critical Habitat within the Project site (or approximately 38.1 acres) is comprised of upland agricultural fields, cattle facilities, and ruderal areas that do not contain any suitable habitat for least Bell's vireo due to the absence of any primary constituent elements of suitable LBV habitat, which generally includes riparian vegetation. The remaining 18.4 acres of designated Critical Habitat provides suitable LBV habitat.

Southwestern Willow Flycatcher

Southwestern willow flycatcher (*Empidonax traillii extimus*), a federally and state endangered species, was confirmed as absent from the riparian habitat that overlaps the Project site during focused surveys conducted in 2005. The habitat is not ideally suited for southwestern willow flycatcher and they are not likely to occupy this portion of Mill Creek in the near future.

State Fully Protected Species

White-Tailed Kite

The white-tailed kite, a state fully protected species when nesting, occasionally utilizes the Project site for foraging. The riparian habitat associated with Mill Creek may provide breeding habitat for white-tailed kite, as they are known to nest in the Prado Basin. Other areas of the Project site do not provide breeding habitat due to the absence of trees; the exception is that several trees occur around the existing ranch house (pictured in Exhibit 3-5c, Photograph 6) that could provide low potential as nest sites for this species.

State Sensitive Species

Table 4.4-1 summarizes the state sensitive species that have been observed and/or have a moderate potential to occur on the Project site.

Burrowing Owl (BUOW)

Based on focused surveys, five nesting burrowing owl (BUOW) territories along with two unpaired single BUOWs occurred on or near the Project site in 2005, and two nesting BUOW territories along with four unpaired individuals occurred on or near the Project site in 2007 (Exhibit 4.4-2). Within the boundaries of the Project site, the BUOWs occur on the northern end where nesting burrows have been established in areas not subject to disking or active agriculture. These BUOWs likely use portions of the agricultural fields and pasture areas that occur on the Project site for foraging.

Other Species

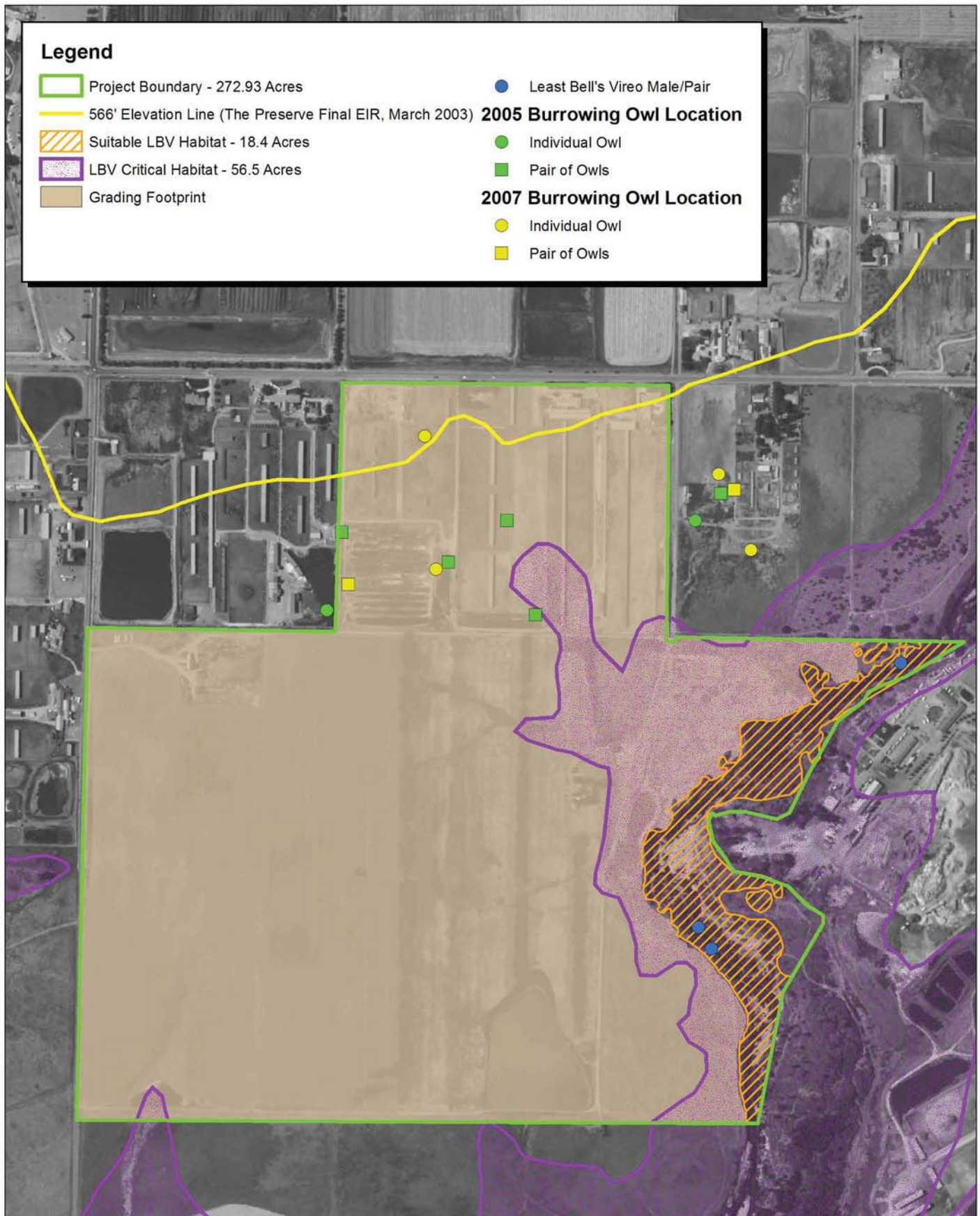
As Table 4.4-1 shows, a number of species that are considered sensitive when nesting utilize the Project solely for foraging. These include double-crested cormorant, great egret, snowy egret, great-blue heron, black-crowned night heron, and white-faced ibis. There are several species that utilize the riparian habitat associated with Mill Creek for foraging and nesting, including yellow warbler, yellow-breasted chat, and Cooper's hawk.

Raptor Foraging Habitat

A number of common and special-status raptor species have been observed and/or have a moderate potential to utilize the Project site for foraging. Common raptor species observed on the Project site include: American kestrel, red-tailed hawk, Cooper's hawk, barn owl, great-horned owl, and turkey vulture. Special-status raptor species observed on the Project site include: white-tailed kite, BUOW, ferruginous hawk, merlin, northern harrier, and prairie falcon. Additional special-status raptor species that may occasionally forage on the Project site but have yet to be observed include golden eagle, peregrine falcon, sharp-shinned hawk, and long-eared owl.

4.4.3 - Sensitive Natural Communities

Approximately 17.5 acres of the Project site within the Mill Creek area supports sensitive riparian plant communities, which includes southern willow forest, southern willow scrub, riverine wash, open water, and other associated habitat (Exhibit 4.4-1). Common plant species in this community include: black willow, arroyo willow, cottonwood, mulefat, and associated understory plants such as willow smartweed, nettle, and cattail.



Source: San Bernardino County NAIP, 2005.



Michael Brandman Associates

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Exhibit 4.4-2 Sensitive Biological Resources Map

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Table 4.4-1: State Sensitive Wildlife Species

Species	Status ¹	Habitat	Potential For Occurrence ²
Two-striped garter snake (<i>Thamnophis hammondi</i>)	CSC	Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation	High within Mill Creek
Golden eagle (<i>Aquila chrysaetos</i>)	CSC wintering	Forages in grasslands and other open terrain	Breeding-None Foraging-Moderate
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	CSC nesting	Occupies aquatic habitats in all seasons and requires feeding habitats and suitable places for daytime resting and nighttime roosts	Breeding-None Foraging-Present
Great egret (<i>Ardea alba</i>)	CSC nesting	Foraging habitat includes lakes, rivers, irrigation ditches, and marshes	Breeding-Low Foraging-Present
Great blue heron (<i>Ardea herodias</i>)	CSC nesting	Breeding sites are always near water, such as isolated riparian woodlands; slow-moving, shallow water provides foraging	Breeding-Low Foraging-Present
Snowy egret (<i>Egretta thula</i>)	CSC nesting	Forages in fresh and saline emergent wetlands, ponds, ditches, and wet fields	Breeding-Low Foraging-Present
Black-crowned night heron (<i>Nycticorax nycticorax</i>)	CSC nesting	Require marshes, ponds, reservoirs, and estuaries for foraging	Breeding-Low Foraging-Present
White-faced ibis (<i>Plegadis chihi</i>)	CSC nesting	Extensive marshes are required for nesting; forage in a variety of habitats including shallow lacustrine waters	Breeding-None Foraging-Present
Long-eared owl (<i>Asio otus</i>)	CSC	Nests in dense riparian woodlands, as well as oak woodlands; forages in open fields with adequate prey	Moderate
Ferruginous hawk (<i>Buteo regalis</i>)	CSC wintering	Grasslands and other open terrain	Breeding-Low Foraging-Present
Burrowing owl (<i>Athene cunicularia hypugaea</i>)	CSC	Grasslands, savannahs and sparse brushlands	Present
Sharp-shinned hawk (<i>Accipiter striatus</i>)	CSC nesting	Oak and riparian woodlands	Moderate
Northern harrier (<i>Circus cyaneus</i>)	CSC nesting	Grasslands and other open terrain	Breeding-Low Foraging-Present

Table 4.4-1 (Cont.): State Sensitive Wildlife Species

Species	Status ¹	Habitat	Potential For Occurrence ²								
Prairie falcon (<i>Falco mexicanus</i>)	CSC wintering	Grasslands, coastal sage scrub, and estuaries	Breeding-Low Foraging-Present								
Merlin (<i>Falco columbarius</i>)	CSC wintering	Winters in open woodland, grasslands, cultivated fields, and marshes	Breeding-Low Foraging-Present								
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSC	Grassland and open scrub	High								
California horned lark (<i>Eremophila alpestris actia</i>)	CSC	Open fields and grasslands	High								
Yellow-breasted chat (<i>Icteria virens</i>)	CSC	Summer resident, nests in low dense riparian scrubs	Present								
Yellow warbler (<i>Dendroica petechia</i>)	CSC	Mature riparian woodland, especially where dominated by willows or alders	Present								
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	CSC	A wide variety of habitats including woodlands and arid grasslands; roosts in mines and caves	Moderate								
California mastiff bat (<i>Eumops perotis californicus</i>)	CSC	Open areas with high cliffs	Moderate								
Yuma myotis (<i>Myotis yumanensis</i>)	CSC	Water and wooded canyon bottoms; roosts in caves and abandoned buildings	Moderate								
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	CSC	Open areas, typically occurring in alluvial sage scrub and open Riversidean sage scrub	High								
Western spadefoot (<i>Scaphiopus hammondi</i>)	CSC	Arid and semi-arid regions in lowlands and foothills in washes, river floodplains, alluvial fans, playas, and Alkali flats	Moderate								
Notes: ¹ Status Legend: <table><tr><td>U.S. Fish and Wildlife Service</td><td>California Department of Fish and Game</td></tr><tr><td>FE Federal Endangered</td><td>SE State Endangered</td></tr><tr><td>FT Federal Threatened</td><td>CSC California Special Concern species</td></tr><tr><td></td><td>SFP Fully Protected</td></tr></table>				U.S. Fish and Wildlife Service	California Department of Fish and Game	FE Federal Endangered	SE State Endangered	FT Federal Threatened	CSC California Special Concern species		SFP Fully Protected
U.S. Fish and Wildlife Service	California Department of Fish and Game										
FE Federal Endangered	SE State Endangered										
FT Federal Threatened	CSC California Special Concern species										
	SFP Fully Protected										

Table 4.4-1 (Cont.): State Sensitive Wildlife Species

Species	Status ¹	Habitat	Potential For Occurrence ²
² Potential for Occurrence: Very Low = Suitable habitat no longer exists for the species within the Project site or its immediate vicinity. No recent records exist of the species occurring within the Project site or vicinity. Low = No recent records exist of the species occurring in the Project site or its immediate vicinity (within approximately 5 miles) and/or the diagnostic habitat requirements strongly associated with the species do not occur on the Project site or its immediate vicinity. Moderate = Either a historical record exists of the species in the Project site or its immediate vicinity and/or the diagnostic habitat requirements associated with the species occur within the Project site or its immediate vicinity. High = A historical record exists of the species in the Project site or its immediate vicinity and/or the habitat is highly suitable for the species on the Project site. Present = Species observed during 2005-2007 baseline biological surveys performed by GLA.			

4.4.4 - Jurisdictional Waters

The Project site includes approximately 17.5 acres of waters under the jurisdiction of both the United States Army Corps of Engineers (USACE) and California Department of Fish and Game (CDFG) within Mill Creek. There are no other areas on the Project site that qualify as jurisdictional waters. There are no waters within the grading footprint of the Project that are subject to the jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the Clean Water Act (GLA 2007). Nuisance flows from the proposed Project will be routed into basins with discharge points outside of USACE and CDFG jurisdiction.

4.4.5 - Wildlife Corridors

As noted in the 2003 RMP, the area below the 566' elevation line within The Preserve accommodates wildlife movement, linking Chino Hills with the Santa Ana River Watershed. Many wildlife species travel to Prado Basin and the surrounding area to breed and forage. Movement by BUOW likely occurs across the Project site as they disperse east-west from the upstream portion of Mill Creek (known as Cucamonga Creek). Although channelized, Cucamonga Creek is known to support BUOW populations, and they are able to freely disperse down the length of this drainage into the southern portion of The Preserve.

In addition, the ponds that currently occur on the Project site provide stopover habitat for a number of shorebird and waterfowl species. The freshwater irrigation and stock ponds provide habitat to several migratory waterfowl and shorebird species that were observed on the Project site, such as common snipe, northern shoveller, cinnamon teal, horned grebe, long-billed dowitcher, greater yellowlegs, American avocet, and least sandpiper.

4.4.6 - Regulatory Setting

Federal and State

Federal and state laws addressing biological resources include: 1) State of California Endangered Species Act; 2) Federal Endangered Species Act; 3) Clean Water Act; and 4) California Fish and Game Code. Multiple regulatory programs associated with these laws addressing biological resources apply to the Project site. A detailed discussion of the state and federal regulations associated with these regulatory programs is contained in the Project Biological Technical Report and Jurisdictional Delineation (see Appendix D of this Draft EIR).

Local

City of Chino General Plan

The City of Chino General Plan Conservation/Open Space Element identifies goals and policies regarding the preservation of City plant and wildlife resources, as indicated in Table 4.4-2 (see Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR for a comprehensive analysis of the Project's consistency with the City's General Plan).

Table 4.4-2: Conservation/Open Space Element Goals and Policies Addressing Plant and Wildlife Resources

Reference	Description
Goal G5-3	Preserve Plant and Wildlife Resources - To encourage the preservation and conservation of plant and wildlife resources in the City.
Policy P5-3.2	Minimize Impacts on Existing Plant and Animal Habitats - To minimize the negative impacts on plant or wildlife habitats.
Policy P5-3.4	Preserve Native Trees and Shrubs - To preserve mature native trees and shrubs in the City.
Policy P5-3.5	Encourage Tree Planting - To encourage the planting of native trees, and encourage the replacement of damaged trees to help improve the aesthetic environment of the City.
Goal G5-15	Open Space for Natural Resources Preservation - To encourage the development of open space for preservation of the City's natural resources.
Policy P5-15.1	Protect Natural Plant and Animal Habitats - To protect and preserve existing natural plant and animal habitats throughout the City.

The Preserve Specific Plan and EIR

Conclusions on the impacts to biological resources of The Preserve Specific Plan were made in The Preserve Final EIR and RMP under the presumption that lands below the 566' elevation line, as currently located, would remain as open land. Final EIR Mitigation Measure B-1 Zoning and Land Use Regulation, in particular, specified open space or agricultural land use designations below the 566' dam inundation line, with limited exceptions. The Preserve Final EIR concluded that, even with the EIR mitigation measures, impacts to BUOW nesting and foraging habitat remained significant at the project level, and the loss of raptor foraging habitat remained cumulatively significant.

4.4.7 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to biological resources are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

- a.) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b.) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c.) 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?

- d.) 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 wildlife nursery sites?
- e.) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f.) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

4.4.8 - Project Impacts and Mitigation Measures

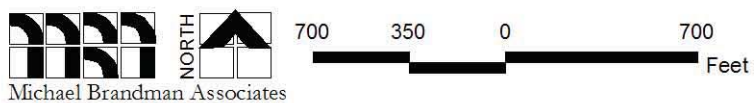
This section discusses potential adverse and beneficial impacts to biological resources associated with the phased development of the Project and provides mitigation measures where appropriate. Table 4.4-3 displays a comparison of land uses under The Preserve Specific Plan (2003) and as amended for the Edgewater Communities Project. The main benefits to biological resources as a result of the proposed Project is the permanent conservation of approximately 52.9 acres (22.9 acres as riparian habitat and 30.0 acres as restored native grassland habitat), and approximately 10.8 acres of basin habitat. There will also be a net benefit/increase of approximately 2.1 acres of suitable habitat for LBV within lake edges. These conserved areas are proposed to mitigate for impacts to wildlife resources, so no real net benefits are expected for wildlife when compared to the existing condition of the Project site, except for a marginal increase in suitable LBV habitat.

Project components related to biological resources are contained between the various phases of the Project. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area (see Exhibits 3-8 and 4.4-3); Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.

Regulatory compliance and various features of the proposed Project related to grading limits, hydrology and water quality, lakes and lake-edge habitat will act to avoid potential indirect effects to biological resources and/or result in beneficial effects, addressed specifically in the impact analyses that follow. The Project will also incorporate urban buffer/transition areas in accordance with The Preserve RMP to minimize indirect effects to adjacent open space areas. The urban buffer/transition areas would include landscaped areas with “barrier plantings,” appropriate signage, and fences/walls restricting access to Mill Creek and conserved open space areas.



Source: San Bernardino County NAIP, 2005 & Glenn Lukos Associates.



Michael Brandman Associates
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Exhibit 4.4-3 Grassland Restoration Site

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT

A straight interpretation of change in acres occurring within the Project site from implementation of the proposed Project indicates a loss of acreage currently used to some degree by wildlife of approximately 142.09 acres from the existing condition, and approximately 138.44 acres from a developed condition according to existing land use designations under The Preserve Specific Plan (see Table 4.4-3). As reflected in the table below, however, area retained as open space within the proposed Project would contain approximately 22.9 acres of riparian habitat, 30.0 acres restored native grassland habitat, 10.8 acres basin habitat, and an increased area of 2.1 acres of suitable LBV habitat within lake edges. Complete avoidance of Mill Creek is proposed, and through Project mitigation, a conservation easement would be established and deeded to an agency that provides land stewardship for the 22.9 acres to be avoided within Mill Creek, to ensure this area is preserved in perpetuity for LBV and other riparian species.

Table 4.4-3: Comparison of The Preserve Specific Plan Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site (acres)		The Preserve Specific Plan as amended for Edgewater Communities Project (acres)		Change (acres)	Comments
Residential and Ancillary Uses						
Total developed acreage devoted to residential and ancillary uses	3.65		142.09		+138.44	
Open Space						
Open Space/Recreation (OS-R)	14.59		71.39		+56.80	
Agricultural and Open Space Natural (AG/OS-N)	197.14		0.00		-197.14	
Open Space Natural (OS-N)	57.55		20.23		-37.32	
Open Space Water	0.00		39.22		+39.22	

Table 4.4-3 (Cont.): Comparison of The Preserve Specific Plan Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site (acres)		The Preserve Specific Plan as amended for Edgewater Communities Project (acres)		Change (acres)	Comments
Subtotal		269.28		130.84	-138.44	Area retained as Open Space within proposed Project would contain 22.9 acres of riparian habitat; 29.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of suitable LBV habitat.
Source: PBR, November 2006, Michael Brandman Associates, 2008.						

Effect on Species

Impact 4.4-1:	The Project could result in short and long-term indirect impacts to least Bell's vireo that occupy habitat associated with Mill Creek. [CEQA Biological Resources Threshold 4(a)]

Impact Analysis

Potential short-term indirect impacts to LBV and other special status species associated with Mill Creek may occur during construction of the Project, and in particular during grading. This could subject Mill Creek to additional noise, vibration, and other motion disturbances that could negatively impact LBV/nesting and their ability to carry on regular daily behaviors.

Development in proximity to Mill Creek and adjacent preserved open space could result in edge effects with the potential to adversely affect biological resources. Edge effects can include noise, motion, night lighting, introduction/colonization of non-native species, increased predation, increased fire frequency, and small-scale environmental changes in temperature, light, and wind. As such, without appropriate design and mitigation, Project implementation could result in indirect edge effect impacts to LBV, as well as other special-status wildlife species that occur in the adjacent habitat. Placement of the grading limit line at the edge of the riparian area to be preserved, and creation of restored native grassland habitat adjacent to the riparian habitat are Project features that will reduce the potential for edge effects.

An indirect impact on LBV and/or other riparian species could also occur if any adverse effect on water quality were to result from Project implementation. Water quality impacts, discussed in detail in Section 4.8, Hydrology and Water Quality, will be less than significant based on adherence to

National Pollutant Discharge Elimination System (NPDES) requirements, inclusion of Project storm drain and water quality systems, and provision of other storm water Best Management Practices (BMPs) outlined within the Preliminary Water Quality Management Plan (PWQMP). Adverse water quality impacts will not be experienced, and associated indirect impacts on LBV and/or other riparian species will not occur from potential water quality effects.

Level of Significance Before Mitigation

Potentially significant. [CEQA Biological Resources Threshold 4(a)]

Mitigation Measures

- BR-1** In conjunction with the 30 acres of restored grassland habitat (BR-9) and prior to the passive relocation of any BUOW within the Project footprint, a conservation easement shall be established and deeded to an agency that provides land stewardship for the 22.9 acres that are to be avoided within Mill Creek to ensure this area is preserved in perpetuity for LBV and other riparian species.
- BR-2** Construction activity within 500 feet of riparian habitat should not occur during the LBV nesting season, from April 1 through July 31. If construction activity is required within 500 feet of riparian habitat within Mill Creek during the nesting season, an experienced LBV biologist would be required to determine if any avian nests exist. If LBV nests are located, no construction activity shall be permitted that would subject the nest to noise higher than 60 dBA during the nesting season. The LBV biologist will act as the construction monitor and will be onsite during construction activity to monitor for any LBV within the vicinity of the site or nesting activity by any avian species. If no LBV or nesting activity occurs, then construction can continue.
- BR-3** The proposed Project shall avoid the use of invasive and non-native plant species identified by the California Invasive Plant Council (a listing of which is contained in Appendix D of the Draft EIR). The final landscape plans will be reviewed and verified by the City of Chino to ensure that invasive species will not be used. Maintenance of the landscape areas will include the removal of invasive plants that may establish through natural dispersal mechanisms.
- BR-4** A Pest/Turf Management Plan for common areas within the Project shall be prepared by the Applicant for review and approval by the City as part of required landscape plans to ensure that fertilizers and pesticides do not enter habitat areas.
- BR-5** No outdoor lighting within suitable LBV habitat shall be permitted. In addition, adjacent night lighting shall be reduced to the greatest extent practicable and designed with hoods or shields that reduce the amount of light spilling into the habitat.

- BR-6** No recreational sport fields or structures shall be permitted within 250 feet of riparian habitat suitable to LBV. A plan for use of the Open Space-Recreation designated areas on the Project site shall be prepared demonstrating to the City that intrusive noise, lighting, and motion into the occupied LBV habitat shall not occur. Intrusion into the Mill Creek habitat area by people and/or pets shall not be permitted. Signs shall be posted around the perimeter of the Mill Creek habitat area that people and their pets are not permitted entry.
- BR-7** All trails will be posted with signs that dogs must remain leashed.
- BR-8** Project residents having pet cats shall be encouraged through distribution of an informational flyer to have them remain indoors.

Level of Significance After Mitigation

Less than significant.

Impact 4.4-2:	The Project could result in adverse modification to least Bell's vireo Critical Habitat. [CEQA Biological Resources Threshold 4(a)]

Impact Analysis

The Project site includes a total of 56.5 acres of LBV designated Critical Habitat, as mapped by the USFWS. Of this total, 38.1 acres do not contain any suitable habitat for LBV due to the absence of riparian vegetation, which is considered a primary constituent element (PCE) for LBV. The remaining 18.4 acres of designated Critical Habitat provides suitable LBV habitat, but will be avoided and buffered. Riparian habitat will be created along the margins of a few of the Project lakes, which may become occupied by LBV in the future, establishing greater suitable habitat for LBV (a net gain of approximately 2.1 acres when the final phase of the Project is completed in 2019) than provided under the existing condition. Portions of the lake edges are to be used for creation of willow riparian and emergent marsh areas. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area (see Exhibits 3-8 and 4.4-3); Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.

During the process of obtaining a Flood Easement Exchange from USACE to develop areas below the current 566-foot elevation proposed for residential development. USACE may consult with the USFWS under Section 7 of the Endangered Species Act to ensure that the modification of designated Critical Habitat, as mapped by USFWS, does not affect the species. Since no PCEs are contained

within the 38.1 acres of Critical Habitat that will be modified, the USACE would be expected to issue a “No May Affect” determination. The USACE could also decide to issue a “No May Affect” determination without consulting USFWS if they feel sufficient evidence has been provided that no suitable habitat will be removed.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Impact 4.4-3:	The Project will result in adverse permanent impacts to BUOW nesting territories and suitable BUOW habitat. [CEQA Biological Resources Threshold 4(a)]

Impact Analysis

The following guidelines from the CDFG and the California Burrowing Owl Consortium (CBOC) were used to evaluate the impacts to BUOWs:

- a) Disturbance or harassment within 50 meters (approximately 160 feet) of occupied burrows;
- b) Destruction of burrows and burrow entrances. Burrows include structures such as culverts, concrete slabs and debris piles that provide shelter to BUOW; and
- c) Degradation of foraging habitat within 100 meters (approximately 325 feet) of occupied burrows.

Much of the foraging area for the BUOW consists of animal pens, wastewater treatment areas, and agricultural fields. While these areas do not represent native habitat, they nevertheless provide foraging areas for the BUOW.

Based on focused surveys, five BUOW nesting territories along with two unpaired single BUOWs occurred on or near the Project site in 2005, and two nesting BUOW territories along with four unpaired individuals occurred on or near the Project site in 2007 (Exhibit 4.4-2). Using 2005 survey results as an indication of the number of BUOWs that can be accommodated within onsite and immediately adjacent offsite areas, a total of five BUOW nesting territories will be adversely impacted. CDFG calls for provision of a minimum of 6.5 acres per territory of BUOW impacted. With a maximum five BUOW nesting territories potentially impacted, 32.5 acres (5 x 6.5 acres) of suitable habitat would need to be provided. Project implementation would result in the establishment of approximately 30 acres restored native grassland habitat. An additional 10.8 acres of debris basin habitat will be provided and planted with grassland vegetation, the perimeter slopes of which can be

installed with artificial BUOW burrows. These three debris basins would be located in the southwest, southeast, and eastern portions of the Project site. Sufficient acreage will be provided to meet the CDFG criteria. Additional mitigation is required to insure that Project impacts to BUOW are less than significant, however.

Level of Significance Before Mitigation

Potentially significant. [CEQA Biological Resources Threshold 4(a)]

Mitigation Measures

- BR-9** In order to avoid temporal loss of BUOW habitat, another conservation easement shall be established for the 30 acres of restored native grassland habitat, and deeded to an agency that provides land stewardship to ensure preservation in perpetuity. This should be done prior to the passive relocation of any BUOW within the Project footprint, and in conjunction with the conservation easement for the 22.9 acres of riparian habitat area along Mill Creek to be preserved (BR-1).
- BR-10** The Applicant shall provide to the City for review and approval as part of required landscape plans a planting plan to establish and manage appropriate vegetation for the three detention basins and perimeter slopes, prepared by a qualified raptor and/or restoration biologist.
- BR-11** To avoid direct harm to BUOWs, burrows occupied by BUOWs must be avoided by 75 meters during the nesting season (February to August) and by 50 meters outside of the nesting season (September to January). Occupied burrows should not be disturbed during the nesting season unless a qualified biologist approved by the CDFG verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- BR-12** If BUOWs must be moved away from the disturbance area, passive relocation techniques will be used. At least one or more weeks will be necessary to accomplish this to allow the BUOWs to acclimate to alternate burrows. Once all burrows on the Project site are confirmed to be absent of BUOWs, they will be systematically collapsed. New burrows shall be created (by installing artificial burrows at a ratio of 2:1 for every occupied burrow removed) on the grassland restoration area and the detention basins so that the BUOWs have alternate burrows to relocate. Where feasible, these burrows shall be built at least two weeks prior to the passive relocation effort. Prior to the passive relocation of the BUOW on the Project site, all BUOWs to be relocated shall be banded. Follow-up surveys to determine the fate of the passively relocated BUOWs shall be required to determine the success of the program.

- BR-13** A 30-day preconstruction survey for BUOW must be conducted so that all occupied burrows can be mapped and a strategy developed so that harm to BUOWs resulting from Project construction is avoided.
- BR-14** Prior to the passive relocation of any BUOWs within the Project footprint, a BUOW relocation and habitat management plan that incorporates the above mitigation measures shall be submitted and approved by the CDFG and the City of Chino.

Level of Significance After Mitigation

Less than significant.

Impact 4.4-4: The Project will result in adverse permanent impacts to California State Sensitive species.
[CEQA Biological Resources Threshold 4(a)]

Impact Analysis

A number of California State Sensitive species have been observed or have the potential to occur on the Project site as summarized in Table 4.4-4), including California horned lark and loggerhead shrike. Potential impacts to most California State Sensitive species are addressed through Project design and/or mitigation. Potential impacts to California horned lark would be considered less than significant as they are relatively abundant in the region and do not require specialized habitat. The permanent loss of nesting and foraging habitat for loggerhead shrike would be considered potentially significant on a local basis due to the continued loss of habitat and declining population trends for this species. The approximately 30-acre area on the eastern portion of the Project site that will be restored to a grassland community will provide suitable foraging habitat for loggerhead shrike.

Table 4.4-4: Potential Impacts to State Sensitive Wildlife Species

Species	Potential Impacts and Applicable Mitigation Measures
Two-striped garter snake (<i>Thamnophis hammondi</i>)	No impacts as riparian habitat within Mill Creek will be avoided.
Golden eagle (<i>Aquila chrysaetos</i>)	Impacts to foraging habitat are considered less than significant with implementation of Project features and/or mitigation measures. Nesting habitat is absent and no impacts will occur.
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	No impacts as they are not known to nest on site.
Great egret (<i>Ardea alba</i>)	No impacts as they are not known to nest on site.
Great blue heron (<i>Ardea herodias</i>)	No impacts as they are not known to nest on site.
Snowy egret (<i>Egretta thula</i>)	No impacts as they are not known to nest on site.

Table 4.4-4 (Cont.): Potential Impacts to State Sensitive Wildlife Species

Species	Potential Impacts and Applicable Mitigation Measures
Black-crowned night heron (<i>Nycticorax nycticorax</i>)	No impacts as they are not known to nest on site.
White-faced ibis (<i>Plegadis chihi</i>)	No impacts as they are not known to nest on site.
Long-eared owl (<i>Asio otus</i>)	Direct impacts to nesting or roosting individuals are less than significant as riparian habitat associated with Mill Creek will be avoided. Potential indirect impacts are less than significant with Project design and/or mitigation measures. Potential impacts to foraging individuals are less than significant with Project design and/or mitigation measures.
Ferruginous hawk (<i>Buteo regalis</i>)	Impacts to confirmed wintering individuals are considered less than significant with Project design and/or mitigation measures.
Burrowing owl (<i>Athene cunicularia hypugea</i>)	Five nesting territories will be permanently impacted. With Project design and/or mitigation measures, impacts are considered less than significant. At the cumulative level, impacts are not considered cumulatively significant based on replacement of Candidate Conservation/Relocation Area acreage through an Amendment to the 2003 Resources Management Plan to include the Edgewater Project.
Sharp-shinned hawk (<i>Accipiter striatus</i>)	No impacts as they are not known to nest on site.
Northern harrier (<i>Circus cyaneus</i>)	Impacts to nesting individuals are considered less than significant as they have not been confirmed to nest on site.
Prairie falcon (<i>Falco mexicanus</i>)	Impacts to confirmed wintering individuals are considered less than significant with Project design and/or mitigation measures.
Merlin (<i>Falco columbarius</i>)	Impacts to confirmed wintering individuals are considered less than significant with Project design and/or mitigation measures.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Impacts to potential nesting and foraging individuals would be considered less than significant with Project design and/or mitigation measures.
California horned lark (<i>Eremophila alpestris actia</i>)	Impacts to potential nesting and foraging individuals are considered less than significant due to the relative abundance of this species within the region. Implementation of Project mitigation measure will avoid potential significant impacts to nests.
Yellow-breasted chat (<i>Icteria virens</i>)	Direct impacts to nesting individuals are less than significant as riparian habitat associated with Mill Creek will be avoided. Potential indirect impacts are less than significant with Project mitigation measures.
Yellow warbler (<i>Dendroica petechia</i>)	Direct impacts to nesting individuals are less than significant as riparian habitat associated with Mill Creek will be avoided. Potential indirect impacts are less than significant with Project mitigation measures.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.
California mastiff bat (<i>Eumops perotis californicus</i>)	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.

Table 4.4-4 (Cont.): Potential Impacts to State Sensitive Wildlife Species

Species	Potential Impacts and Applicable Mitigation Measures
Yuma myotis (<i>Myotis yumanensis</i>)	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	Impacts are considered less than significant as sage scrub habitat is absent from the Project site and a substantial population is not expected to occur.
Western spadefoot (<i>Scaphiopus hammondi</i>)	Impacts to this species are considered less than significant with Project design and/or mitigation measures, which will create suitable habitat that may become occupied.

Level of Significance Before Mitigation

Potentially significant. [CEQA Biological Resources Threshold 4(a)]

Mitigation Measures

BR-15 To compensate for the loss of suitable nesting habitat for loggerhead shrike, open space areas associated with the Project site shall be enhanced with native shrubs suitable as nest sites. This could include the planting of shrubby species such as Mexican elderberry.

Level of Significance After Mitigation

Less than significant.

Impact 4.4-5: The Project could result in adverse permanent impacts to raptor foraging habitat. [CEQA Biological Resources Threshold 4(a)]

Impact Analysis

A number of special-status raptor species have been observed foraging on the Project site, including white-tailed kite, BUOW, ferruginous hawk, merlin, northern harrier, and prairie falcon. These species will be adversely impacted by removing suitable foraging habitat. Currently, there is approximately 144.5 acres of agriculture/disc'd field, which is suitable foraging habitat for BUOW. In addition, there is a total of 56.24 acres comprised of pasture, riverine wash, open water/stock ponds, open water/Mill Creek, southern willow forest, and southern willow scrub, totaling 200.74 acres that serve as raptor foraging habitat (GLA 2007). Approximately 184 acres of the 200.74 acres of raptor foraging habitat will be impacted by the Project. To compensate for the loss of raptor foraging habitat, approximately 30 acres on the eastern portion of the Project site will be restored to a grassland community during Project Phase 1 and managed to provide raptor foraging habitat, in addition to the offsite Candidate Conservation and Relocation Areas for BUOW. The detention basins will provide an additional 10.8 acres of foraging habitat, totaling 40.8 acres of restored foraging habitat. In addition, the Project will conserve the 22.9 acres of riparian habitat associated with Mill Creek, which provides suitable foraging habitat for species such as Cooper's hawk, merlin,

and sharp-shinned hawk. Habitat enhancement at lake edges will also occur. Portions of the lake edges are to be used for creation of willow riparian and emergent marsh areas. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area (see Exhibits 3-8 and 4.4-3); Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.

When creation/enhancement of willow riparian areas is complete and it matures sufficiently, it will provide foraging areas for Cooper's hawk, sharp-shinned hawk, and merlin. The marsh areas will provide potential foraging areas for northern harrier and prairie falcon. The open water and associated waterfowl would provide foraging opportunities for the peregrine falcon.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Impact 4.4-6:	The Project has the potential to adversely impact special-status bird species nesting on the project site. [CEQA Biological Resources Threshold 4(a)]

Impact Analysis

A number of special-status bird species, as well as more common bird species, have the potential to nest on the project site, including loggerhead shrike, and California horned lark. The Project has the potential to impact nests within proposed development areas, and may disturb nesting in adjacent potential habitat areas.

Level of Significance Before Mitigation

Potentially significant. [CEQA Biological Resources Threshold 4(a)]

Mitigation Measures

BR-16 Removal of vegetation or other potential nesting bird habitat shall be conducted outside of the avian nesting season (February through August). If removal of vegetation occurs during the avian nesting season, a preconstruction nesting bird survey shall be conducted no more than 7 days prior to this activity. If birds are found to be nesting within or near the impact area, a buffer where no construction

activities would occur would need to be established by a qualified biologist. This biologist would also determine if the nest is not currently active or when the nest is no longer active, at which time construction could resume.

Level of Significance After Mitigation

Less than significant.

Sensitive Natural Communities

Impact 4.4-7:	The Project will not impact any sensitive natural communities. [CEQA Biological Resources Threshold 4(b)]

Impact Analysis

No sensitive plant communities will be impacted by the proposed Project. All riparian habitat associated with Mill Creek will be avoided.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Federally Protected Wetlands

Impact 4.4-8:	The Project will not impact federally protected wetlands or other jurisdictional waters. [CEQA Biological Resources Threshold 4(c)]

Impact Analysis

No federally protected wetlands or other jurisdictional waters overlap the areas to be disturbed by development of the Project site.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Wildlife Corridors and Nursery Sites

Impact 4.4-9:	The Project could potentially interfere substantially with the movement of wildlife species, but will not disrupt any nursery sites. [CEQA Biological Resources Threshold 4(d)]

Impact Analysis

Approximately 238 acres within the Project site are currently below the 566' elevation, development of which would constrain east-west movement through this portion of The Preserve. Movement by BUOW could be impeded as they try to disperse between upstream portions of Mill Creek (also known as Cucamonga Creek) and the southern portion of The Preserve. Development of the proposed Project would also eliminate the existing ponds that provide stop-over habitat for a number of swallow, shorebird, and waterfowl species. Project implementation also has the potential to disrupt migrant raptor species that utilize the Project site as a wintering area.

The Project will restore approximately 30 acres within the eastern portion of the Project site to grassland habitat, which will facilitate movement of BUOW between Mill Creek and the southern portion of The Preserve. It will also provide high quality foraging opportunities for migratory raptor species. Detention basins will also be created that may be used by migrating wildlife. The Project will also create willow riparian and emergent marsh habitat along the constructed lakes' margins, as well as provide open water habitat. This will create suitable stopover habitat for swallow, shorebird, and waterfowl species, as well as foraging habitat for migrant raptor species that utilize the Project site as a wintering area when construction of this enhancement is completed.

No impacts will occur to any known nursery sites.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Local Policies or Ordinances Protecting Biological Resources

Impact 4.4-10:	The Project would conflict with local policies or ordinances protecting biological resources. [CEQA Biological Resources Threshold 4(e)]

Impact Analysis

City of Chino General Plan Conservation/Open Space Element goals and policies regarding the preservation of City plant and wildlife resources are identified in Table 4.4-2 earlier in this EIR section. The Preserve RMP provides a detailed methodology and framework for implementation of Final Preserve EIR mitigation measures for biological resources. The proposed Project, through

Project design and incorporation of specified Biological Resources Mitigation Measures, strives to meet City goals and policies and RMP provisions protecting biological resources. Significant impacts to biological resources nevertheless remain. They are the Project impact of a loss of 138.44 acres of open land below the 566-foot elevation line within The Preserve, and the cumulative impact of raptor foraging habitat loss in the Prado Basin area (see Impact 4.4-12 at the end of this EIR Section).

Level of Significance Before Mitigation

Significant. [CEQA Biological Resources Threshold 4(e)]

Mitigation Measures

Implementation of Project Mitigation Measures BR-1 through BR-17.

BR-17 Prior to the issuance of any grading permits, the Project Proponent shall be required to pay impact fees for the perpetual management and maintenance of all biological resources protected by conservation easements. These resources include, but are not limited to, the 22.9 acres that are to be avoided within Mill Creek, as described in Edgewater Mitigation Measure BR-1, and the restored native grassland habitat, as described in Edgewater Mitigation Measure BR-9. A conservancy selected by the City shall, in collaboration with the City, determine the amount of these fees and manage the biological resources in these areas in perpetuity.

Level of Significance After Mitigation

Significant. [CEQA Biological Resources Threshold 4(e)]

Conservation Plans

Impact 4.4-11:	Development of the Project site as proposed will conflict with an approved Resource Management Plan and The Preserve Final EIR Biological Resource mitigation measures. [CEQA Biological Resources Threshold 4(f)]

Impact Analysis

Loss of a Portion of a Candidate Conservation/Relocation Area

Final EIR and RMP Mitigation Measure B-3 requires a 300-acre conservation area to be established for the purposes of providing high quality wildlife habitat. Although a 322-acre site was acquired for conservation in the City of Chino Hills, now part of Chino Hills State Park, this site does not provide suitable burrowing owl (BUOW) habitat. The 2003 RMP states that “a burrowing owl Candidate Relocation Area will be established only if the 300-acre Conservation Area is not situated or does not provide the requisite habitat elements to accommodate relocated burrowing owls” (RMP, p. 4-25). Four Candidate Conservation/Relocation Areas with high-quality BUOW habitat were identified in the 2003 RMP. One Candidate Conservation/Relocation Area, containing 54 constructed BUOW burrows, is located northwest of the Project site. Specifically, the area is located south of Kimball Avenue, east of Rincon Meadows Avenue, and west of Mill Creek Avenue, and is known as Drainage

Area B. The remaining three Candidate Conservation/Relocation Areas are in the vicinity of the Project site and portions of two of these three areas are contained within the Edgewater Project site (totaling approximately 177 acres, see Exhibit 4.4-4). By withdrawing a portion of two Candidate Conservation/Relocation Areas through Project implementation, development of the Project site as proposed would reduce the amount of land available for additional constructed BUOW burrows. Project design and implementation of mitigation measures will ensure that BUOW habitat to mitigate Project impacts is created and protected. Suitable acreage to replace property within the Project site now contained within two Candidate Conservation/Relocation Areas have been identified within areas outside the Project site through the Amendment to the 2003 Resources Management Plan to include the Edgewater Project. In addition to any acreage provided within future Conservation/Relocation Areas, approximately 30 acres on the eastern portion of the Project site will be restored to a grassland community to provide raptor foraging habitat.

Loss of Open Land Below the 566-foot Elevation

The Final EIR and RMP Mitigation Measure B-1 (Provision 1) designated open space and agriculture uses for the area below the 566' dam inundation line (with the exception of a single 55-acre parcel that extends above Pine Avenue along the western boundary of The Preserve). Current land use designations below the 566' dam inundation line include Open Space-Recreational (OS-R), Agricultural (AG), Agricultural/Open Space-Natural (AG/OS-N), and Open Space Natural (OS-N). A General Plan and Area Plan Amendment along with a Specific Plan Amendment are required to permit the proposed Project uses within the Edgewater site. By amending the General Plan and zoning designations to permit urban uses on the Edgewater site (representing a net increase in urban uses of 138.44 acres within the Edgewater Project site), the first provision of Final EIR and RMP Mitigation Measure B-1 would no longer be applicable.

Relocation of the Urban Buffer/Transition Area

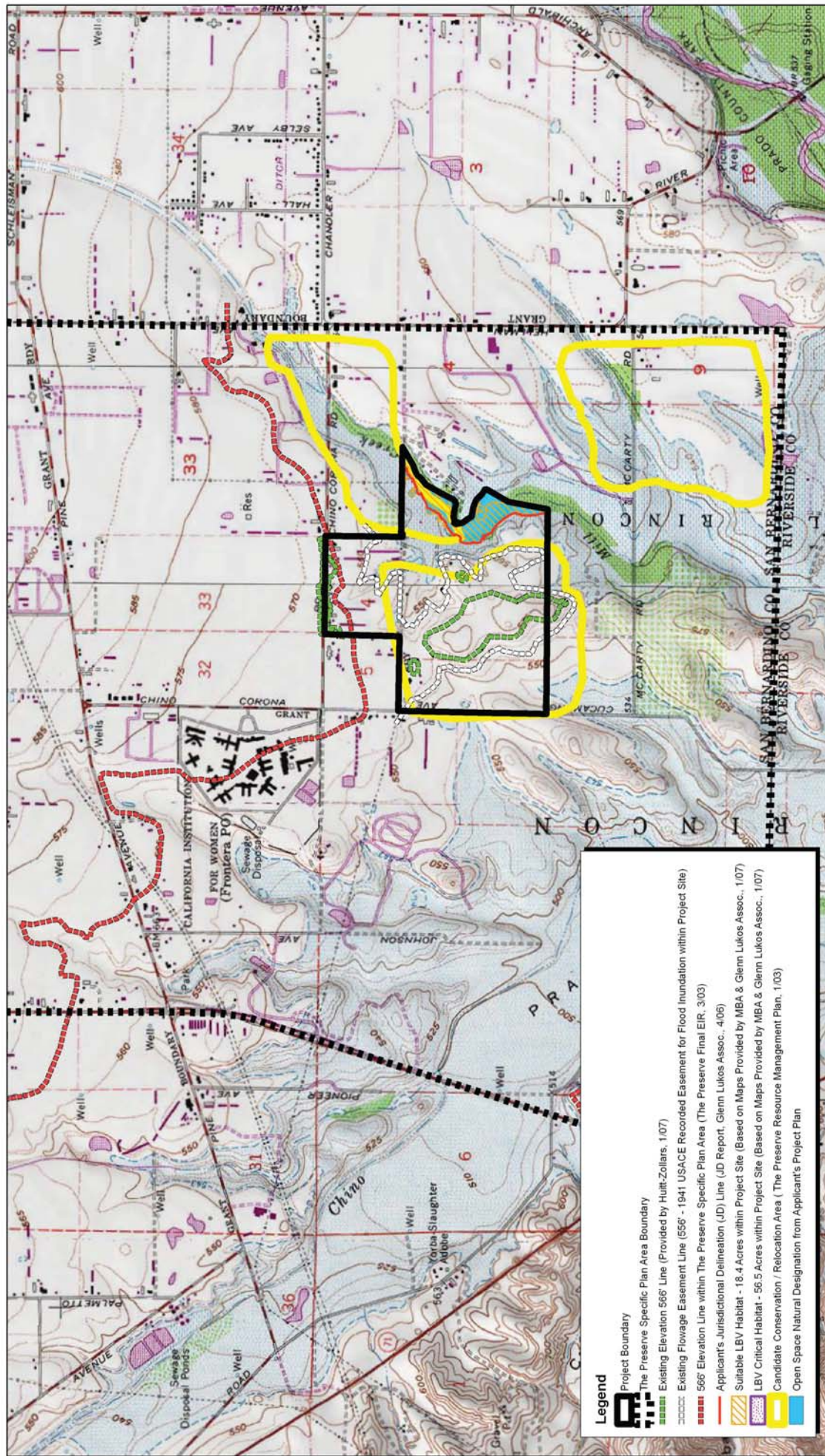
The intent of the urban buffer/transition area is to limit urban intrusion into areas with habitat value that are below the 566' dam inundation line. The buffer is designed to provide for limited access to habitat areas and would include provisions for the logical transition between urban structures/uses and habitat areas. Implementation of the proposed Project, increasing the acreage above the 566' line from 35 acres in the existing condition to 141 acres in the developed condition, will result in the relocation of the urban buffer/transition area in order to separate proposed Project urban structures/uses from habitat areas within and surrounding the Project site.

Level of Significance Before Mitigation

Potentially significant (for impacts on City's ability to implement 2003 Final EIR and RMP mitigation measures). [CEQA Biological Resources Threshold 4(f)]

Mitigation Measures

Implementation of Project Mitigation Measures BR-1 through BR-17.



Source: TOPOI USGS Corona North (1978) 7.5' DRG.



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Exhibit 4.4-4 The Preserve RMP Candidate Conservation and Relocation Areas

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Level of Significance After Mitigation

Significant. [CEQA Biological Resources Threshold 4(f)]

Cumulative Impacts

Impact 4.4-12:	The Project will contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area.

Impact Analysis

A separate and independent regional analysis of impacts to raptor foraging habitat by PCR Services Corporation (2002) was conducted as part of the cumulative analysis in The Preserve 2003 Final EIR. This analysis found that the loss of 1,256.1 acres of foraging habitat within The Preserve was an insignificant impact at the project level to the raptor populations within the Prado Basin and Chino Hills, but significant when considered cumulatively. The Edgewater Project further contributes to this cumulative loss of raptor foraging habitat.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

Implement Project Mitigation Measures BR-1 through BR-17.

Level of Significance After Mitigation

Significant.

4.4.9 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Final EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.4-5 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.4-5: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Biological Resources

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
BR-1 through BR-17.	B-1. Zoning and Land Use Regulation.	Edgewater mitigation compensates for impacts at the species level, although loss of open land below the 566' elevation remains significant.

Table 4.4-5 (Cont.): Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Biological Resources

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
Project biological assessment and jurisdictional delineation reports have been prepared.	B-2. Required Biological Studies.	Project has complied. No conflict between The Preserve EIR and Project mitigation.
BR-9 through BR-14. Burrowing Owl Conservation.	B-3. Resources Management Plan: Provision 1. 300-acre Conservation Area	Edgewater Project reduces the ability for the City to implement mitigation measures from the Preserve EIR and RMP. Acreage within the Project site now contained within two of the Candidate Conservation/Relocation Areas (see Exhibit 4.4-4), totaling approximately 177 acres, will be replaced with acreage outside the Project site through an Amendment to the 2003 Resources Management Plan to include the Edgewater Project. Area retained as open space within proposed Project would contain 22.9 acres of riparian habitat; approximately 30.0 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of suitable LBV habitat.
BR-17. Conservation Easements and Conservancy	Provision 10. Administration and Monitoring	No conflict.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.5 - Cultural Resources

4.5.1 - Introduction

This section describes the existing cultural resources and paleontological resources on and near the Edgewater Communities Project site, and the potential effects from Project implementation. In this Draft EIR section only, the term “Project area” is used to refer to the “Project site” in an effort to avoid confusion with the use of “site” in reference to defined locations containing cultural resources.

Descriptions and analysis in this section are based on information contained in the Phase I Cultural Survey Report and Paleontological Resource Assessment (MBA 2007) and the Phase II Cultural Resources Testing and Evaluation Report (MBA 2007). Both reports are included in this EIR as Appendix E, Cultural Resources Assessments. Cultural Resource research references contained within the text in this Cultural Resource Draft EIR section are primarily taken from the two cultural resource technical reports contained in Appendix E and are fully detailed in the Reference sections of these two technical reports. These research references are not repeated in the References section of this Draft EIR. Only those references not drawn from either of the two Project Cultural Resource technical reports are contained within the References section of this Draft EIR.

The analysis in this section has been prepared in accordance with Section §15064.5 of the State CEQA Guidelines, which considers potential impacts to prehistoric, historic and paleontological resources.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on cultural resources were contained in letters submitted to the City.

4.5.2 - Existing Conditions

Natural Setting

The Project area lies upon Santa Ana River and Chino Creek alluvium, a depositional stratum that may be several hundred feet thick. Most of the geological features in this area have been formed by earthquake faults and flooding, but the Chino fault (an extension of the larger Elsinore fault), which is located along Temescal Canyon and the eastern edge of the Chino Hills, has been relatively inactive in recent geologic times (Southern California Earthquake Center 2007). Most of the topsoil in the Project area was loamy and no bedrock could be observed. According to Scott (2006), the Project lies upon thick deposits of Pleistocene older alluvial fan material. Such strata may contain fossils beginning at shallow depths. Younger Holocene-era deposits overlie the Pleistocene deposits in the Mill Creek channel only.

The Project site consists of several small parcels located along Chino Corona Road that have supported dairies for many years. Project area properties located south of the dairies consist of overgrown riparian land along the banks of Mill Creek, flat areas grazed by cattle slightly west of

Mill Creek, and about 150 acres of tilled land east of Cucamonga Avenue. The Project site is located below and above the 566' high water mark of the Prado Dam Reservoir.

Historical research has shown that prior to about 1950, Mill Creek was a small drainage associated with a set of cienegas (springs or marshy areas) located about 1.5 miles northeast of the Project area. When Mill Creek was modified to carry flood control waters emanating from Cucamonga Creek as a result of flood control construction, the creek channel was enlarged through erosion such that it now can carry runoff from many distant miles. Water flows through the channel continuously; some of this originates 10 miles to the north in the San Bernardino Mountains.

Historical Background

A detailed description of the prehistory of southern California can be found in ethnographic studies, mission records and major published sources including Kroeber (1925), Wallace (1955), Warren (1968), Heizer (1978), Moratto (1984), and Chartkoff and Chartkoff (1984). Fagan (2003), Moratto and Chartkoff and Chartkoff provide recent overviews of California archaeology in general and review the history of the coastal regions in southern California. The following provides a brief overview of the prehistory and history of the City of Chino.

Early Period (Before 6000 B.C.)

Beginning with the first human presence in California (dated to about 11,000 years ago), prehistoric artifacts, and cultural activities appear to represent a big-game hunting tradition. Much has been made of the few sites that exist in contemporary studies (e.g. Wallace 1978). Unfortunately, very few sites from the Early Period exist, especially in inland areas. Of the Early Period sites that have been excavated and dated, most exhibit a refuse assemblage suggesting short-term occupations. Such sites have been detected in caves and around fluvial lakes fed by streams that existed near the end of the last glaciation. Chipped stone tools at these sites are clearly ancient, are not made later in the Prehistoric period and reflect a specialized tool kit used by hunters. Large-stemmed bifaces are common. Millingstones and dart point are not part of the Early Period toolkit.

Millingstone Period (6000 to 3000 B.C.)

The onset of the Millingstone Period appears to correspond with an interval of warm and dry weather known as the Altithermal (Wallace 1978). Artifact assemblages begin to reflect an emphasis on plant foods and foraging subsistence systems because grinding tools are found at these sites. For inland locales, it has been assumed that exploitation of grass seeds formed a primary subsistence activity. Artifact assemblages include choppers and scraper planes, but there are a reduced number of large bifaces in the excavated assemblages. Sites are occupied for a much greater amount of time than Early Period sites.

Intermediate Period (3000 B.C. to A.D. 500)

Dating between roughly 3000 B.C. and A.D. 500, the Intermediate Period represents a slow technological transition likely related to the slowly drying and warming climate. Site artifact

assemblages retain many attributes of the Millingstone Period. Technologically speaking, these sites are difficult to distinguish from earlier sites in the absence of radiometric dates. Additionally, these sites generally contain a reduced number large-stemmed or notched projectile points but with an increase in portable mortars and pestles. The lack of large points combined with the mortars and pestles suggest that the aboriginal populations may have harvested, processed, and consumed acorns and other seeds over and above hunting.

Late Prehistoric Period (A.D. 500 to A.D. 1769)

Extending from about A.D. 500 to Spanish contact in A.D. 1769, the Late Prehistoric Period reflects an increased sophistication and diversity in technology. Village sites are common. Late assemblages characteristically contain small projectile or dart points, which imply the use of the bow and arrow. In addition, assemblages include steatite bowls, asphaltum artifacts, grave goods, and elaborate shell ornaments. Use of bedrock milling stations is purported to have been widespread during this period, as it was in the previous one. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Pottery, previously traded into the area, is made locally during the latest stage of this Period and is of simple construction technology (Cameron 1999).

Pre-Contact and Post-Contact Gabrieliño

The Project area is, technically speaking, located within the southeastern section of Gabrieliño tribal territory. The Juaneños lay to the southwest and the Luiseños to the east. Aliso Creek is thought to represent a southern ethnographic border between the Juaneño and the Gabrieliño (Kroeber 1925), but the border was derived from previous researchers' work and old maps.

The first modern social analyses of Gabrieliño culture took place in the early part of the twentieth century (Kroeber 1925), but by that time, acculturation and disease had reduced their numbers to near extinction. Nonetheless, the early ethnographers viewed the Gabrieliño as a chief-oriented society of semi-sedentary hunter-gatherers. When Spanish explorers and missionaries first visited the southern coastal areas of California, the indigenous inhabitants of the Los Angeles County area and far southwestern portion of San Bernardino County were given the Spanish name "Gabrieliño."

At the time of European contact, the Gabrieliño inhabited about 50 to 100 permanent villages in fertile lowlands along streams and rivers and in sheltered areas along the coast. The larger permanent villages most likely had populations averaging 50 to 200 persons. Sedentary villages also had at varying distances smaller satellite villages that remained connected through economic, religious, and social ties (Bean and Smith 1978). Gabrieliño villages contained four basic types of structures. Houses were circular and domed, made of tule mats, fern, or reeds (Kroeber 1925, Bean and Smith 1978). The Gabrieliño sweathouses were small, circular earth covered buildings. Villages may have included menstrual huts and open-air ceremonial structures made with willows inserted in a wicker fashion among stakes (Bean and Smith 1978).

The Gabrieleño had a rich and varied material culture (McCawley 1996). Technological and artistic items included shell set in asphaltum, carvings, painting, an extensive steatite industry, baskets, and a wide range of stone, shell, and bone objects that were both utilitarian and decorative. Gabrieleño subsistence was based on a composite hunting and gathering strategy that included large and small land animals, sea mammals, river and ocean fish, and a variety of vegetal resources. Generally, Gabrieleño settlements were created at the intersection of several ecozones: prairies with foothills, floodplains and river courses, and on the edges of marshes and seashores. The majority of the population drifted throughout the year as families to temporary hillside or coastal camps, returning to the central location on ritual occasions or when resources were low and it was necessary to live on stored foods. Offshore fishing was accomplished from boats made of pine planks sewn together and sealed with asphaltum or bitumen. Much of the fishing, shellfish harvesting, and fowling took place along the ocean shoreline or along freshwater courses. Sea mammals were captured with harpoons, spears, and clubs.

Historic Era (Post 1769)

Father Junipero Serra was sent to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population and create a foundation for colonization of the region. Located between the previously established presidios in Monterey and San Diego, Serra had military assistance in his quest and the San Bernardino area came under early control of Spanish soldier Pedro Fages and Father Francisco Garcés. In 1819, Rancho San Bernardino was established. This followed a decision by the heads of the mission system to expand their agricultural holdings into the interior and later establish a chain of additional Missions in the desert interior (Lech 2004). The Project area is located within the old rancho, which was subdivided after the Spanish were removed.

The Mexican Period (1821 to 1848)

After years of fighting, Mexico achieved its independence from Spain in 1821 and Alta California became the northern frontier of the State of Mexico. The Mission padres were forced to swear allegiance to Mexico in 1822. Secularization of the missions took place over the next decade and the former mission lands were transferred to the large Mexican families that had settled in the area.

Rancho El Rincon was part of a large tract of land granted to Juan Bandini in the 1830s. After the end of political restlessness in 1837, Governor Alvarado made Bandini administrator of the San Gabriel Mission, and he was granted the Jurupa, Rincon, and Cajon de Muscapiabe ranchos, besides land at San Juan Capistrano. After a few years of ownership, financial losses forced Bandini to sell most of his properties, and he died in 1859. Bernardo Yorba purchased a portion of his properties, later called the Rancho El Rincon, which lay in bottomlands adjacent to Rancho Santa Ana del Chino (north) and Rancho La Sierra (southeast). After years of litigation with the California Land Commission, the Rancho El Rincon was officially granted to Yorba, son of Jose Antonio, in October 1858. Yorba died a month later, willing his numerous properties to his descendants. One of his sons, Raimundo, built the first house at the Yorba-Slaughter site in 1851. The structure burned and a second structure was built on the site, which survives to this day. Fenton Slaughter bought the

property in 1868 and the small town of Rincon grew near the junction of the Santa Ana River and Chino Creek. Julia Slaughter Fuqua began restoration on the Yorba-Slaughter Adobe in 1928. It was listed as a California Landmark three years later.

Historic Rincon and South Chino

The Yorba-Slaughter Adobe, built by Indian laborers who lived in a village east of the property, was originally known as “Buena Vista.” The road at the foot of the hill was a regularly used part of the Fort Yuma to Los Angeles Road, and the Yorba Adobe was an optional stage stop for the Butterfield Overland Mail from 1858 to the start of the Civil War. The Rancho was prosperous, and Raimundo Yorba was the most affluent of the landowners in the Prado Basin region.

The adobe and property were purchased in 1868 by Fenton M. Slaughter, a Virginian and a veteran of the Mexican War of 1846. Slaughter raised cattle, introduced the Merino sheep to California, bred fine racehorses and mules, and raised grain and grapes. The adobe became the center of a small settlement called “Rincon.” A post office was established in 1870 (probably in the adobe itself); a general store, a saloon, a blacksmith shop, a dairy, and the Vine Slope winery were established by 1879. Fenton Slaughter was an active and influential political force, serving in the state legislature in the early 1870s and as a San Bernardino County Supervisor from 1885-1890.

Laid out by Richard Gird, post-statehood owner of the Rancho Santa Ana del Chino (in 1887), the Town of Chino was created in response to California’s land boom of the late 1880s. The history of Chino, neighboring towns, and southwestern San Bernardino County has been examined by several local authors (Schuiling 1984; Galvin 2002; Bricker and Jertberg 1994). The following historic timeline has been derived from these publications.

In 1881, former miner Richard Gird bought the Rancho Santa Ana del Chino and the Chino Addition from a mortgage company that had taken title from the trust of Isaac Williams’ daughter, Francesca. Williams was one of the original Rancho owners who had taken possession of the land after California became a State. The Rancho was 46,000 acres in size, and the early homesteaders dug artesian wells near Gird’s town plat that could provide water for crops without pumping. Gird also created, with State help, an agricultural experimental station on his land that operated for many years. Gird then began experimenting with various crops to determine types that could be grown commercially. Sugar beets were one of those crops. In about 1886, Gird built the narrow gauge Chino Valley Railroad, which was then abandoned when the Chino Valley Sugar Beet factory was built. The Southern Pacific replaced the narrow gauge with a spur linking with the main RR line in Ontario (Brown 2005).

In 1887, a boom in southern California land speculation began. Gird subdivided his Rancho and put up about half of the acreage for sale in small lots and laid out the 640-acre Town of Chino plat. Gird found that sugar beets did particularly well in the more southern parts of his property: in damp bottomland located directly over an aquifer (Dumke 1993). This, combined with escalating land

prices, convinced Gird that sugar beet crops would be successful for tenant farmers if and only if a local processing plant could be constructed. Gird began growing acres of beets experimentally at his station in 1888 (Lehman 1969).

In 1894, Gird was forced to sell the Rancho Santa Ana del Chino to Charles Phillips of San Luis Obispo for \$1.6 million to settle his debts (Brown 2005). Phillips resold the land to an English industrial consortium. The land was eventually subdivided and sold to local farmers, completing the transactions in 1899. Beginning about 1915, other crops such as walnuts and fruit (e.g. apples and pears) were being grown in the Chino area, allowing for future conversion to such crops by the beet farmers. The bottomlands of the former Rancho del Chino could be used for alfalfa and hay for stock raising and dairies instead of sugar beets. Citrus groves were not planted in the area because the ground in Chino was “heavy,” lower in altitude and generally colder compared to lands near the mountains, such as those in Highgrove, Corona, and Upland. It is possible that the lands in the Project area were used to grow sugar beets for many years and then converted to pasture or alfalfa once the Chino Sugar Beet factory closed in 1917-1918.

Prado (Rincon), a town once located near the Prado Dam, began as a crossroads agricultural community in the late 1800s. The town exhibited numerous structures and 200 townspeople in the early part of the last century (Stern 2005), but it lay near the mouth of the Santa Ana River canyon, and Orange County groups had been lobbying for construction of a dam since the 1920s. After the March 1938 floods devastated Orange County, that process was accelerated. In mid-August 1939, Army engineers began placing rock for the \$7,000,000 dam and by 1941, the dam was finished. Included in the initial construction plans was a “take” of the Mill Creek watershed such that waters from Cucamonga Creek could eventually flow unimpeded to the Santa Ana River. By 1953, aerial photographs show that Cucamonga Creek water was being diverted into the old channel of Mill Creek and thence to the Prado Dam Reservoir. Most of the properties that form the lower section of the Cucamonga Creek flood control channel were acquired after 1945 and the channel was lined after that year. The concrete lining ceases about one mile northeast of the Project area.

Project Area Historic Land Ownership

According to Langenwalter and Brock (1984), the McCarty family purchased land just east of the Rancho El Rincon in 1878, homesteading the property and eventually acquiring up to 1000 acres. It is likely that given the location of the original McCarty property at the corner of Hellman and McCarty, the Project area would have been owned or plowed by the McCarty clan. Given that the “Fuqua Ditch” separates the original McCarty property from the Project area, it is very likely that just a few families lived in this area in the late 1800s, homesteading and farming lands that were generally free of flooding. General Land Office (GLO) records for this area showed that Isaac Williams had patented Section 4 on April 29, 1869.

The McClean family owned the southern half of the Project area for many years, probably back into the 1950s, while the John Rodriguez family owned the 52 acres along Chino Corona Road at the same

time. Both properties were acquired by the Stueve Brothers in the late 1990s, who continue to lease the property to the onsite dairy operation to this day. Dairies were not common in the south Chino area until about 1950, so it is likely that the lands were grazed or plowed for feed crops prior to that time.

The Stueve brothers—Ed, Harold, and Elmer—founded Alta Dena Dairy in Monrovia in 1945 with 61 milk cows and two bulls. In 1950, the family purchased a much larger operation in Chino. The dairy became certified for raw milk production in 1953 and grew rapidly. By the 1980s, the dairy milked over 8,000 cows daily and owned 18,000 animals. The Project area was part of the Alta Dena dairy beginning in the 1980s.

Cultural Resources Inventory and Survey

A San Bernardino County Museum Archaeological Information Center (AIC) file search showed that several cultural resources were previously reported as being in the Project area and that the last survey on the property took place more than 25 years ago. A Phase 1 Cultural Resource Survey was therefore required. The survey team consisted of MBA Senior Archaeologist Michael Dice, M.A., MBA archaeologist Jay Keasling and MBA Staff member Carmen Hernandez. Staff examined the Project area on October 25 and 26, 2006 and again on May 6, 2007. The October 2006 visits were devoted to formal transect surveys, while the May 2007 visit was devoted to site recordation. Two prehistoric artifacts were found at site CA-SBR-12572 in October 2006. Recent plowing uncovered a third prehistoric artifact at the same site in May 2007. Historic aerial photographs were purchased in order to correlate structures on the ground with those seen in the air.

Table 4.5-1 below lists the cultural resources identified within the Project area during the background research and survey stage of analysis. The initial background analysis showed that there were eight individual cultural resource sites plotted inside the Project area. Seven of these could not be observed during the survey and may be buried or destroyed by later historic development. The list below contains sites known as “pending sites,” a term unique to the AIC. The term “pending” refers to historic cultural resources that are known from written or visual records, but have not yet been identified in the field. Such sites may be buried beneath tilled soil that, in the case of the Edgewater Communities Project, would be removed during construction.

Five new sites (P36-13391, P36-13408, P36-13409, P36-13410, CA-SBR-12572) were identified during the MBA Phase I survey (MBA 2007). Four of the five sites were historical structural elements associated with dairying and agriculture on the property. The fifth, prehistoric site CA-SBR-12572, was located in the south-central portion of the Project area. The surface manifestations of this site were recorded and subsurface testing was required. Another new site (CA-SBR-12613H) was detected during the Phase II assessment (MBA 2007) and was found to be not significant. This site is not included in Table 4.5-1 since it was found after this Table was first compiled.

AIC research showed that seven “pending” historic archaeological sites were located in the Project area. Only one of these was relocated during the survey (CA-SBR-12753H), while the rest were buried or otherwise obscured. MBA recommended that certain additional mitigative work to the noted cultural resources take place before the Draft EIR was finalized. These efforts were completed during the Phase II assessment (MBA 2007).

Table 4.5-1: Edgewater Communities’ Historic and Prehistoric Cultural Resources, Post-Survey

Site #	Type	Recommendation
Sites Plotted at the AIC		
CA-SBR-12573H (Pending P871-19H)	The Fuqua Ditch	Recordation and minimal archaeological testing to determine width and depth (completed during Phase II assessment)
P (Pending) 871-8H	Remington Ranch House: elements of this site may spill onto the Edgewater Communities project area.	Examine artifacts during recordation of Fuqua Ditch
P (Pending) 871-9H	Former house found on old topographic maps, now demolished. Subsurface remains may be found. Located east of the area of EL-2.	Watch for foundation remnants during monitoring
P (Pending) 871-10H	Former house found on old topographic maps, now demolished. Subsurface remains may be found in the area of EL-2.	Watch for foundation remnants during monitoring
P (Pending) 871-11H	Former barn located about 100 feet northeast of P871-8H. Has been demolished (as discussed by Langenwalter and Brock [1985]).	Cannot be relocated. No additional work proposed.
P (Pending) 871-12H	Chino Valley Grist Mill (built 1875).	Watch location during monitoring
P (Pending) 871-16H	The Mayhew House, built around 1866. Demolished prior to 1933.	Watch location during monitoring
P (Pending) 871-22H	Mary F. Race property. Discussed by Swanson 1989. The original buildings possibly replaced by the dairy at 8351 Chino-Corona Road or remodeling may have taken place.	Watch location during monitoring
Sites Discovered During the Survey		
P#36-13408	Older corral located near P871-10H	Historical significance determination required
P#36-13409	Hilltop residence and barn	Historical significance determination required
P#36-13391	Farm outbuilding complex with several structures	Historical significance determination required
P#36-13410	Two houses on one parcel at 8121 and 8131 Chino-Corona Road	Historical significance determination required

Table 4.5-1 (Cont.): Edgewater Communities' Historic and Prehistoric Cultural Resources, Post-Survey

Site #	Type	Recommendation
CA-SBR-12572	Prehistoric millingstone artifact cluster	Phase II Archaeological significance determination required
Source: Michael Brandman Associates, 2007.		

Site P#36-13408 is a historic corral complex that is currently being used by local ranchers. The complex may have been constructed more than 45 years ago possibly while site P871-10H was occupied. The P871-10H house may be associated with the corral. This house was identified on a 1936 aerial photograph but was not located on a 1953 aerial photograph, suggesting it had been removed after 1936. The P871-10H house foundation may be buried below the modern ground surface.

Site P#36-13409 consists of an existing occupied house and barn atop a knoll that overlooks the cattle grazing area. The house was newly built as shown in the 1953 aerial photograph. The barn and the other outbuildings may or may not be less than 45 years old.

Site P#36-13391 consists of a cinder block outbuilding with a Quonset hut-style metal roof located near Cucamonga Avenue. The building is a remnant of the large McClean farm complex found on the 1953 aerial photograph.

Site P#36-13410 consists of two older houses located along Chino-Corona Road. The houses and outbuildings were probably built to house the office or workers for a dairy complex once located on the Race property to the west.

Prehistoric site CA-SBR-12572 consisted of a cluster of three millingstones found in an area about 50m x 100m in size. The artifacts appear quite old, and consist of two manos and one stone ball. The Fuqua Ditch (CA-SBR-12573H) is located along the eastern margin of the Project area. A scar associated with the ditch can be seen on various aerial photographs, and a trace of the ditch was detected during the survey. For this reason, the Ditch, once a "pending site," was re-recorded and a Trinomial issued by the State.

Historic site CA-SBR-12573 consisted of The Fuqua Ditch, which is located along the northeastern margin of the Project area. The site would not be directly affected by construction because it is in an area designated as Open Space in the proposed Project. The MBA Phase II testing party relocated the centerline of the ditch and excavated a trench to determine its width and depth. Re-recording would have been required if and only if significant historic ditch elements were found during the test. No significant elements were found.

Archaeological Sites Adjacent to the Project Area

The cultural resources listed in Table 4.5-2 below lie outside the boundary of the Project area, but were noted during the AIC records search. Pending site P871-22H is not listed in Table 4.5-2 because this may have been demolished years ago and may have been replaced by modern structures, or the original was extensively remodeled. Six isolated artifacts are recorded in the vicinity but are not included in Table 4.5-2 because mitigation for these isolated artifacts is not required according to Office of Historic Preservation (OHP) Guidelines.

Table 4.5-2: Known Cultural Resources Near the Project Area

AIC Resource Number	Type	General Location in Relation to Project Area
CA-SBR-1543	Large scatter of prehistoric tools and flakes, a probable village.	Southwest.
CA-SBR-2259	Two milling artifacts.	Northwest.
CA-SBR-2260	Milling slab.	West.
CA-SBR-2845	Scatter of artifacts along Mill Creek.	Very near northeast portion of Project area.
CA-SBR-5243	Light scatter of flaked stone and fire-cracked rock.	Southwest.
CA-SBR-5244	Scatter of artifacts along Mill Creek.	Northeast, on east side of Mill Creek.
CA-SBR-5274	Buried prehistoric site discovered during drilling and trenching.	North.
CA-SBR-5573H	Britski Ranch farmhouse complex.	Southwest.
CA-SBR-7136H	The Hartshorn Farm.	Southwest.
CA-SBR-7676H	Ross Ranch House.	South.
CA-SBR-7679H	LeGaye Ranch, olive grove, and historic artifacts.	South, along McCarty Road.
CA-SBR-8091H	Lester's 1875 Homestead and the Phillips Ranch.	West.
P (Pending) 871-13H	The Brown Place.	Northeast.
P871-14H	Arborn Ranch and the Raab Farm.	On land exhibiting CA-ORA-2845.
P871-15H	Willow Springs Ranch.	Northeast.
P871-17H	Valley School.	Northeast.
P871-18H	Eva J. Hall Property.	Northeast.
P871-19H	The Fuqua Ditch.	Portions inside the Project area were noted during survey. Also observed in the 1953 aerial.
P871-1H	Original 1880 McCarty homestead house.	Southeast.
P871-20H	Cline Homestead.	North.

Table 4.5-2 (Cont.): Known Cultural Resources Near the Project Area

AIC Resource Number	Type	General Location in Relation to Project Area
P871-21H	Guapas House.	North.
P871-2H	1906 McCarty Homestead Complex.	Southeast.
P871-3H	Dunn-Baldwin Farm.	Southeast.
P871-41H	The Cemetery (the Indian or Grange Cemetery).	South, ½ mile.
P871-4H	The Kirby Farm.	East.
P871-5H	The Songer Place.	East.
P871-6H	Ben Fuqua Ranch.	Southeast. The Fuqua Ditch irrigated 60 acres near this site locality.
P871-8H	Remington Ranch House (the old house now stands on the Viramonte property [APN#1057-212-08-0000], but elements of this site may spill onto the Edgewater Communities Project area.	Elements of this site may spill onto the Edgewater Communities Project area. 1953 Aerial/MBA survey. Discussed by Langenwalter and Brock, 1985.
P872-45H	The Cavanaugh Residence.	West.
P872-46H	The Cavanaugh House/Blinn Residence.	West.
P892-79H	The Phillips Farm and Dairy.	Northwest.
Source: Michael Brandman Associates, 2007.		

The number of historic resource sites near the Project area is large, relatively speaking, compared to the rest of southwest San Bernardino County. This is because many of these were identified and recorded by US Army Corps of Engineers contracting historic archaeologists (Langenwalter and Brock 1985, Greenwood and Foster 1990) when proposals for the raising and expansion of the Prado Dam and Reservoir were first initiated in the early 1980s. As a result of the historical analysis, the area exhibits extensive evidence of early homesteading activities in AIC files, plus the fact that the lands in this area are near several reliable sources of water (Chino Creek, the Santa Ana River, and Mill Creek/Cucamonga Creek).

Phase II Cultural Resource Significance Evaluation

MBA archaeologists developed a description of the historic sites by determining where the tested structure complexes were located on the archival aerials, examining the footprints in the field where possible during the survey (MBA 2007), then performing an extensive historic background analysis. The cultural significance of sites P36-13391, P36-13408, P36-13409, P36-13410, CA-SBR-12572, and CA-SBR-12573H were determined during the Phase II assessment (MBA 2007). MBA Staff concluded that none of these sites should be considered significant and that no further mitigation on these sites is required.

Most of the “pending” sites in the Project area could not be relocated, but may be buried beneath topsoil. MBA determined that there could be impacts to significant resources during grading, and recommended that the Project area be monitored during construction. New site CA-SBR-12613H was detected during the Phase II assessment fieldwork and found to be not significant.

Native American Contact

As part of the background analysis for the Project area, MBA sent an inquiry to the Native American Heritage Commission (NAHC) requesting information regarding Sacred Sites that may be located on or near the Project area. The response from the NAHC was that no Sacred Sites are listed in or near the Project area, but that six tribal entities may have additional information regarding the locations of Sacred Sites. Inquiry letters to the six tribal groups named by the NAHC were mailed on June 14, 2007 (see Appendix E Phase I Cultural Survey Report, Appendix A-1, Sacred Lands Search). No responses to those letters were obtained.

MBA Staff conferred with a Gabrieliño tribal representative, Mr. Sam Dunlap of the Gabrieliño-Tongva Tribe, and requested that he be part of the Phase II assessment at prehistoric site CA-SBR-12572. Mr. Dunlap was on hand to observe testing at the site. Mr. Dunlap did not indicate to MBA Staff that any sacred materials had been unearthed.

The City of Chino is required to undertake consultation with appropriate tribal governments in accordance with Government Code §65352.3 (SB18). Although Government Code §65352.3 consultations are timed with the EIR process, they are not officially part of the EIR process.

Paleontological Resources

A paleontological records check was requested by MBA on October 17, 2006 from the San Bernardino County Museum. A response was received on November 6, 2006 from Eric Scott of the County Museum. The paleontological review showed that the Project area is located upon surface exposures of Pleistocene older alluvial fan deposits. Holocene wash deposits associated with the Mill Creek drainage overlie the Pleistocene deposits in the eastern portion of the Project area. No known fossil resources are located within one mile of the Project area in any direction. The Holocene sediments have low potential to contain fossil resources. These units, however, act as a veneer over the Pleistocene deposits. Scott stated that should the older Pleistocene deposits be encountered during Project-related earthmoving, impacts to significant fossil resources might occur. The Pleistocene alluvial deposits in this region carry high potential significance, and potential impacts should be mitigated for.

4.5.3 - Regulatory Setting

State Regulations

The California Environmental Quality Act (CEQA) contains several provisions that expressly recognize that Native American and/or archeological resources may be accidentally discovered following the commencement of project construction. To ensure that appropriate mitigation treatment

is applied in these contexts, CEQA contains several regulatory guidelines that dictate how the inadvertent discovery of such resources during the construction process are to be dealt with by the project applicant and/or developer. The regulatory guidelines are discussed below.

Title 14, California Code of Regulations 15064.5(d)

When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:

- The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
- The requirements of CEQA and the Coastal Act.

Title 14, California Code of Regulations 15064.5(e)

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - If the coroner determines the remains to be Native American:
 - ◇ The coroner shall contact the NAHC within 24 hours.
 - ◇ The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 - ◇ The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity, on the property in a location not subject to further and future subsurface disturbance pursuant to Public Resources Code Section 5097.98(e).
 - The NAHC is unable to identify a most likely descendent or the most likely descendent fails to make a recommendation within 48 hours of being granted access to the site.

- The descendant identified fails to make a recommendation; or
- The landowner or his authorized representative rejects the recommendation of the descendant, and a mediation by the NAHC fails to provide measures acceptable to the landowner.

Title 14, California Code of Regulations 15064.5(f)

CEQA Guidelines Section 15064.5(f) recognizes that historical or unique archeological resources other than potential Native American burials may be accidentally discovered during project construction. This Guideline recommends that immediate evaluation of the find by a qualified archeologist be included in mitigation measures. This guideline also recommends that if the find is determined to be an historical or unique archeological resource, that contingency funding and a time allotment sufficient to allow for implementation of avoidance measures be available.

City of Chino General Plan

The City of Chino General Plan Conservation/Open Space Element identifies goals and policies regarding cultural and historical resource considerations, indicated in Table 4.5-3. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.5-3: Conservation/Open Space Element Goals and Policies

Reference	Description
Goal G5-4	Cultural and Historical Preservation - To preserve the City's cultural and historical resources for the enjoyment and education of Chino residents.
Policy P5-4.1	Encourage the Growth of Chino Valley Historical Society - To encourage the growth and continued activities of the Chino Valley Historical Society.
Policy P5-4.2	Preserve Historical Structures and Neighborhoods - To encourage the City to make efforts at preserving historically significant structures and neighborhoods.
Policy P5-4.3	Preserve Existing Architectural Styles - To encourage the preservation of existing architectural styles and themes in the City's neighborhoods to ensure that architectural continuity is maintained.
Policy P5-4.4	Preserve Cultural Heritage - To preserve the City's agricultural heritage as a reminder of Chino's past.
Policy P5-4.5	Preserve Cultural/Archaeological Resources - To encourage the preservation of the City's cultural/archaeological resources.

The City of Chino General Plan Conservation/Open Space Element does not address paleontological resources directly as this issue is addressed as part of the broader category of cultural resources. At the State level, CEQA requires that paleontological issues be addressed by the Lead Agency.

The Preserve Specific Plan and EIR

The cultural resource section of The Preserve Final EIR describes eight prehistoric sites and 45 historic sites in the Specific Plan area, and indicates that development within The Preserve could have adverse impacts to known and as yet undiscovered cultural resources. Mitigation measures were identified to reduce the potential impacts to cultural resources and included Phase I field survey technical reports, cultural resource monitoring, and paleontological monitoring. Planned development in The Preserve area was not anticipated to contribute to potential cumulative impacts on any cultural resource.

The cultural resource section of The Preserve Final EIR (2003) did not address the intersection of Native American concerns with the CEQA planning process because, at the time, it was not required under State Law. Under Government Code §65352.3 (Senate Bill 18), it is now crucial that Lead Agencies account for the historic interests of Native American groups in the planning process. For the Edgewater Communities Project, the City of Chino can refer to the Phase I Survey and Phase II Testing reports (MBA 2007) to determine the level of involvement or interest indicated by various local tribes. Since a representative of the Gabrieliño Tribe witnessed excavations at a prehistoric site as part of Phase II testing, there is a precedent for future monitoring involvement among the Gabrieliños during Project-related earthmoving in the Project area.

4.5.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to cultural resources are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

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

4.5.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. The Preserve Specific Plan recommended the following uses for the Project site: Estate Residential (ER; 3.65 acres), Open Space Recreational (OS-R; 14.59 acres), Agricultural and Open Space Natural (AG/OS-N; 197.14 acres) and Open Space Natural (OS-N; 57.55 acres). Amending the Specific Plan as proposed by the Edgewater Project would modify the agricultural and open space uses to permit 138.44 additional acres of residential uses, yielding a total

area for residential use of 142.09 acres (versus 3.65 acres of residential uses now permitted). Project implementation could create a potential impact to Project cultural resources; however, Project technical analyses and incorporation of mitigation measures allow for complete mitigation of potential impacts.

Cultural Resources

Impact 4.5-1:	The Project could cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. [CEQA Cultural Resources Threshold 5(a)] The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. [CEQA Cultural Resources Threshold 5(b)]

Impact Analysis

The Phase II Cultural Resources Testing and Evaluation Report (MBA 2007) showed that cultural resources in the Project area are not significant following CEQA guidelines, but it is possible that cultural resources could be uncovered during Project-related earthmoving and grading. The Phase II analysis determined that an archaeological mitigation monitoring program should be developed before grading begins. The mitigation monitoring program should be designed to mitigate for impacts to potentially significant finds while grading is taking place and without substantial disruption to the grading process.

The Preserve Specific Plan and EIR

The cultural resource analytical method associated with the proposed Project is consistent with the analytical methodology mandated by The Preserve Final EIR Mitigation Measure (MM) CR-1, Survey and Mitigation Report. Final EIR Mitigation Measure CR-2, Archaeological Monitoring and CR-3, Paleontological Monitoring have also been incorporated into proposed Project mitigation because earthmoving and grading in the Project area may encounter buried cultural and fossil resources. Section 5 of this Draft EIR contains a full listing of The Preserve Final EIR Mitigation Measures.

Level of Significance Before Mitigation

Potentially significant. [CEQA Cultural Resources Threshold 5(b)]

Mitigation Measures

CR-1 A City-approved Project Archaeologist with background in the historic resources of the City of Chino shall create a mitigation monitoring plan to direct archaeological monitoring prior to earthmoving in the Project area, as directed in CR-2. A pre-grade meeting to review the details of that plan must occur between the monitoring archaeologist(s) and the grading contractor before grading begins. The plan must discuss contingency plans associated with Native American tribal representation if any prehistoric artifacts are found during earthmoving. These artifacts may potentially be considered sacred items by one or more Native American tribes. The

mitigation monitoring plan must contain a description of how and where artifacts will be curated if found during monitoring.

- CR-2** Once a depth below the modern ground surface of 3 feet is reached, full-time monitoring shall be required during all construction-related earthmoving. The Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected after 50 percent of the qualifying ground has been graded. If buried cultural resources are detected during monitoring, monitoring must continue until 100 percent of virgin earth within the Project area has been disturbed and inspected by the monitor(s).
- CR-3** Should previously unidentified cultural resource sites, prehistoric or historic cultural resources be encountered during monitoring, they should be Phase II tested and evaluated for significance following CEQA Guidelines prior to allowing a continuance of grading in the area.
- CR-4** The locations of seven historic pending sites (P871-8H, P871-9H, P871-10H, P871-11H, P871-12H, P871-16H, and P871-22H) shall be carefully monitored during grading of the Project area. Should subsurface manifestations of these sites be uncovered during grading, their qualities shall be documented by the monitoring archaeologist for inclusion in the monitoring report.
- CR-5** If geotechnical investigations must take place within 250 feet of any known cultural resource site in the Project area, the geotechnical investigation must be monitored by a qualified archaeologist.
- CR-6** Construction-related earthmoving must be monitored by one (1) qualified Native American monitor. The monitor must belong to the Tribe or be a known descendant of the Gabrieliño Band of Mission Indians.

Level of Significance After Mitigation

Less than significant.

Paleontological Resource or Geologic Feature

Impact 4.5-2:	The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [CEQA Cultural Resources Threshold 5(c)]

Impact Analysis

The Phase I Cultural Survey Report and Paleontological Resource Assessment (MBA 2007) showed that there are no known significant paleontological resources in the Project area, but it is possible that such resources could be uncovered during Project-related earthmoving and grading. The analysis determined that an archaeological mitigation monitoring program should be developed before grading

begins. The mitigation monitoring program would be designed to mitigate for impacts to potentially significant finds while grading is taking place and without significant disruption.

Level of Significance Before Mitigation

Potentially significant. [CEQA Cultural Resources Threshold 5(c)]

Mitigation Measures

- CR-7** Prior to any clearing and grubbing and/or earthmoving activities on the Project area, a qualified Project Paleontologist retained by the Project Proponent and approved by the City shall review the approved development and construction plans. The Project Paleontologist shall participate in a pre-construction Project meeting with the development Staff to ensure an understanding of the mitigation measures required during construction.
- CR-8** Once a depth of 5 feet is reached during grading or trenching, paleontologic monitoring of any earthmoving will be conducted by a qualified monitor, under direct guidance of a Project Paleontologist. Earthmoving in areas of the Project site where previously undisturbed sediments will be buried but not otherwise disturbed will not be monitored. Non-virgin soils need not be monitored.
- CR-9** If fossil remains are found, the Project Paleontologist shall develop a storage agreement with a museum repository acceptable within the City or County to allow for the permanent storage and maintenance of any fossil remains recovered in the Project area as a result of the mitigation program, and for the archiving of associated specimen data and corresponding geologic and geographic site data. Any recovered fossil remains will be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains then will be curated (assigned and labeled with museum repository fossil specimen numbers and corresponding fossil site numbers, as appropriate, placed in specimen trays and, if necessary, vials with completed specimen data cards) and catalogued. Associated specimen data and corresponding geologic and geographic site data will be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized databases) at the museum repository by a laboratory technician. The remains then will be accessioned into the museum repository fossil collection, where they will be permanently stored and maintained. The associated specimen and site data will be made available for future study by qualified investigators.
- CR-10** A final report of findings shall be prepared by the Project Paleontologist for submission to the City, and the museum repository following accessioning of the specimens into the museum repository fossil collection. The report will describe

Project site geology/stratigraphy, summarize field and laboratory methods used, include a faunal list and an inventory of curated/catalogued fossil specimens, evaluate the scientific importance of the specimens, and discuss the relationship of any newly recorded fossil site within the Project site to relevant fossil sites previously recorded from other areas.

Level of Significance After Mitigation

Less than significant.

Human Remains

Impact 4.5-3:	The Project may disturb human remains, including those interred outside of formal cemeteries. [CEQA Cultural Resources Threshold 5(d)]

Impact Analysis

Based on the record search and field surveys conducted on the Project site, no known human remains are located on the Project site. However, it is possible, but unlikely, that unknown human remains could be present. Compliance with the provisions of Title 14, California Code of Regulations 15064.5(e) (see subsection 4.5.3, Regulatory Setting) will ensure that, in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the required steps would be followed. No additional mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.5-4:	The Project could impose an incremental effect on the loss of cultural and/or paleontological resources of the regional area.

Impact Analysis

Based on the Project-specific findings addressed previously, implementation of the proposed Project would not affect any significant archaeological, historical, and/or paleontological resources and would not contribute to potentially significant cumulative impacts on such resources. However, as previously noted, it is possible that unknown archaeological, historical and/or paleontological resources could be uncovered during earthmoving or grading in the Project area; therefore, the Project's potential impact on unknown resources could contribute to potentially significant cumulative impacts. Mitigation measures associated with monitoring during Project-related earthmoving and grading will reduce any potential cumulative impacts to less than significant. No

additional mitigation measures beyond what has been identified for Project-specific impacts is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant.

4.5.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.5-4 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.5-4 Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Cultural Resources

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
No corresponding Project Cultural Resource mitigation measure.	CR-1. Survey and Mitigation Report.	Project in compliance. Project Archaeological Survey completed.
CR-1 through CR-6. Archaeological Mitigation Monitoring.	CR-2. Archaeological Monitoring.	Project in compliance. No conflict between The Preserve EIR and Project mitigation.
CR-7 through CR-10. Paleontological Mitigation Monitoring.	CR-3. Paleontological Monitoring.	Project in compliance. No conflict between The Preserve EIR and Project mitigation.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.6 - Geology and Soils

4.6.1 - Introduction

This section describes the existing geology and soils setting and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based primarily on data contained in the Report of Phase 2 Geotechnical Investigation, prepared by GMU Geotechnical, Incorporated (March 2007, contained in Appendix F of this Draft EIR).

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comment letters addressing topics covered by CEQA geology and soils thresholds were contained in letters submitted to the City. Orange County Water District submitted a comment letter focused on hydrology, water quality, and biological resource issues. Erosion was also addressed, and is covered in Section 4.8, Hydrology and Water Quality.

4.6.2 - Existing Conditions

Topography and Surface Features

The topography at the site is variable, ranging from essentially flat in the northern portion, to gently rolling hills in the southern portion. The southern portion consists of a small north-south trending ridge, bounded by smaller knobs or rounded hills and gently graded low areas. Slopes become steeper along the eastern boundary near Mill Creek. Elevation within the Project site ranges from approximately 508 to 579 feet above mean sea level.

The Project site is currently occupied by an active dairy operation known as the Stueve Dairy (with a cow population generally ranging from 600-800 cows) and open land. The dairy portion of the site consists of several residences, barns, and associated structures. Cattle holding pens make up the majority of the dairy area. Multiple small waste discharge ponds are located in the southwestern portion of the dairy area, serving to collect and handle the wastewater associated with dairy operations. Wastewater and storm water runoff from four adjacent dairies is also currently accepted. Water is managed using onsite percolation/ evaporation and/or irrigation through the use of manmade ponds.

The open lands within the site contain several structures, including an unoccupied residence and a barn, several dirt access roads, irrigation pipelines, and a manmade pond located in the southeast corner containing dairy wastewater.

Surficial Soils

The surface of the site is generally disturbed from historical agricultural use. The surface soils of the site generally consist of undocumented artificial fill and alluvial fan deposits. The surface of most of the site is underlain by older alluvial deposits.

Areas of undocumented artificial fill are predominately within the northern portion of the site. These areas generally consist of silts and sands with some clays and intermittent zones of debris and organic material. The organic content of the undocumented fill varies and is generally less than 2 feet thick; however, deposits of debris and organic material are found up to 11 feet thick in some areas throughout the site.

Quaternary Older Alluvial Fan Deposits were encountered at either the surface or underlying the artificial fill across the site. The Chino Hills, located approximately one mile to the west, is the likely source of the older fan deposits. The alluvial sediments are generally horizontally deposited and are currently dissected by various alluvial channels, including Mill Creek, located within and just east of the site. Where observed, the older alluvial deposits consisted of varicolored silts and sands with some clays and gravels. These deposits are generally porous at shallow depths, medium dense to dense, with moderately to well-developed soil structure. The organic content of the older alluvium ranges from 1.0 to 6.1%.

Native soil on the southern portion of the site consists of dark brown, organic rich mixtures of clays, silts, and sands. The upper layer consisting of 1 to 2 feet of native soils is disturbed from previous agricultural use. These soils are porous and damp to moist with an organic content of between 2.5 percent to 6.7 percent. Native soils are up to 6 feet thick with an average thickness of approximately 2 feet.

Quaternary Alluvial Deposits on the eastern portion of the site, adjacent to Mill Creek, generally consist of mixtures of light brown to brown silts and sands with some clays likely derived from sediment deposited by Mill Creek. These soils range from loose to dense, damp to wet, and slightly to moderately porous. Organic content of the alluvial soils varies. Additional discussion of Project soils is contained in Section 4.2, Agricultural Resources and Appendix B, Agricultural Resources.

Bedrock Formations

Geologic structure in the area of the Project site is predominately controlled by faulting and folding from tectonic activity beginning during the Tertiary period and continuing to present. The Project site is located within the eastern portion of the Peninsular Ranges geomorphic province on a thick accumulation of alluvial fan deposits. The Peninsular Ranges province is predominately characterized by igneous basement rock overlain by sedimentary and volcanic deposits.

Faulting and Surface Rupture

There are no known active or potentially active faults crossing the Project site. As stated in the GMU report, the site is not within a designated Alquist-Priolo Earthquake Fault Zone. The site is located within close proximity of several surface faults that are presently zoned as active or potentially active by the California Geological Survey (CGS) pursuant to the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act. The nearest of these faults is the Chino-Central Avenue Fault, which is

located approximately 5.1 kilometers (1.8 miles) northwest of the Project site and trends northwest-southeast.

Ground Shaking

The Project site is located within Seismic Zone 4 for design pursuant to the Uniform Building Code (UBC), defined as the zone which has the highest earthquake danger. No active or potentially active faults are known to cross the site; therefore, the potential for primary ground rupture due to faulting onsite is very low to negligible. However, the site will likely be subject to seismic shaking at some time in the future.

Seismic sources and source distance are used to predict the level of ground shaking that could be experienced on the site for seismic design purposes under the UBC. There are 31 faults located within a radius of 80 kilometers of the site coordinates (USGS Prado Dam 7-1/2 minute quadrangle, Latitude 33 9390N, Longitude 117 6280°W). Table 4.6-1 shows the fault type, annual displacement, distance to the Project site and maximum probable earthquake that could be generated at each of the 31 faults closest to the Project site. The calculated peak horizontal ground acceleration (PHGA) for the Project site is 0.5g based on an earthquake of magnitude 6.75 on the Chino-Central Avenue Fault. Such an event would have a 10 percent probability of exceedance in 50 years.

Table 4.6-1: Seismic Source Data

Fault Name	Distance (km)	Seismology Parameters		
		Maximum Mw	Fault Type	Slip Rate (mm/yr)
Chino-Central Avenue	5.1	6.7	rl-r-o	1.0
Whittier	8.8	6.8	rl-ss	2.5
Elsinore - Glen Ivy	10.0	6.8	rl-ss	5.0
Puente Hill Thrust	22.7	7.1	bt	0.4
Sierra Madre	25.3	7.2	r	2.0
Cucamonga	25.9	6.9	r	5.0
Newport-Inglewood (Offshore))	27.0	7.1	rl-ss	1.5
San Jacinto - San Bernardino	31.9	6.7	rl-ss	12.0
San Joaquin Hill Blind Thrust	35.6	6.6	bt	0.5
San Andreas - San Bernardino M-Ic-4	39.5	7.5	rl-ss	24.0
San Andreas - SB-Coach. M-lb-2	39.5	7.7	rl-ss	27.0
San Andreas - SB-Coach. M-2b	39.5	7.7	rl-ss	24.0
San Andreas - Whole M- la	39.5	8.0	rl-ss	30.0
San Andreas - 1857 Rupture M-2a	40.9	7.8	rl-ss	34.0
San Andreas - Cho-Moj M-lb-1	40.9	7.8	rl-ss	34.0

Table 4.6-1 (Cont.): Seismic Source Data

Fault Name	Distance (km)	Seismology Parameters		
		Maximum Mw	Fault Type	Slip Rate (mm/yr)
San Andreas - Mojave M-lc-3	40.9	7.4	rl-ss	30.0
Elsinore - Temecula	41.9	6.8	rl-ss	5.0
Clamshell-Sawprt	42.2	6.5	r	0.5
Raymond	42.4	6.5	ll-r-o	1.5
Cleghorn	44.1	6.5	ll-ss	3.0
Newport-Inglewood (L.A. Basin)	44.7	7.1	l-ss	1.0
Elysian Park Thrust (upper)	45.9	6.4	r	1.3
Verdugo	52.6	6.9	r	0.5
North Frontal Fault Zone (western)	52.8	7.2	r	1.0
Hollywood	59.6	6.4	ll-r-o	1.0
Palos Verdes	61.3	7.3	r-ss	3.0
San Jacinto - Anza	69.3	7.2	rl-ss	12.0
San Gabriel	73.5	7.2	rl-ss	1.0
Sierra Madre (San Fernando)	73.7	6.7	r	2.0
Santa Monica	75.0	6.6	ll-r-o	1.0
Coronado Bank	79.6	7.6	rl-ss	3.0
rl = right-lateral ll = left-lateral ss = strike-slip I = reverse o = oblique bt = blind thrust Mw=measure of fault magnitude Source: GMU Report of Phase 2 Geotechnical Investigation, March 16, 2007, as taken from the California Department of Mines and Geology (CDMG) Statewide Fault Database (CDMG Special Publication 42 [Revised 2003]).				

Groundwater

The Project site is located within the Chino Basin, on the northern limit of the Prado Flood Control Basin. This basin flows into the Santa Ana River, east-west from the San Jacinto Mountains to the Pacific Ocean and consists of several stacked aquifers within the alluvial deposits up to several hundred feet thick. Historically, groundwater within the Chino Basin has fluctuated dramatically due to extraction for consumption. Groundwater management beginning in the 1970s by the Chino Basin Watermaster, together with imported water, have led to more stabilized groundwater elevations within the Chino Basin.

The groundwater level beneath the Project site is between approximately 6 and 40 feet below the existing ground surface and slopes gently to the south and east. Perched ground water was also found across the site in localized areas. The shallowest groundwater elevations occur along the southern boundary of the site and the eastern boundary, along Mill Creek. The surface of groundwater slopes upward toward the northern portion of the site. In comparison to historical data, the current

groundwater table appears to be up approximately 20 feet higher in the northern portion of the site. Groundwater elevations observed during the geotechnical investigation for the Project are listed in Table 4.6-2.

Table 4.6-2: Groundwater Levels

Exploration Number	Date of Reading/Test	Depth to Groundwater (feet bgs)	Elevation of Groundwater (feet msl)
CPT-1	2-13-04	16	546
CPT-3	2-13-04	13	547
CPT-5	2-13-04	23	523
DH-3	2-7-07	26.2	535.8
DH-5	2-7-07	6.8	529.2
DH-6	2-7-07	38.6	519.4
DH-7	2-7-07	20.0	525.0
DH-8	2-7-07	30.2	519.8
bgs=below ground surface msl=mean sea level Source: GMU Report of Phase 2 Geotechnical Investigation, March 16, 2007.			

4.6.3 - Regulatory Setting

State

Alquist-Priolo Earthquake Fault Zoning Act

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones (EFZs) along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an EFZ. The EFZs are revised periodically, and extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an EFZ is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

California Building Standards Code

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, sets forth minimum requirements for building design and construction. The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes

- Building standards that have been adopted and adapted from the national model code standards to meet California conditions
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns

In the context of earthquake hazards, the California Building Standards Code's design standards have a primary objective of assuring public safety and a secondary goal of minimizing property damage and maintaining function during and following a seismic event. Recognizing that the risk of severe seismic ground motion varies from place to place, the California Building Standards Code seismic code provisions will vary depending on location (Seismic Zones 0, 1, 2, 3, and 4; with 0 being the least stringent and 4 being the most stringent).

Local

City of Chino General Plan

The City of Chino General Plan, Seismic and Public Safety Element, identifies applicable goals and policies relating to geology and soils. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.6-3: Seismic and Public Safety Element Goals and Policies

Reference	Description
General Goal	To reduce loss of life, injuries, damage to property and social-economic dislocations resulting from seismic-geologic hazards.
Policy 1	Identify geologic conditions, in particular seismic conditions within the County needing special management.
Policy 2	Promote open space land uses on land determined unfit for structures of human occupancy.
Policy 3	Develop public works projects designed to protect the public and property from geologic hazards.
Policy 4	Request geologic studies for proposed development for human occupancy, emphasizing all critical facilities and structures of high or involuntary occupancy, within areas needing special management.
Policy 5	Discourage the locating of structures for human occupancy on potentially active faults or on certain potential landslides and the path of their earth flow.
Policy 6	Discourage the locating of critical facilities and structures of high or involuntary occupancy adjacent to a potentially active fault.
Policy 7	Stress compatibility between structural design and the local geologic hazard.
Policy 8	Support programs which would locate seismically unsafe structures and elements, and then require their mitigation.

Table 4.6-3 (Cont.): Seismic and Public Safety Element Goals and Policies

Reference	Description
Policy 9	Support programs which would increase minimum seismic structural resistance standards.
Policy 10	Develop programs and procedures which will inform the general public and other governmental agencies of the seismic geologic hazards and policies which concern them.
Policy 11	Continue improving the County's disaster response system.
Policy 12	Request that public safety facilities be located, designed, and managed in a manner which would maximize their ability to remain functional during and after an earthquake.
Policy 13	Request funds and programs to aid in the abatement of unsafe structure.
Policy 14	Plan to review and amend this Element as required.
Policy 15	Encourage geologic hazards research programs and acceptable risk studies.
Policy 16	Support geologic protection legislation.
Policy 17	Require consistency between this Plan, the County General Plan, and County ordinances.
Policy 18	Require all new developments to comply with established seismic safety standards.
Policy 19	Encourage the reduction of risks associated with hazardous old buildings through action programs, including, but not limited to renovation, occupancy reduction, and selective demolition.
Policy 20	Provide relocation assistance to persons or businesses temporarily or permanently dislocated from hazardous old buildings.

The Preserve Specific Plan and EIR

The Preserve EIR found that, with mitigation, implementation of the Specific Plan would result in less than significant impacts for geology and soils. Specific mitigation measures addressing the geology and soils impacts of Specific Plan implementation are listed in this section in Table 4.6-4, and presented in their entirety in Section 5, List of Mitigation Measures of this Draft EIR.

Under The Preserve Specific Plan, only 3.65 acres of the Edgewater Project site were designated for development as Estate Residential (at 2 dwelling units per acre or 7 units total). The remaining area of approximately 269 acres was designated for Open Space-Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N), and Open Space-Natural (OS-N).

4.6.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, the following questions are analyzed and evaluated to determine whether impacts to geology and soils are significant environmental effects: Would the project:

- a.) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
 - (ii) Strong seismic ground shaking?
 - (iii) Seismic-related ground failure, including liquefaction? or
 - (iv) Landslides?
- b.) Result in substantial soil erosion or the loss of topsoil;
- c.) 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?
- d.) Be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property?
- e.) 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?

CEQA Geology and Soils Threshold 6(e) does not apply to the proposed Project and therefore will not be addressed.

4.6.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Project implementation would increase acreage occupied by residential uses within the Project site from 3.65 acres under the Specific Plan (7 maximum dwelling units) to 142.09 acres (1,074 maximum dwelling units) under the proposed Project. Museum/retail and church/school uses would also be established under the proposed Project. Geologic and soil considerations increase in importance under the proposed Project with the 142.09 acres of developed uses proposed.

Seismic Hazards

Impact 4.6-1:	Project implementation would not result in the exposure of persons or structures to seismic hazards such as fault rupture, strong ground shaking, liquefaction, ground failure, and/or landslides. [CEQA Geology and Soils Threshold 6(a)]

Impact Analysis

Potential seismic hazards include fault rupture, strong ground shaking, ground failure, and landsliding. Each of these hazards is discussed below.

Fault Rupture

There are no known active or potentially active faults crossing the Project site. The site is not within a designated Alquist-Priolo Earthquake Fault Zone. The nearest active or potentially active fault is the Chino-Central Avenue Fault, located approximately 5.1 kilometers (1.8 miles) northwest of the Project site. A minimum distance to the nearest active or potentially active fault of 1.8 miles precludes the possibility of fault rupture occurring on the Project site. No impacts would occur.

Strong Ground Shaking

A major seismic event on one of the faults listed in Table 4.6-1 may result in strong ground shaking on the Project site. To reduce the potential for exposure of persons and property to harm, the proposed Project would be required to meet the applicable seismic design standards of the California Building Standards Code. The Phase 2 Geotechnical Investigation sets forth recommendations in accordance with the California Building Standards Code to address potential ground shaking impacts. These recommendations include corrective grading, dewatering, fill material and placement, subdrains, seismic design criteria for structures, foundation and pavement design (see Appendix F). These recommendations are consistent with the California Building Standards Code seismic standards. Compliance with the Phase 2 Geotechnical Investigation recommendations would ensure that potential impacts are less than significant.

Ground Failure

The risk from ground failure is based on the potential for liquefaction, seismic settlement, and lateral spreading occurring on the Project site. The Phase 2 Geotechnical Investigation addressed liquefaction and related hazards quantitatively due to the shallow groundwater table and the alluvial nature of the subsurface soils at the Project site. GMU determined that the potential for surface effects due to liquefaction are considered very low due to the presence of a fill cap on most of the site in the developed state, and the depth of the liquefiable soil layers below the proposed ground elevation. Potential seismic settlement was deemed acceptable. Potential for liquefaction-induced lateral spread and flow failure adjacent to the design slopes is anticipated to be low for the design seismic event. Accordingly, potential ground failure hazards would be less than significant.

Landslides

Given the existing topography of the site, the proposed grading, and the proposed corrective grading planned to occur, the potential for seismically-induced landsliding is considered by GMU to be negligible. A less than significant impact would occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts associated with seismic hazards are less than significant.

Level of Significance After Mitigation

Less than significant.

Soil Erosion or Topsoil Loss

Impact 4.6-2:	The Project will not result in substantial soil erosion or the loss of topsoil. [CEQA Geology and Soils Threshold 6(b)]

Impact Analysis

See Section 4.8, Hydrology and Water Quality, Impact 4.8-3 analysis. During the construction phase, the existing structures and facilities on the Project site will be demolished and removed. Areas of the Project site where undocumented fill is located will undergo corrective grading and the fill material will be disposed of offsite. The site will be graded and prepared for building foundations.

Demolition, grading and corrective grading, removal of undocumented fill, site preparation and construction will disrupt the surface of the site and will expose the surficial soils to erosion by surface water runoff and removal by wind.

An erosion control plan will be required by the City as part of grading plan check and approval for the Project. During plan check and prior to issuance of grading permits, the City of Chino will review and approve the erosion control plan for the Project to ensure that the plan complies with Chino Municipal Code requirements in keeping with Regional Water Quality Control Board (RWQCB) standards (see Draft EIR Section 4.8 for discussion of RWQCB regulations). The City of Chino Grading Inspector will ensure compliance with the erosion control plan during field certifications. During construction, the Project will also be subject to the requirements of Rule 403 Fugitive Dust Emissions Control issued by the South Coast Air Quality Management District. The Fugitive Dust Emissions Control Plan will include Best Management Practices such as regular watering of the top soils during grading, making the site less susceptible to soil erosion. A Project Storm Water Pollution Prevention Plan (SWPPP) will also be required to reduce potential short-term impacts of soil erosion or the loss of topsoil. Impacts will be less than significant. No further mitigation measures are needed.

During the long-term operation of the Project, construction of buildings and roadways and establishment of landscaping will act to stabilize site soils. Installation and maintenance of drainage and landscaping according to City regulations and Project plans will ensure that the surface soils and manmade slopes will be stabilized. Adherence to GMU recommendations contained in the Phase 2 Geotechnical Investigation regarding slope landscaping and surface drainage as a condition of Project approval will ensure that long-term impacts are less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Unstable Geologic Location

Impact 4.6-3:	The Project is not 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. [CEQA Geology and Soils Threshold 6(c)]

Impact Analysis

See Impact 4.6-1 analysis. Stability of geologic units and soil is related to many factors, as discussed below.

Soil Stability

All site grading is subject to the requirements of City of Chino Grading Code and GMU recommendations. Soil stability will be ensured through corrective grading, dewatering, fill placement and compaction, and proper surface drainage and subdrains. The upper 5 feet of soils contains organic content greater than 2%, which are not suitable for building. The upper layer of soils and materials will be removed to expose existing in-place dense soil consisting of older alluvium. All organic materials such as weeds, brush, tree branches, roots or other decomposable materials will be removed. Decomposable or compressible debris such as buried trash/waste, undocumented fill, and the upper portion of dairy waste from dairy areas are not suitable for building, and will be stockpiled and disposed of offsite. Clean fill will be placed over the older alluvium and compacted in accordance with GMU recommendations. Adherence to City regulations and implementation of the geotechnical engineer's recommendations will ensure that impacts for soil stability are less than significant. (Issues related to methane in existing and remaining soils are addressed in Section 4.7, Hazards and Hazardous Materials, of this Draft EIR.)

Corrosive Soils

The soils within the Project site have the potential to be severely corrosive to ferrous metals and copper, and have a moderate potential for sulfate exposure to concrete. Project features having direct contact with the soils (e.g. underground metal conduits, pipelines, metal sign posts, metal fence posts and metal door frames) may require special precautions such as the use of coated steel, stainless steel, aluminum or other coated alternatives for metals in contact with the soils.

Groundwater

Liquefaction and lateral spreading are potentially significant impacts involving soil instability during a seismic event under conditions of a high groundwater table and granular soils. The alluvium and older alluvium at the site are subject to liquefaction with up to 2.5 inches of seismic settlement. Differential seismic settlement is expected to be less than 1.0 inch across 40 feet. The potential for liquefaction-induced lateral spreading and flow failures is low, and related impacts are considered less than significant. Because the liquefiable layers below the fill cap are discontinuous, the potential for liquefaction-induced lateral spread and flow failure adjacent to design slopes is also anticipated to

be less than significant. Surface impacts due to liquefaction are considered very low due to the non-native fill at the surface of most of the site. Removal of the existing fill, over-excavation in cut areas, and fill placement and compaction pursuant to GMU recommendations will provide a fill cap over the top five feet of most of the Project site to provide structural support for the Project and reduce potential impacts from liquefaction in the top layers of the Project site to less than significant. During the construction phase, groundwater may be encountered during grading operations where deeper cuts are needed such as where the lakes are proposed. Dewatering may be necessary during construction to temporarily increase the depth of groundwater for proper site preparation and foundations. Potential seismic settlement was deemed acceptable by GMU. Potential for liquefaction-induced lateral spread and flow failure adjacent to the design slopes is anticipated to be low for the design seismic event. Accordingly, potential ground failure hazards would be less than significant.

Subsidence

Following corrective grading, fill will be placed on top of dense older alluvium. Given the relatively shallow thickness of the planned fills, significant subsidence is not anticipated to occur. Project impacts from subsidence can be considered to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts related to lack of geologic stability are less than significant.

Level of Significance After Mitigation

Less than significant.

Expansive Soil

Impact 4.6-4:	The expansive potential of Project soils will not create substantial risks to life or property. [CEQA Geology and Soils Threshold 6(d)]

Impact Analysis

Based on laboratory testing from soils sampling conducted for the Phase 2 Geotechnical Investigation by GMU, Project soils have a very low to moderate expansion potential. Adherence to GMU grading and foundation system design recommendations (including the use of post-tensioned slabs) will ensure that impacts from expansive soil are maintained at a less than significant level.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required. Adherence to the recommendations of the GMU Phase 2 Geotechnical Investigation as a condition of Project approval will ensure that potential geology and soils impacts regarding expansive soils are less than significant.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.6-5:	Development of the proposed Project, and other past, present, and reasonably foreseeable future projects, could expose future populations to regional seismic hazards.

Impact Analysis

Compliance with seismic safety standards for new construction, recommendations of project geotechnical investigations, and ongoing provisions for emergency preparedness and response are anticipated to reduce such risks, on a project-by-project basis, to acceptable levels. Other geologic and soils influences are largely site specific, and there is little if any cumulative relationship between proposed Project development and development of other cumulative projects.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.6.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.6-4 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.6-4: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Recreation

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
Project Geotechnical Investigation has been prepared.	GS-1. Requirement for Geotechnical and Soils Engineering Study.	Project has complied. No conflict between Project and The Preserve EIR mitigation.
Adherence to the recommendations of the Project Geotechnical Investigation as a condition of Project approval and regulatory compliance with City engineering practices will ensure that potential impacts associated with geology and soils are less than significant. No geology and soils mitigation measures are required.	GS-2. Adherence to Requirements of Project Geologic Studies and City General Engineering Practices.	Project will comply. No conflict between Project and The Preserve EIR mitigation.
Adherence to the recommendations of the Project Geotechnical Investigation as a condition of Project approval will ensure that potential impacts associated with geology and soils are less than significant. No geology and soils mitigation measures are required.	GS-3. Adherence to Requirements of Geotechnical and Soils Engineering Study for former Dairylands and Agricultural Properties.	Project will comply. No conflict between Project and The Preserve EIR mitigation.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.7 - Hazards and Hazardous Materials

4.7.1 - Introduction

This section describes the existing setting regarding hazards and hazardous materials and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the following reports, which comprise Appendix G of this Draft EIR:

- Phase I Environmental Site Assessment, Stueve Brothers Dairy, Laguna Geosciences, Inc., February 24, 2004;
- Phase I Environmental Site Assessment and Phase II Soil Investigation, Stueve Brothers Dairy, URS, April 17, 2006; and
- Environmental FirstSearch Report, Edgewater Communities, Track Info Services, LLC, October 28, 2008.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. Comments regarding wildland fire hazard were contained in the Chino Valley Independent Fire District letter submitted to the City.

4.7.2 - Existing Conditions

The Project site is 273 acres in size. The more recent 2006 Phase I Environmental Site Assessment (ESA) prepared by URS addresses a 263-acre site. URS describes the site as being owned by Stueve Brothers but leased to Arthur Farms, who has subleased 52 of the 263 acres evaluated to M & J Dairy. For purposes of this evaluation, the 263-acre property evaluated by URS is divided as follows: 1) northern portion of the site, composed of the 52 acres leased by M & J Dairy; and 2) southern portion of the site, composed of 211 acres leased by Arthur Farms.

Surface soils within the Project site consist of coarse grade soils consisting of sand and silty sand to depths of 60 inches. Soils of this series are well drained with slow infiltration rates. Deeper soils extending down hundreds of feet consist of alluvial deposits of Pleistocene age (additional discussion of Project soils are contained in Draft EIR Section 4.2, Agricultural Resources, and Section 4.6, Geology and Soils). Rich organic manure and organic soils associated with dairy operations are present onsite. Areas of high methane concentration are, therefore, anticipated. There is also potential for nitrates/nitrites to be present in the sediments in the waste ponds.

Groundwater may be as shallow as 15 feet below the surface (bgs). Four irrigation and/or production water wells produce groundwater from 150 to 300 feet bgs. Two water wells are located immediately south of Chino Corona Road, one located in the central and western portion of the Project site, and one in the western portion near Cucamonga Avenue. Based on the topography, the anticipated

groundwater flow is south-southwest. (Draft EIR Section 4.8, Hydrology and Water Quality contains additional discussion of groundwater under the Project site.)

There are no municipal sewer services extended to the site and each residence is equipped with a septic tank and associated leach field.

Field Reconnaissance*Northern Portion*

The active onsite dairy consists of a milking barn, cow washing area, milking cow pens, maintenance shed, a feed barn, and a runoff pond. Four residential structures were observed. Three of the residences are located along Chino Corona Road and the fourth residence is located at the east-central portion of the agricultural fields. A fifth residence was formerly located along Chino Corona Road in the northwest corner of this property; however the residence was destroyed in a fire and has been demolished.

The milking barn consists of the following areas: control room with milk tank, milk chiller, and chemical storage areas; bathroom/first aid room; mechanical room with electrical panels, water conditioner, compressors and heaters; two cow washing areas; a milking parlor; two water tanks; vacuum pump room; feed silo; wastewater collection sump with pumps; and a compressor room with diesel generator, and a 100-gallon Aboveground Storage Tank (AST).

Cow washing areas are located to the west and east of the milking barn, with 48 sprinklers each. The wash water flows to area drains located in each wash area and then into a sump. No chemicals are reportedly added to the wash water.

The milking cow pens have a soil bottom. A subcontractor periodically scrapes the animal waste into piles, loads it into trucks, and hauls it offsite for disposal or composting.

The maintenance shed is located east of the milking barn. During site reconnaissance, the concrete floor of the shed appeared to be in good to fair condition with some oil staining. The shed contained metal debris, tires and a combination of empty and full 55-gallon drums and buckets.

A feed barn is located south of the animal pens and is used to store tractors, trucks, and animal feed.

Southern Portion

The southern portion of the property was previously used for production of feed crops (forage) for other dairies. Forage crops included corn, alfalfa, sorghum, oats, and barley. At the time of the URS site visit, the field appeared to have been recently tilled. Plant and weed growth is regularly tilled under except when there is sufficient rainfall to support a crop of winter wheat in the winter. Winter wheat was last grown on approximately 60 acres in the central portion of the site in Winter 2007/2008.

Wastewater ponds were observed within the southern portion of the Project site as follows: 1) in the eastern section; 2) in the southeastern section; 3) in the southwestern section; and 4) along the western Project boundary. A former lagoon, located in the central eastern portion of the Project site but never used, contained municipal waste at the time of site reconnaissance by URS. The Phase I Environmental Site Assessment and Phase II Soil Investigation prepared by URS in Appendix G (April 2006) includes a map of all ponds within the Project site (Figure 2).

A barn is located on the west-central portion of the property. The barn is primarily used to store parts and equipment. Some oil staining was present on the floor of the barn.

Hazardous Materials and Waste

Hazardous substances and wastes were observed or reported on the combined properties in the following locations at the time of URS site reconnaissance:

- The maintenance shed located east of the milking barn contained a combination of empty and full 55-gallon drums and buckets. A 55-gallon drum was lying on its side and oil was spilled around the drum.
- The control room in the milking barn, where the raw milk is chilled and placed in the storage tank, contains large stainless sinks where cleaning solutions are mixed and used to clean the milk lines, milking machine, and tank.
- Chemicals are stored in the barn located in the west-central portion of the property.
- The area around the barn was used for storage of trucks, vehicles, equipment, irrigation pipe, empty rusted drums, and debris. Some surface staining was present on the soil.

Storage Tanks

Evidence (i.e. fill ports or vent pipes) of underground storage tanks (USTs) and ASTs were observed on the property during reconnaissance.

- Two 500-gallon diesel ASTs are located near the animal pens on the northern portion of the property. No diesel staining was observed on the soil beneath the tanks.
- Two 1,000-gallon ASTs were present east of the barn located on the central portion of the property. One AST contained unleaded gasoline and the other contained diesel fuel. Some soil staining was present beneath the fuel nozzles.
- A compressor room is located south of the milking barn. The compressor room contains a diesel generator and one approximately 100-gallon AST. The AST appears to be empty; however, it may contain some residual fuel. The floor of the room is concrete and appears to be in good condition. Some staining is present beneath the generator.

- A 500-gallon unleaded gasoline AST is located at one of the residences at the northeastern corner of the property. No staining was observed beneath the tank. In addition, a 55-gallon drum with waste oil was observed at this residence. Some oil staining was present on the asphalt in the vicinity of the drum.

Solid Waste

Several areas of debris were observed during the site visit. The areas include a former lagoon located in the central eastern portion of the Project site (see URS report in Appendix G, Figure 2), the area located to the east of the barn, and the area located to the north of the runoff pond located within the northern portion of the property where the dairy operation is located).

Wastewater

The Stueve Brothers property comprising the Project site has historically managed runoff from four adjacent dairies. Wash-water and storm water would percolate, evaporate, or be dispersed through irrigation. Ponds for wastewater management are located: 1) at the onsite dairy (runoff pond); and 2) within the open lands (in the eastern section; in the southeastern section; in the southwestern section; and along the western Project boundary). A permit allowing use of the open lands to manage a 150-day supply of wash water from 7,500 milking cows from the adjacent dairies and accommodate excess runoff is currently in place.

An 18-inch underground concrete pipe conveys wastewater from the four adjacent dairies onto the eastern portion of the Edgewater property. The pipe discharges into the sump where it is pumped to the holding pond, located in the southeastern section of the site. Water from the holding pond is pumped and spread on the open land. Excess runoff is directed to the ponds located in the eastern section, in the southwestern section, and along the western Project boundary.

Wastewater is currently generated from several sources at the onsite milking barn. Dairy wastewater can be contaminated with manure, milk solids, ammonia, phosphorus, detergents, feed solids, antibiotics, and tank rise water.

Pits, Ponds, Lagoons, Septic Systems, Sumps, and Drains

Each of the residences has a septic leach field, as well as the barn. A sump is located at the eastern portion of the property, which collects wastewater, which is then pumped into a holding pond. A collection sump is located south of the milking barn. All the wastewater from the milking barn flows into the sump and is pumped to the runoff pond.

A former lagoon is present along the eastern edge of the dairy operation. This lagoon was designed to collect wastewater from the dairy, however, water did not flow to the structure and it was never used. The structure has been used to dispose of municipal waste including wood, green waste, tires, plastic and an empty 55-gallon drum.

Polychlorinated Biphenyls (PCBs)

URS observed several pole-mounted transformers located at the property. Except for one transformer, there was no evidence of staining.

Asbestos

Based on the date of building construction (prior to the 1970s), it is likely that asbestos containing building materials are present onsite.

Additional Concerns

Dairy operations result in the generation of manure and manure stockpiles, resulting in an increase in the fly population. Chemicals are used to control the flies, and herbicides are also used by dairy operations to control plant and algae populations in manure ponds and water ponds. Soil stockpiles are present on the property. A large manure stockpile is present east of the barn. The stockpile is covered with grass, which indicates that it has been there for an extended period of time. The URS investigation included soil sampling. Results indicated that soils beneath the former ASTs have not been impacted with total petroleum hydrocarbons (TPH), and the near surface soils in the southern area of the property have not been impacted with herbicides and pesticides. No additional concerns were noted during the URS site reconnaissance.

Chino Airport Safety Zone III

The Airport Comprehensive Land Use Plan for Chino Airport, adopted in 1992, delineates referral zones surrounding the airport and defines special land use requirements and development limitations. A portion of the northern area of the Project site occupied by the dairy operation (approximately 17 acres) is within Airport Safety Zone III. This zone encompasses an oval area around the Airport, extending approximately 10,000 feet from the airport, in which aircraft accidents and exposure to noise is minimal. Certain development limitations exist in this zone, while most land use types are acceptable. The remainder of the Project site is contained within the 800- and 900-foot elevation safety zones, where height restrictions are imposed.

The Chino Airport has been subject to oil and fuel spills in the past. Fuel storage at the Airport consists of four tanks: three 10,000-gallon tanks and one 20,000-gallon tank.

4.7.3 - Regulatory Setting

State

The California Department of Health Services - Toxic Substances Control Division (DTSC) implements and enforces federal and State laws regarding hazardous waste handling. DTSC regulates the generation, handling, storage, disposal, and transportation of hazardous waste, oversees the remediation of contaminated sites, and seeks to reduce the hazardous waste produced in California. While the scope of DTSC activities primarily focuses on commercial and industrial operations, DTSC also oversees waste evaluation programs and assists in waste determinations to identify what substances and in what concentrations are harmful. Household hazard waste (HHW) and agricultural

chemical collection programs focus on removing dangerous substances from homes and preventing their release into the environment through landfills, sewer systems, and illegal dumping. The California Hazardous Substances Control Law establishes regulations and incentives, which ensure that the generators of hazardous waste employ technology and management practices for the safe handling, treatment, recycling, and destruction of their hazardous wastes prior to disposal.

Local

The Chino Valley Independent Fire District (CVIFD) and the San Bernardino County Fire Department (SBCFD), Hazardous Materials Division, enforce state and federal laws regarding hazardous materials. Implementation and enforcement of hazardous materials and waste regulations are also handled by the Regional Water Quality Control Board - Santa Ana Region (with respect to potential surface or ground water contamination), and the South Coast Air Quality District (toxic air emissions).

The City of Chino has adopted a protocol for methane assessment and mitigation that requires project applicants for properties formerly used as dairies (among other uses) to provide the City of Chino Building Division and Public Works Department with a report for City review supplementing the Project geotechnical investigation and Phase I ESA that provides testing results within potential high methane concentration areas.

City of Chino General Plan

The City of Chino General Plan, Seismic and Public Safety Element, identifies general goals relating to public safety, presented in Table 4.7-1. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan. Safety related to seismic geologic hazards is discussed in Draft EIR Section 4.6, Geology and Soils. Safety related to flooding hazards is discussed in Draft EIR Section 4.8, Hydrology and Water Quality. In reference to the last General Goal below, crime prevention through site planning and development design would be addressed through the development review process.

Table 4.7-1: Seismic and Public Safety Element Goal

Reference	Description
General Goal	To reduce the loss of life, injuries, damage to property and social economic dislocations resulting from seismic geologic hazards.
General Goal	To prevent injury or loss of life and damage to property due to flooding hazards.
General Goal	To reduce loss of life, injuries, damage to property and natural resources due to wildland fires.
General Goal	To reduce loss of life, injury and loss or damage to property by considering crime prevention in site planning and development design.

The Preserve Specific Plan and EIR

The Preserve EIR found that, with mitigation, implementation of the Specific Plan would result in less than significant impacts for hazards and hazardous materials.

4.7.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether hazards and hazardous materials are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

- a.) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b.) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?
- c.) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d.) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e.) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working the project area?
- f.) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g.) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h.) 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?

4.7.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Project implementation would result in the clean-up of existing hazards and hazardous materials described in Section 4.7.2., and the utilization of common household hazardous materials, including household cleaners, deodorizers, personal products, landscaping products, pet care products, paint products, photographic chemicals, swimming pool chemicals, automotive products and fluids.

Routine Use and Accident Conditions

Impact 4.7-1:	Project implementation will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Project implementation will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. [CEQA Hazards / Hazardous Materials Threshold 7(a)] [CEQA Hazards / Hazardous Materials Threshold 7(b)]

Impact Analysis

The proposed Project is a residential community with museum/retail and church/private school uses that will not generate hazardous materials other than those typically associated with household products (e.g., household cleaners, deodorizers, personal products, landscaping products, pet care products, paint products, photographic chemicals, swimming pool chemicals, automotive products, and fluids). The City of Chino operates a household hazardous waste collection and reuse facility located at 5050 Schaefer Avenue and allows residents to deliver and properly dispose of their household hazardous wastes.

Grading and construction activities may involve the limited transport, storage, usage, or disposal of hazardous materials, such as the fueling/servicing of construction equipment. Such activity is short-term or one-time in nature and is subject to federal, State, and local health and safety requirements. There will be no transport of non-construction related hazardous materials to or from the Project site.

The presence of farm equipment, ASTs, and staining within the Project site, coupled with the dairy and agricultural uses, is indicative of the onsite use of petroleum products, insecticides, and pesticides. If known and unknown hazardous materials/situations onsite are not fully mitigated, future residents could be exposed to hazards or hazardous materials even after the dairy operation was removed, resulting in potentially significant impacts. Such potentially significant impacts could include asbestos and lead from building materials and paints in older structures, hazardous substances from agricultural uses, and/or petroleum products used or leaked onsite.

The existence of methane on the Project site is anticipated due to the presence of rich organic manure and organic soils associated with dairy operations. The Project Applicant would be required to comply with City of Chino protocol for methane assessment and mitigation. The methane protocol requires project applicants for properties formerly used as dairies (among other uses) to provide the City of Chino Building Division and Public Works Department with a report for City review (supplementing the Project geotechnical investigation and Phase I ESA) that provides testing results within potential high methane concentration areas. There is also potential for nitrates/nitrites to be present in the sediments in the waste ponds.

Implementation of the proposed Project will reduce the volume of standing water and liquid waste associated with the dairies, which serve as breeding grounds for mosquitoes.

Hazardous materials impacts related to past and current dairy and agricultural uses are considered potentially significant. Project implementation and resultant clean-up of identified environmental conditions would result in a beneficial hazardous materials impact.

Level of Significance Before Mitigation

Potentially significant. [CEQA Hazards / Hazardous Materials Threshold 7(b).]

Mitigation Measures

HHM-1 Prior to demolition of any onsite structures and prior to issuance of grading permits, the Applicant shall submit a site Remediation Program to the Building Division and Public Works Department for review and approval to address the existing hazardous materials identified in Section 4.7 of the Draft EIR. This Remediation Program shall:

- Incorporate the recommendations of the URS and Laguna Geosciences Phase I Environmental Site Assessments, and the URS Phase II Soil Investigation for testing and remediation not yet satisfied;
- Incorporate a plan for State-regulated abandonment of water wells onsite;
- Require the evaluation of onsite structures for the presence of asbestos and lead-based paint, and the removal of such materials according to the applicable regulations and guidelines established by the South Coast AQMD, Department of Toxic Substances Control, and the US Environmental Protection Agency; and
- Specify further soil testing once mass grading has occurred to determine if any soils contain elevated levels of nitrates/nitrites, and incorporate remediation measures to address elevated levels of nitrates/nitrites if discovered.

Level of Significance After Mitigation

Less than significant.

Schools

Impact 4.7-2:	The Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a proposed school. [CEQA Hazards / Hazardous Materials Threshold 7(c)]

Impact Analysis

Refer to Impact Analysis discussion for Impact 4.7-1. The Project site is not within 0.25 mile of an existing school. A private school associated with an onsite church is proposed by the Project. Handling of any hazardous materials within one-quarter mile of this church school site would be governed by regulations addressed in Section 4.7.3. Hazardous materials present within 0.25 mile of the proposed school would likely be typical household products (e.g., household cleaners, deodorizers, personal products, landscaping products, pet care products, paint products, photographic

chemicals, swimming pool chemicals, automotive products and fluids) and janitorial products associated with the church/school site. Impacts are considered less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Hazardous Materials Site Listing

Impact 4.7-3:	The Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. [CEQA Hazards / Hazardous Materials Threshold 7(d)]

Impact Analysis

The Project site is not located on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. No impact will occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Airports

Impact 4.7-4:	The Project would not result in a safety hazard from Chino Airport for people residing or working in the Project area. The Project is not within the vicinity of a private airstrip. [CEQA Hazards / Hazardous Materials Threshold 7(e)] [CEQA Hazards / Hazardous Materials Threshold 7(f)]

Impact Analysis

The Preserve EIR (Exhibit 5.6-1, Airport Noise & Safety Zone Overlay) plotted the noise and safety zones for Chino Airport within The Preserve Specific Plan area. An approximately 17-acre portion of the northern area of the Project site occupied by the dairy operation is within Safety Zone III and would be subject to development limitations that exist in this zone, although most land use types are acceptable. This area of the Project site within Safety Zone III is proposed for low-density residential uses and would not contain tall structures. Some consideration has been given by the Applicant to

locate the church facility in the northern portion of the Project site. Based on the plotting as shown in The Preserve EIR, the potential church location would not be within Safety Zone III. The remainder of the Project site is contained within the 800- and 900-foot elevation safety zones, where height restrictions are imposed. To estimate permitted building heights within these areas, the ground elevation is subtracted from either the 800- or 900-foot elevation. The remaining number is the maximum building height. For the sake of conservative analysis, the highest post-development elevation in the portion of the Project site closest to the airport of approximately 596' is used. A maximum elevation of 204' (800' minus 596') would be permitted within the 800-foot elevation. A maximum elevation of 304' (900' minus 596') would be permitted within the 900-foot elevation. Even considering objects such as antennas or a church steeple, these maximum heights should permit all proposed Project uses.

The Chino Airport has been subject to oil and fuel spills in the past. The FirstSearch database report (Appendix G) did not note any hazardous waste sites associated with the airport. Fuel storage consists of four tanks: three 10,000-gallon tanks and one 20,000-gallon tank.

State law requires that buyers or lessees of subdivided lands within proximity to Chino Airport be notified.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Emergency Plans

Impact 4.7-5:	The proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. [CEQA Hazards / Hazardous Materials Threshold 7(g)]

Impact Analysis

Implementation of the proposed Project would improve emergency response and evacuation routes in the Project area by installing circulation improvements and extending through access south below Chino Corona Road. The Project would be developed in compliance with the City Standardized Emergency System Multi-Hazard Functional Plan regarding the provision of, and accessibility to, emergency response personnel and vehicles. Any gated entries and/or traffic signals proposed by the Project would include emergency response signal control devices. A less than significant impact is expected to occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Wildland Fires

Impact 4.7-6:	Project implementation could expose people or structures to a significant risk of loss, injury or death involving wildland fires. [CEQA Hazards /Hazardous Materials Threshold 7(h)]

Impact Analysis

Project implementation will extend the perimeter of developed areas further south. The Project site is outside the areas that have been previously planned for development. This notwithstanding, development within the City of Chino is required to comply with the City's Building Standards and Fire Code, and all other current fire protection requirements. The Chino Valley Independent Fire District indicated in their December 2006 comment letter (see Appendix A) that a 100-foot fuel modification zone may be required at the perimeter of site development, indicating that they consider wildland fire to be a potential safety issue for the Project site. Multiple points of vehicular access and egress are required to all areas of the development. Any gated entries and/or traffic signals proposed by the Project would include emergency response signal control devices. The threat posed by wildland fire risk should be reduced by these measures to a less than significant level. No further mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.7-7:	The incremental impact of the Project, when added to the related past, present, or reasonably foreseeable future projects, would not result in cumulative impacts related to hazards and hazardous materials.

Impact Analysis

The incremental impact of the proposed Project, when added to the related past, present, or reasonably foreseeable future projects listed in Section 3, Project Description, would not result in cumulative impacts related to hazards and hazardous materials. Compliance with federal, State, and

local regulations is required concerning the handling, transport, and disposal of hazardous materials and wastes. Projects converting former dairy lands to other uses are required to mitigate their own hazardous materials impacts. With further development within the Chino Airport vicinity, additional populations will be exposed to some level of risk associated with aircraft activities and hazards. However, safety zones have been established to protect future uses and reduce hazards to an acceptable level of risk. No significant cumulative impact is anticipated.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.7.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.7-2 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.7-2: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Hazards and Hazardous Materials

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
HHM-1. Remediation Program Requirement to address the Existing Hazardous Materials identified in Section 4.7 of the Draft EIR. Project Environmental Site Assessments prepared.	HM-3. City Approval of Project Environmental Site Assessments and Project Compliance with Report Recommendations.	Project has complied with Environmental Site Assessment requirement and will prepare, submit, and adhere to Project Remediation Program. No conflict between Project mitigation and The Preserve EIR.
Project site and water features are south of Chino Airport and well outside approach and departure Runway Protection Zones.	HM-1. Aircraft/Waterfowl Hazards And Prohibition of Large Water Features East of Chino Airport.	No conflict between Project and The Preserve EIR mitigation.

Table 4.7-2 (Cont.): Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Hazards and Hazardous Materials

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
Project structures are within height restrictions of 800- and 900-foot elevation Primary Safety Zones. Project structures can comply with Preserve EIR mitigation height limit of 160' outside Chino Airport Runway Protection Zones.	HM-2. Maximum Building Height Outside Chino Airport Runway Protection Zones.	No conflict between Project and The Preserve EIR mitigation.
HHM-1. Remediation Program Requirement to address the Existing Hazardous Materials identified in Section 4.7 of the Draft EIR, including Asbestos and Lead-Based Paint.	HM-4. Asbestos and Lead-Based Paint Identification and Remediation.	Project will prepare, submit, and adhere to Project Remediation Program. No conflict between Project and The Preserve EIR mitigation.
Project compliance with Hazardous Materials Regulations is required by law.	HM-5. Compliance with Hazardous Materials Regulations.	No conflict between Project and The Preserve EIR mitigation.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.8 - Hydrology and Water Quality

4.8.1 - Introduction

This section describes the existing setting with respect to hydrology and water quality and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information obtained from numerous documents, as follows. Complete references for all listed documents are contained in the Section 11, References of this Draft EIR.

- The Preserve Specific Plan and Final EIR;
- City of Chino General Plan;
- Chino Creek Integrated Plan;
- County of San Bernardino Storm Water Program: Model Water Quality Management Plan Guidance;
- Prado Basin Master Plan and Environmental Impact Statement;
- Mill Creek Wetlands Recreation Plan;
- Amendment to The Preserve Specific Plan;
- City of Chino Storm Drain Master Plan Update Report, Subarea 2;
- Edgewater Master Plan of Drainage;
- Preliminary Hydrology and Hydraulic Calculations for City of Chino Edgewater Project, included in this EIR in Appendix H (Final report version still to be reviewed and approved by the City);
- Preliminary Water Quality Management Plan (PWQMP) for Edgewater Lake Communities, also included in this EIR in Appendix H (Final report version still to be reviewed and approved by the City);
- Draft EIR for the Specific Plan for the Development of State Surplus Property and Amendment to the Redevelopment Plan for the Merged Chino Redevelopment Project Area, Chino, California; and
- Final EIR for Subarea 29 (Hettinga) Specific Plan, City of Ontario, San Bernardino County California, SCH# 2004011009.

Comment letters on the NOP of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. California RWQCB, IEUA, and Orange County Water District submitted comment letters that addressed hydrology and water quality. The issues raised by these commentors are addressed below.

4.8.2 - Existing Conditions

Surface Runoff and Drainage Characteristics

The Project site is located on the broad, gentle sloping alluvial plain of the Chino Basin. The principal drainage course of the lower Chino Basin is the Santa Ana River (SAR), located south of the Project site within the Prado Flood Control Basin. The SAR watershed encompasses 2,650 square miles, within which the SAR extends some 69 miles from its headwaters in the San Bernardino Mountains to its outlet at the Pacific Ocean. The Santa Ana River enters the Chino Basin at the Riverside Narrows and flows along the southern boundary to the Prado Basin where it is eventually discharged through the outlet at Prado Dam. Mill Creek and Chino Creek are two principal tributaries to the SAR. Sheet flows during major storm events are ultimately conveyed to the Santa Ana River at Prado Basin via either Mill Creek or Chino Creek.

The Project site is contained within a study area comprising 8.8 square miles addressed in the Storm Drain Master Plan Update Report, Subarea 2 (Bureau Veritas North America, Inc., November 2007, contained in Appendix K). The area studied by Bureau Veritas in the Storm Drain Master Plan Update Report is comprised of agricultural and open space property adjacent to Cucamonga Creek Channel and upstream of the United States Army Corps of Engineers (USACE) Prado Flood Control Basin. Over half (approximately 4.5 square miles) of this Bureau Veritas study area lies below the 566' High Water Elevation of the Prado Basin, and therefore within the impoundment area of Prado Dam.

Currently, storm water on the Project site is managed using manmade ponds. The Project site generally slopes from north to south.

Surface Water Quality

The Project site presently contains a system for the collection and handling of wastewater associated with dairy operations. Historically, wastewater and storm water runoff from four adjacent dairies was also accepted. Water was managed using onsite percolation/evaporation and/or irrigation through the use of manmade ponds.

Historic agricultural and dairy activities have affected surface water quality in the Project area. The application of fertilizers and insecticides and the presence of animal waste products are non-point sources of contaminated storm water runoff. Agricultural and dairy activities affect surface water quality, particularly in terms of total dissolved solids (TDS) and nitrates.

Groundwater

Depth to groundwater beneath the Project site ranges in depth from approximately 6 to 40 feet below the existing ground surface, and slopes gently to the south and east. Perched ground water was also found across the site in localized areas during the onsite geotechnical investigation (GMU, 2007). The shallowest groundwater elevations occur along the site's southern and eastern boundaries. The

current groundwater table appears to be up approximately 20 feet higher in the northern portion of the site.

Four irrigation and/or production water wells were observed on the Project site during the Phase I Environmental Site Assessment conducted by URS Corporation (2006).

Groundwater quality in the Project area has been affected by historic agricultural and dairy activities. Groundwater within the Project area is known to contain high concentrations of nitrate and TDS from historical agricultural and dairy activities.

Floodways and 100-Year Flood Zone

The elevation of the Project site ranges from approximately 508 to 579 feet above mean sea level (msl). Current elevations within the site relating to flood inundation levels are depicted in Exhibit 3-6.

The USACE maintains land use control over those properties within the Prado Flood Control Basin for which it maintains flowage easements, which includes the Project site. The 556' elevation line represents the existing USACE flowage easement line, also known as the 1941 USACE Recorded Easement for Flood Inundation (see Exhibit 3-6). The 566' elevation line represents the High Water Elevation of the Prado Basin, delineating the upper limit of the Prado Dam inundation area. The portion of the Project site that is below the 566' elevation is presently within the Prado Dam inundation area.

Uses that are considered to be appropriate by USACE within the Prado Dam inundation area, such as habitat, active and passive recreation, agricultural and equestrian uses, may be located below the 566' dam inundation elevation based on potential flooding constraints. The primary criterion used by USACE to determine if a structure is appropriate in the inundation area is whether it is capable of supporting human habitation.

100-year flood prone areas are identified by the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) and the Prado Basin Master Plan and Environmental Impact Statement (USACE, 2005). Both the FIRM and the Flood Inundation Frequency Plan within the Prado Basin Master Plan and Environmental Impact Statement indicate that the 100-year flood elevation coincides with the 550' elevation line, and that flood prone areas occur in the vicinity of Mill Creek.

4.8.3 - Regulatory Setting

Federal

Clean Water Act

Section 303 of the Federal Clean Water Act (CWA) requires states to adopt water quality standards for all surface waters of the U.S. Water quality standards are typically numeric, although narrative

criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards (see following description of State Porter-Cologne Water Quality Control Act). Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are attained when designated beneficial uses are achieved and water quality objectives are being met.

Section 402 of the Federal Clean Water Act mandates that certain types of construction activity comply with the requirements of the Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) storm water program. Construction activities that disturb one or more acres of land must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit), which is issued by the Santa Ana Regional Water Quality Control Board (RWQCB).

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. FEMA issues flood insurance rate maps for communities participating in the National Flood Insurance Program (NFIP). These maps delineate flood hazard zones in the community. Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and economics. It requires:

- Avoidance of incompatible floodplain development;
- Consistency with the standards and criteria of the NFIP; and
- Restoration and preservation of the natural and beneficial floodplain values.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969, which became Division 7 of the California Water Code, authorized the State Water Resource Control Board (SWRCB) to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirement of the CWA Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and Waste Discharge Requirements (WDRs). Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. Beneficial uses consist of all the various ways that water can be used for the benefit of people and/or wildlife. The Porter-Cologne Act was later

amended to provide the authority delegated from the Environmental Protection Agency (EPA) to issue NPDES permits regulating discharges to surface waters of the United States.

Regional

Santa Ana Regional Water Quality Control Board

Beneficial uses and water quality objectives for surface water and groundwater resources are established in the water quality control plans of each RWQCB as mandated by the state Porter-Cologne Act and CWA. The RWQCBs primarily implement basin plan policies through issuing waste discharge requirements for waste discharges to land and water. The RWQCBs also implement the CWA Section 303(d) Total Maximum Daily Load (TMDL) process, which consists of identifying candidate water bodies where water quality is impaired by the presence of pollutants. The TMDL process is implemented to determine the assimilative capacity of the water body for the pollutants of concern and to establish equitable allocation of allowable pollutant loading within the watershed. CWA Section 401 requires an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to obtain a water quality certification (or waiver) from the applicable RWQCB.

The Santa Ana RWQCB sets water quality standards for all ground and surface waters within its region. The City of Chino is within the jurisdiction of the Santa Ana RWQCB.

The Santa Ana RWQCB has prepared a Water Quality Control Plan (Basin Plan) that includes 2,800 square miles of the inland watersheds of San Bernardino, Riverside, and Orange Counties. The RWQCBs are also responsible for administering the NPDES permit program, which is designed to manage and monitor point and nonpoint source pollution. NPDES storm water permits for general construction activity are required for projects that disturb more than one acre of land. Municipal NPDES storm water permits are required for urban areas with populations greater than 100,000.

The general NPDES storm water permits for general construction activities require project applicants to file a Notice of Intent (NOI) with the RWQCB to discharge storm water, and to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for projects that will disturb greater than 1 acre of soil. The SWPPP would include a site map, description of storm water discharge activities, and Best Management Practices (BMPs) that will be employed to prevent water pollution. It must describe BMPs that will be used to control soil erosion and discharges of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. It must demonstrate compliance with local and regional erosion and sediment control standards, identify responsible parties, provide a detailed construction timeline, and implement a BMP monitoring and maintenance schedule.

Chino Basin Watermaster

The Chino Basin Watermaster (CBWM), created in 1978, is the entity charged with administering adjudicated water rights and managing groundwater resources within the watershed and groundwater

basin known as the Chino Groundwater Basin. The CBWM's mission is to manage the Chino Groundwater Basin in the most beneficial manner and to equitably administer and enforce the provisions of the Chino Basin Judgment.

Prado Basin Master Plan

The Prado Dam Basin (Basin) is located at the confluence of the Santa Ana River, Chino Creek, Cucamonga Creek and Temescal Wash. The Basin lies within portions of both Riverside and San Bernardino Counties and is bordered by the City of Chino Hills to the northwest and west, the City of Corona to the south and east, and the City of Norco to the east. The Prado Basin Master Plan provides guidance for the balanced use, development, and management of the natural and manmade resources of the Prado Dam Basin. The Prado Basin Master Plan: 1) addresses flood reduction; 2) identifies environmentally sensitive areas and multiple-resource management areas for continued and future use; 3) provides conceptual guidance for recreation development for areas located primarily in upland portions of the Prado Basin; and 4) addresses potential land uses on USACE lands.

Prior to the increase in size of the Basin from the 556' elevation line to the 566' elevation line by approximately 1,660 acres, the United States Army Corps of Engineers (USACE) administered 7,300 acres of federally owned lands in the Basin, most of which are leased out for recreation purposes. Within the Basin's 556' limit, 4,823 acres had been set aside for recreation, with 1,041 acres developed. Riparian habitat (mostly willow woodland) occupied 4,100 acres. Approximately 2,400 acres in the Basin are owned by the Orange County Water District.

Chino Creek Integrated Plan

The Chino Creek Integrated Plan (CCIP), prepared for the Inland Empire Utilities Agency (IEUA) and the Orange County Water District (OCWD), focuses planning attention on the lower Chino Creek area of the Prado Basin as a step toward preserving and restoring the Prado Basin and maximizing its value to the community. The goal of the plan is to identify "multi-barrier" strategies to reduce pollutants and provide multi-purpose opportunities. "Multi-barrier" refers to a series of measures from upstream to downstream along the individual creeks and drainage channels tributary to the Prado Dam Basin in the lower Chino Creek watershed that incrementally improve water quality by posing as a barrier to pollutants. Each measure can be considered a stand-alone project, but the collective implementation of the measures would form a system of water quality improvement. Multi-purpose opportunities refer to projects that, in addition to water quality benefits, contribute to flood protection, habitat improvements, public use, and education. The primary objectives include water quality improvement, flood control, and restoration of ecological functions and values with the opportunity to improve passive recreation. The CCIP study area consists of five planning areas that span approximately 6,500 acres within the cities of Chino and Chino Hills in San Bernardino County. The Edgewater Communities Project site is within the Mill Creek Planning Area. The CCIP identifies the Edgewater Project as a future proposed use within the privately-owned Project site, and notes Project potential to provide opportunity for community connection with Mill Creek as a

valuable natural and recreational resource. As a non-regulatory plan, the CCIP requires a cooperative approach among multiple jurisdictions.

Mill Creek Wetlands Recreation Plan

The Mill Creek Wetlands Recreation Plan (MCWRP), proposed by the City of Ontario, is a plan to construct a 200-acre wetland recreation project that consists of a regional natural treatment system designed to provide water quality protection from first flush storm water and urban runoff from portions of the Cucamonga Creek and Mill Creek watersheds before discharge into the Prado Basin. The intent of the MCWRP is to: 1) treat approximately 85% of the low flow from the Cucamonga Creek watershed; and 2) conserve natural open space for recreation as well as habitat restoration and ecological protection. It is anticipated that the MCWRP would provide capacity to accommodate City of Chino flows and treat first flush storm water from Edgewater and other developments within The Preserve.

Local

City of Chino Storm Water Program

The Federal Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) permit program in 1972. The 1987 Amendment to the Clean Water Act required municipalities to obtain NPDES permits for storm water discharges to storm drain systems. San Bernardino County has been issued a municipal NPDES storm water permit (Order No. R8-2002-0012, NPDES Permit No. CAS618036), and the City of Chino is included as a co-permittee under this permit. This regional permit specifies when and how Water Quality Management Plans (WQMPs) should be prepared, identifying site design, source control, and treatment control BMPs.

During project review, approval, and permitting, the City of Chino requires new development to address the quality and quantity of storm water runoff through the incorporation of permanent (post-construction) BMPs in project design.

City of Chino General Plan

The City of Chino General Plan, Conservation/Open Space Element (December 1990), identifies the following goal and policies relating to hydrology/water quality, as presented in Table 4.8-1. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.8-1: Conservation/Open Space Element Goal and Policies

Reference Conservation/Open Space Element	Description
Goal G5-14	Maintain Federal, State and Local Water Quality Standards - To ensure that the City's water supply maintains federal, state and local water quality standards.
Policy P5-14.1	Avoid Contamination of Water Supply - To avoid contamination of the City's water supply and water distribution system caused by residential, commercial and industrial land uses.
Policy P5-14.2	Stringent Review Procedures - To provide stringent review procedures for land uses which have the potential for generating hazardous waste and contaminating the City's water supply.

The Preserve Specific Plan and EIR

The Preserve EIR found that, with mitigation, implementation of the Specific Plan would result in less than significant impacts for flooding, hydrology, and water quality. Specific mitigation measures addressing the flooding, hydrology, and water quality impacts of Specific Plan implementation are listed later in this section in Table 4.8-4.

4.8.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to hydrology and water quality are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a.) Violate any water quality standards or waste discharge requirements?
- b.) 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 which would not support existing land uses or planned uses for which permits have been granted)?
- c.) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- d.) 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, which would result in flooding on- or off-site?
- e.) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?
- f.) Otherwise substantially degrade water quality?

- g.) 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?
- h.) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?
- i.) 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?
- j.) Inundation by seiche, tsunami, or mudflow?

4.8.5 - Project Impacts and Mitigation Measures

This section discusses potential hydrology and water quality impacts associated with the development of the Project. Required compliance with all applicable federal, State, and local regulations and permit conditions governing hydrology and water quality, including but not limited to those items in the following list, reduce the need for additional mitigation: 1) State's General Permit for Construction Activities; 2) Federal EPA's National Pollutant Discharge Elimination System (NPDES) storm water program permit; 3) Storm Water Pollution Prevention Plan (SWPPP) for projects disturbing more than one acre; and 4) Water Quality Management Plan (WQMP) specifying site design, source control, and/or structural treatment control Best Management Practices (BMPs) with assigned and enforceable maintenance responsibilities. Additional mitigation measures specific to hydrology and water quality are not required.

Table 4.8-2 displays a comparison for the Project site of existing storm event runoff against the proposed runoff condition under The Preserve Specific Plan as amended for the Edgewater Communities Project. Runoff estimates for storm events for development of the Project site under The Preserve Specific Plan (2003) can be considered similar to the existing runoff condition detailed below. Since the 2003 Specific Plan only allows 3.65 acres of residential development, the amount of impervious surface would be limited, and ample opportunities for percolation would be provided.

Table 4.8-2: Comparison of Existing Condition Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

Storm Event	Existing Runoff Condition (Acre-Feet of AF)	Proposed Runoff Condition (Acre-Feet or AF) ¹	Difference
2- year	2.4	8.8	6.4 AF Increase
5-year	4.9	13.7	8.8 AF Increase
10-year	21.8	20.2	1.6 AF Decrease
100-year	80.3	52.2	28.1 AF Decrease
Notes: ¹ For all storm events in the developed condition, approximately 8.8 AF of runoff is routed to the detention/infiltration basins. Source: Huitt-Zollars, January 2008.			

Water Quality Standards and Requirements

Impact 4.8-1:	The Project will not violate any water quality standards or waste discharge requirements. The Project will not otherwise substantially degrade water quality. [CEQA Hydrology and Water Quality Thresholds 8(a) and 8(f)]

Impact Analysis

Construction Phase

During grading and construction operations, large land areas will be disturbed which may then become susceptible to wind or water-induced erosion and sediment loss. Excess sedimentation in receiving waters can contribute to water quality impairment. Construction sites greater than 1 acre in size are regulated under the state's General Permit for Construction Activities. This permit requires the discharger to eliminate or minimize sediments and other pollutants from discharging into storm water runoff from their construction sites through appropriate best management practices (BMPs) implemented during and after construction. Mill Creek (Prado Area), or the southerly portion of the Cucamonga Creek channel, is impaired for nutrients and total suspended solids (TSS) based on the CWA 303(d) list. Cucamonga Creek Channel/Mill Creek discharges into Reach 3 of the Santa Ana River, which is also listed on the CWA Section 303(d) list as impaired for pathogens.

A sampling and analysis program must be established for construction activities which discharge storm water directly into a water body listed pursuant to Section 303(d) of the Clean Water Act as impaired for sedimentation/siltation or turbidity. A Preliminary WQMP (PWQMP), prepared by Huitt-Zollars, Inc. (January 2008) for the proposed Project and contained in Appendix H, indicates that sediments could potentially be generated by the Project site and discharged in Mill Creek (Prado Area). The PWQMP also indicates that the Mill Creek (Prado Area) segment is already impaired with similar pollutants. Therefore, during construction, a sampling and monitoring plan for sedimentation could be required. A sampling and analysis program could also be required during construction if one of the following instances occurs:

- Visual inspections indicate that there has been a break, malfunction, leakage, or spill from a BMP that could result in the discharge of pollutants in storm water; and/or
- Storm water comes into contact with soil amendments, exposed stockpiles of construction materials, or contaminated soils, and this storm water is allowed to discharge offsite.

Project implementation will require that an NPDES storm water permit for construction activities be obtained, and that the Project be in compliance with the requirements of the permit. A construction-phase SWPPP will also be required, and shall identify appropriate structural and non-structural BMPs to be implemented during Project construction.

The Phase I Environmental Site Assessments conducted for the Project site noted the presence of structures onsite constructed prior to the 1970s that could potentially contain asbestos and lead-based

paint in building materials. Onsite residences also have residential leach fields as septic systems. The General Permit for Construction Activities requires adherence during construction to appropriate BMPs. Project mitigation measures for Hazards and Hazardous Materials (see Section 4.7) will assure that demolition of the existing structures and removal of septic facilities will not introduce pollutants into the environment which could subsequently be transported to receiving waters.

Based on the various regulatory requirements, construction-related impacts are considered to be less than significant.

Operational Phase

San Bernardino County has issued a Storm Water Program Water Quality Management Plan Guidance document (June 2005, County WQMP Guidance document). The County WQMP Guidance document indicates that the proposed Project is a 'Category Project,' and is therefore required to develop and implement a project-specific Water Quality Management Plan (WQMP) that reflects County WQMP Guidance. The PWQMP prepared for the Project identifies pollutants of concern and their potential for generation by the proposed Project (see Table 4.8-3). Mill Creek (Prado Area) is currently experiencing impairment for bacteria/virus, nutrients, and sediments.

Table 4.8-3: Pollutants of Concern

General Pollutant Category	Expected to Occur with Residential Land Use
Bacteria/Virus	Yes
Heavy Metals	Yes
Nutrients	Yes
Pesticides	Yes
Organic Compounds	Yes
Sediments	Yes
Trash and Debris	Yes
Oxygen Demanding Substances	Yes
Oil and Grease	Yes
Source: Preliminary Water Quality Management Plan, Huitt-Zollars, Inc., January 2008.	

The PWQMP includes provisions for site design BMPs, source control BMPs, and structural treatment control BMPs in order to minimize pollutants of concern in storm water discharges from the Project site. Project design includes four storm drain systems that will intercept site runoff and ultimately outlet the runoff into three detention/infiltration basins located within the Project site (two along the eastern boundary, and one in the southwest corner of the site) that will serve both water quality and flood control purposes (see Exhibit 4.8-1). The County WQMP Guidance document indicates that such basins shall treat nutrients, trash and debris, oxygen-demanding substances, bacteria and viruses, oil and grease with a medium to high level of effectiveness. Structural treatment

controls BMPs may include, but are not limited to, natural filtration, common area efficient irrigation, common area runoff-minimizing landscape design, velocity dissipation devices, oil/grease separator, alternative building material, inlet trash racks, and catch basin stenciling. Other non-structural BMPs may include education for property owners as well as tenants and occupants, activity restrictions, common area landscape management, litter control, catch basin inspection, and street sweeping.

The inclusion of Project storm drain and water quality systems as well as the provision of other storm water BMPs outlined within the PWQMP will treat future storm water runoff to levels of water quality deemed acceptable by the Santa Ana RWQCB, as well as by the County of San Bernardino. Less than significant impacts to water quality will result.

The proposed Project includes five lakes, planned to offer varying degrees of open space and recreational opportunities. No swimming will be allowed, but the lakes will be suitable for fishing. Lakes 1 and 2 could support non-motorized boating (see Exhibit 3-8). The lakes will be filled with recycled water and maintained by the Project Homeowner's Association. Clean water within the lakes is to be maintained by a system of pumps, filters, and aeration equipment to permit recreational uses as described, and sustain fish, plants, and animals within the lakes and along the lake edges.

The Project site currently contains an active dairy operation. Project implementation would result in the dairy operations being removed, and the removal and disposal of the dairy wastes in a manner in accordance with local regulations. The upper foot of material in all dairy areas will be removed because it is predominantly dairy waste. Undocumented fill, native soil, and low-density older alluvium located below dairy wastes would also be removed. These corrective grading removals are anticipated to be from 5 to 11 feet in depth below the existing ground level. Grading will extend to sufficient depths until dense, older alluvium is encountered. The removal of these contaminated soils is considered a beneficial water quality impact in that this continued source of nutrients, suspended solids and pathogens would be eliminated as a source of pollution for surface and groundwater.

Project Compatibility with Regional Plans Addressing Water Quality

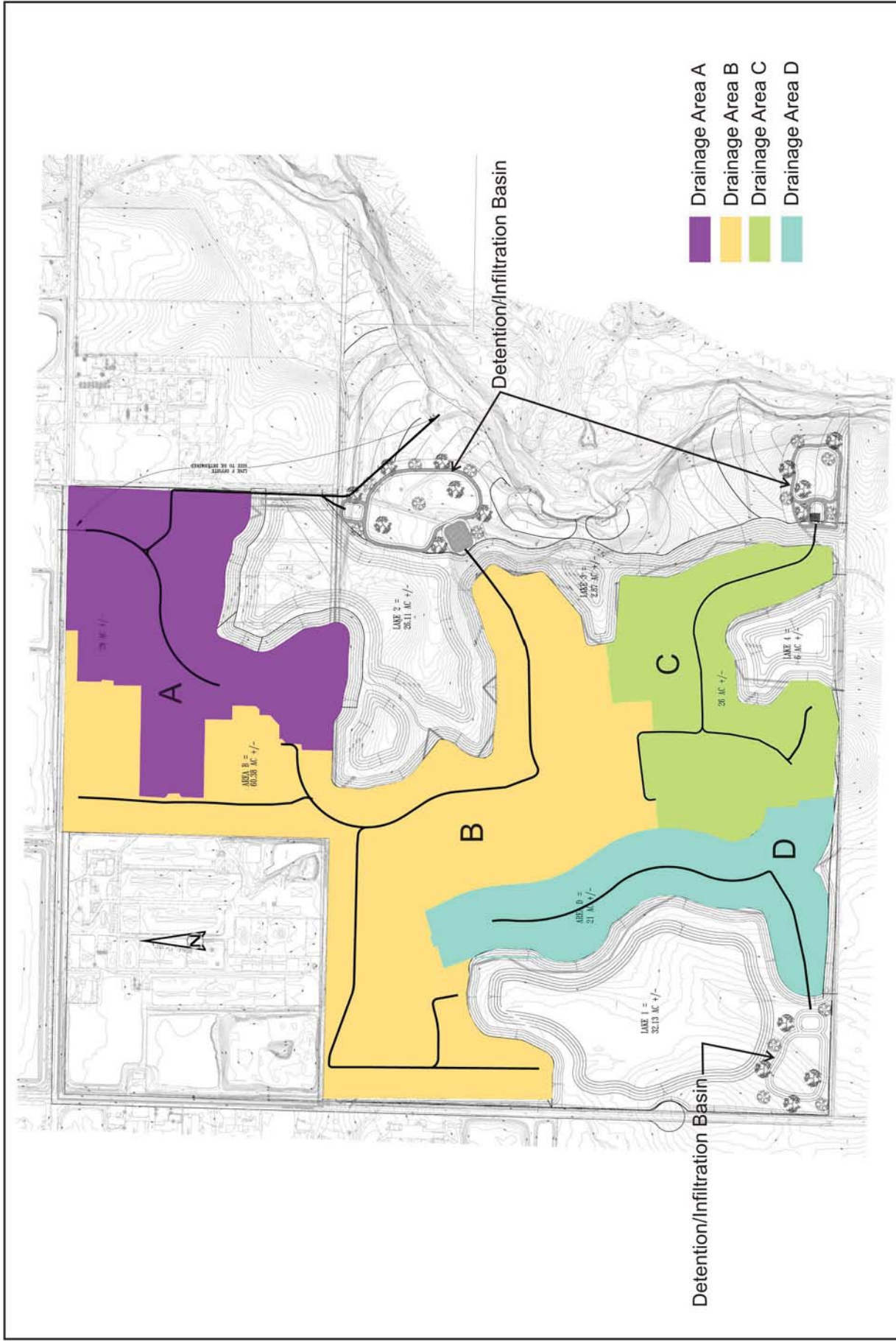
The Chino Creek Integrated Plan and Mill Creek Wetlands Recreation Plan both address water quality. Proposed Project compliance with water quality standards and regulations during the construction and operational phases of the Project, and detention and infiltration of Project runoff within onsite basins are in keeping with the provisions of the Chino Creek and Mill Creek regional plans addressing water quality. No conflict would occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.



Source: Huitt-Zollars, Inc., February 11, 2008.



MAP NOT TO SCALE

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Exhibit 4.8-1

Proposed Project Master Plan of Drainage

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Level of Significance After Mitigation

Less than significant.

Groundwater Supplies and Recharge

Impact 4.8-2:	The Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. [CEQA Hydrology and Water Quality Threshold 8(b)]

Impact Analysis

Project implementation includes the construction of five lakes that will collect precipitation, reduce the quantity of storm water runoff from the Project site, and allow the collected water to infiltrate to the aquifer below. Additionally, three detention/infiltration basins to be constructed within the Project site will allow collected flows to infiltrate into the underlying aquifer.

Hydrological modeling conducted by Huitt-Zollars shows that after the Project is constructed, during moderate to severe storm events (10-year and 100-year), the presence of the lakes and basins onsite will result in less storm water runoff than during pre-construction conditions.

The proposed Project would have a dual (potable and recycled) water system. A standalone potable system has been described for the Project. Based on the Water System Master Plan Update (MWH, October 2007), this system will obtain water from a water well. The specific location of this well has not been determined. The well would be sized to meet the Maximum Day Demand (MDD) of the proposed Project.

A Water Supply Assessment (WSA) has been prepared in association with the proposed Project (Dudek 2007, see Appendix K) to document the sufficiency of available water supply for the City and the Project. The City of Chino relies on City-produced local groundwater as one of four sources of its long-term water supply. Groundwater is produced from the Chino Groundwater Basin (Basin). Management of the Basin is accomplished by the Chino Basin Watermaster. The City's current groundwater production right is a share of the safe yield of the Basin. The WSA identifies sufficient water supply and reliability to the City during normal, single-dry, and multiple dry years over a 20-year planning period, including a sufficient water supply for the proposed Project. Planned build-out of the proposed Project is year 2019, well within the 20-year planning period. Groundwater was addressed in the WSA as one of the four sources of the City's long-term water supply.

Project implementation will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. A less than significant impact will occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Drainage Pattern: Erosion or Siltation

Impact 4.8-3:	The Project could 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 which would result in substantial erosion or siltation on- or off-site. [CEQA Hydrology and Water Quality Threshold 8(c)]

Impact Analysis

Project implementation will alter the existing drainage pattern of the site to allow surface runoff within the Project site to drain into an underground storm drain system that is designed to accommodate projected surface flows within the Project site (see Exhibit 3-13 for Project tie-in to Preserve Storm Drainage Plan, and Exhibit 4.8-1 for Proposed Project Master Plan of Drainage). Project implementation will require a SWPPP, which will control erosion due to grading and storm waters during the construction phase.

Table 4.8-2 presents storm runoff in acre-feet for four different storm events. Flows during a 100-year storm event from the site after development are estimated to be approximately 52.2 acre-feet. The proposed storm drain system will convey surface runoff to Mill Creek. The segment of Mill Creek bordering the Project site on the east is natural and unimproved so increased flows could cause offsite erosion.

Project implementation will not ultimately increase the runoff generated by the Project site due to the construction of the onsite lakes and detention/infiltration basins. Each of the four storm drain lines will drain to a detention/infiltration basin and then outlet into areas proposed as recreational open space before sheet flowing into Mill Creek (see Exhibit 4.8-1).

A WQMP will be implemented, per State and local guidelines as part of Project development and operation. The WQMP will provide for natural conveyance/treatment systems, storm drain clarifiers, and detention/infiltration basins to help improve the quality of the Project site runoff and help reduce the overall runoff from the developed site. All flows exiting the Project site would be treated by the WQMP-specified train system of treatment control BMPs. The five artificial lakes will also serve to capture, hold, and allow the infiltration of precipitation onsite. Project implementation is not expected to substantially alter existing drainage patterns in a manner that would result in substantial erosion or siltation on or offsite. A less than significant impact is anticipated.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Drainage Pattern: Flooding

Impact 4.8-4:	The Project could 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 which would result in flooding on- or off-site. [CEQA Hydrology and Water Quality Threshold 8(d)]

Impact Analysis

Please see Impact 4.8-3 analysis. That portion of the Project site that is currently below the 566' elevation and within the impoundment area of Prado Dam (see Exhibit 3-6) can potentially be flooded with ponding storm water during major storm events. Project implementation will alter the existing drainage pattern of the site to allow surface runoff within the Project site to drain into an underground storm drain system that is designed to accommodate projected surface flows within the Project site. The storm drain system will channel storm water runoff into three proposed detention/infiltration basins. Hydrological modeling for the site, contained in the Preliminary Hydrology and Hydraulic Calculations for City of Chino Edgewater Project included in Appendix H and summarized in Table 4.8-2, shows that through Project design, with the incorporation of the proposed artificial lakes and detention/infiltration basins, the volume of surface runoff in storm events equal to or larger than 10-year storm events after Project completion would be less than existing levels. By retaining storm water flows onsite and channeling the flows into a storm drain and detention system, the Project would reduce the potential for flooding, both on or off site.

Information provided by Huitt-Zollars, Inc., Project Engineer, indicates that the proposed Project plans to modify topography on the Project site so that approximately 141 acres are above the 566' elevation (inundated water surface elevation behind Prado Dam), and approximately 132 acres are below the 566' elevation. (Existing breakdown is 35 acres above the 566' elevation and 238 acres below the 566' elevation.) No habitable structures are proposed by the Project below the 566' elevation, in conformance with federal law (see Exhibit 4.8-2). The City of Chino Storm Drain Master Plan Update Report, Subarea 2 (contained in Appendix K) indicates that onsite re-grading can modify the impoundment area as long as any impacts to the downstream areas or to the Prado Basin resulting from the re-grading are mitigated as part of the proposed Project. USACE requires a 1:1 replacement of storage volumes below the 566' elevation. The explanation of the USACE Flood Easement Exchange Program, as contained in Section 3, Project Description, describes the process by which the applicant can apply to have the 1941 Recorded Easement for Flood Inundation, correlating to the 556' elevation line, removed from the Project site. Flooding impacts are expected to be less than significant.

Project Compatibility with Regional Plans Addressing Flood Protection

The Prado Basin Master Plan and Chino Creek Integrated Plan (CCIP) both address flood protection. The Prado Basin Master Plan addresses suitable land uses within flood prone areas and flood reduction. The CCIP identifies flood control as a primary objective, and addresses strategies to contribute to flood protection. Project design, elevating building pads above the 566' elevation line representing the upper limit of the Prado Dam inundation area, and preservation of Mill Creek within the Project site as open space are in keeping with the provisions of the Prado Basin and Chino Creek regional plans addressing flood protection. No conflict would occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

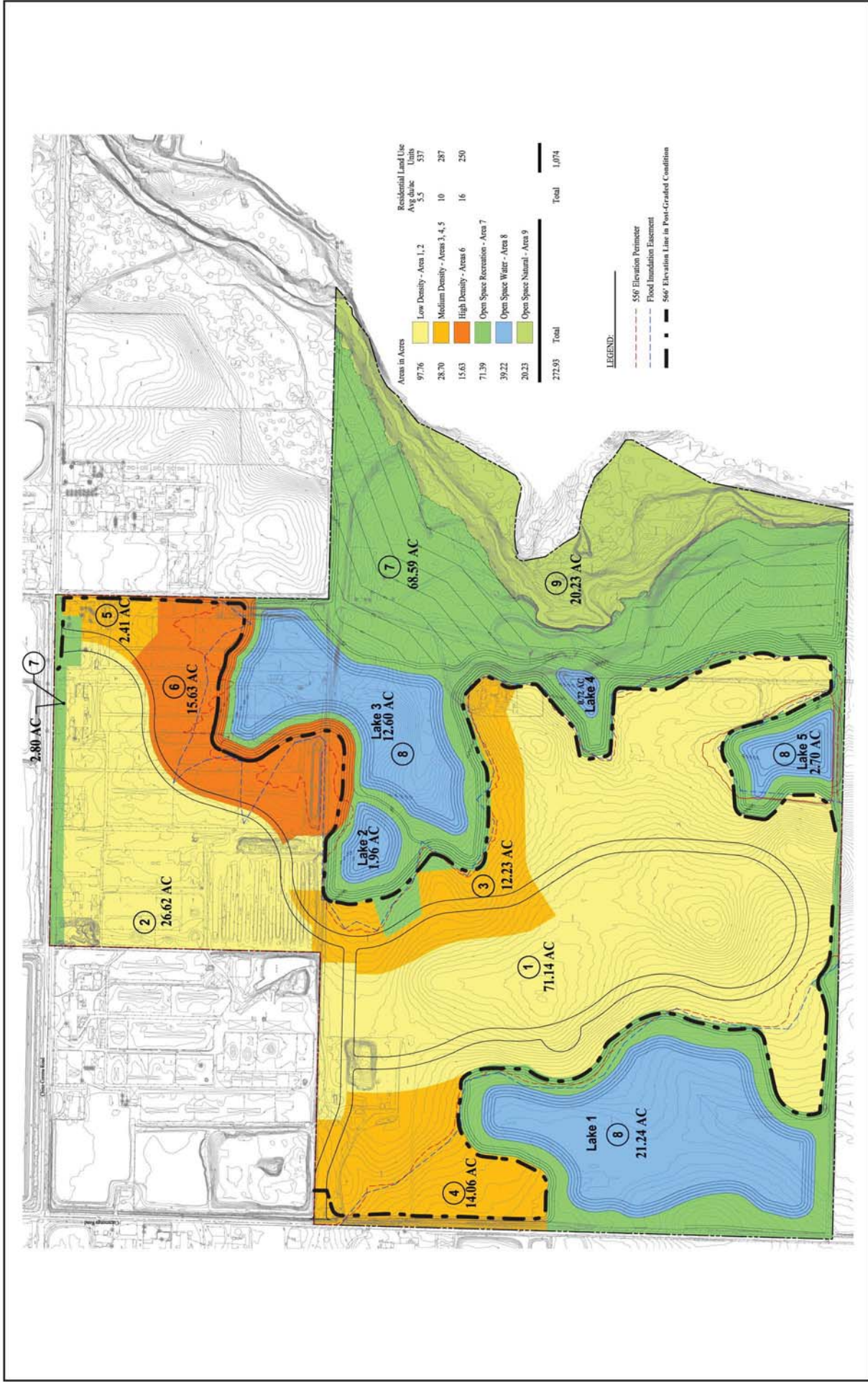
Runoff Water and Drainage Systems

Impact 4.8-5:	The Project will not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [CEQA Hydrology / Water Quality Threshold 8(e)]

Impact Analysis

Project implementation will increase the amount of impermeable surface within the Project site. The proposed Project will install an onsite storm water collection and detention system, the capacity of which was designed based on runoff calculations contained in Appendix H. The system would collect runoff from the impervious surfaces of the proposed Project, conveying the runoff to three detention basins in the eastern, southeastern and southwestern portions of the Project site (see Exhibit 4.8-1). The basins would be sized to accommodate runoff from a 100-year storm event. The installation of this system would ensure that runoff is adequately collected and detained and no adverse impacts would be experienced on or offsite.

Project storm drain facility design will be in accordance with the Hydraulic Criteria 1 through 10 listed on Pages 3 through 6 of City of Chino Storm Drain Master Plan Update Report contained in Appendix K. Project design in compliance with these Hydraulic Criteria, as required by Mitigation Measure U-SD-1 (see Section 4.16) will insure that compliance is achieved. The Project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems. No significant impact on storm water drainage systems would occur.



Source: PBR Planning, December 2006. Huitt-Zollars, Inc., February 2008.



Michael Brandman Associates

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Exhibit 4.8-2 Proposed Project 566' Elevation Line in Post-Graded Condition

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Non-point source pollution that is associated with urban land use may be expected to increase following development of the Project site. Pollutants such as oil and grease, heavy metals, sediment, fertilizers and pesticides could be present in surface water runoff once Project development occurs. Adverse impacts to water quality standards and a general degradation of water quality would not occur, however. Project compliance with NPDES regulations (described in Section 4.8.3) will insure that substantial additional sources of polluted runoff would not be generated by the Project during construction or throughout the life of the Project. Any potential impact would be minimized through NPDES compliance, Project design, and standard construction and operational practices. No mitigation measures are necessary.

In the developed condition, approximately 132 acres within the site will remain below the 566' elevation line and within the Prado Dam inundation area (see Exhibit 4.8-2). The potential then exists for high inflow and infiltration into the Project sewer system. Project Mitigation Measure U-WW-2 (see Section 4.16) requires that all sewer systems below the 566' elevation be designed as sealed systems to mitigate potential high inflow and infiltration. The sewer system below the 566' elevation would, therefore, not constitute a source of polluted runoff.

Implementation of the Project could be expected to contribute to an improvement in water quality. The proposed Project would result in replacement of existing dairy operations, and the removal and disposal of the dairy wastes in a manner in accordance with local regulations. The top layer of the soils within all dairy areas would be removed because it is predominantly dairy waste. The removal of these contaminated soils is considered a beneficial water quality impact in that this continued source of nutrients, suspended solids and pathogens would be eliminated as a source of pollution for surface and groundwater.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures necessary.

Level of Significance After Mitigation

Less than significant.

Flood Hazard Area and Flooding

Impact 4.8-6:	The Project will not 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 Project will not place structures within a 100-year flood hazard area which would impede or redirect flood flows. The Project will not 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. [CEQA Hydrology / Water Quality Thresholds 8(g), 8(h), and 8(i)]

Impact Analysis

Please see Impact 4.8-4 analysis. The online Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM, Map No. 06071C9335F), dated March 18, 1996, identifies most of the Project site as Zone D. Zone D is defined as a region of undetermined risk, an area with possible but undetermined flood hazards, and an area for which no flood hazard analysis has been conducted.

The Prado Basin Master Plan and Environmental Impact Statement (USACE, 2005) indicates that 100-year flood prone areas occur in the vicinity of Mill Creek below the 550-foot elevation.

The elevation of the Project site ranges from approximately 508 to 579 feet above mean sea level (msl). The USACE maintains land use control over those properties within the Prado Flood Control Basin for which it maintains flowage easements, which includes the Project site. The 566' elevation line represents the existing USACE flowage easement line (see Exhibit 3-6). The 566' elevation line represents the High Water Elevation of the Prado Basin, delineating the upper limit of the Prado Dam inundation area. The portion of the Project site that is below the 566' elevation that is presently within the inundation area (comprising 238 acres) can potentially be flooded with ponding storm water during major storm events.

USACE determines the type of structures that are appropriate within the Prado Dam inundation area. Appropriate uses, such as habitat, active and passive recreation, agricultural and equestrian uses, may be located below the 566' dam inundation elevation based on potential flooding constraints. USACE also determines the type of structures that are appropriate within the dam inundation area. The primary criterion used by USACE to determine if a structure is appropriate in the inundation area is whether it is capable of supporting human habitation.

The Preliminary Hydrology and Hydraulic Calculations contained in Appendix H indicates that the proposed Project plans to modify topography on the Project site so that an estimated 141 acres are above the 566' elevation (inundated water surface elevation behind Prado Dam), and an estimated 132 acres are below the 566' elevation. No habitable structures are proposed by the Project below the 566' elevation, in conformance with federal law (see Exhibit 4.8-2). The explanation of the USACE Flood Easement Exchange Program, as contained in Section 3, Project Description, describes the

process by which the applicant can apply to have the 1941 Recorded Easement for Flood Inundation, correlating to the 556' elevation line, removed from the Project site.

The Edgewater Project Plan prepared by Huitt-Zollars (February 2008) identifies each of the proposed lot pads as situated between 569 feet and 591.8 feet above msl. The minimum pad elevation would, therefore, exceed the 550' 100-year floodplain boundary by 19 feet, and the 566' upper limit of the Prado dam inundation area by 3 feet. Residential areas within the proposed Project are set back from Mill Creek where 100-year flood prone areas currently exist. Grading would ensure that modifications to the 100-year flood plain boundary would not result in significant concentration of flood flows.

The Project is designed to avoid exposing people or structures to a significant risk of loss, injury, or death involving flooding. All proposed residences would be located outside the 100-year flood plain and above the upper limit of the Prado dam inundation area. A less than significant flood hazard impact would occur.

The Project site is located approximately 3.1 miles upstream from Prado Dam. The site is not located downstream of any major dam. A failure of Prado Dam would affect only downstream areas. The Project site would not be affected and no impact would be experienced.

Revisions to the 100-year floodplain require that the Project Applicant, prior to recordation of the final tract map, apply to FEMA for a Conditional Letter of Map Revision (CLOMR) indicating revisions to the 100-year floodplain. A detailed flood hazard analysis prepared by a qualified professional engineer is required to accompany the request for the CLOMR. The CLOMR must be obtained prior to grading, and a Letter of Map Revision (LOMR) must be obtained prior to occupancy of structures.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Seiche, Tsunami, or Mudflow

Impact 4.8-7:	The Project will not be exposed to inundation by seiche, tsunami, or mudflow. [CEQA Hydrology / Water Quality Threshold 8(j)]

Impact Analysis

Implementation of the proposed Project would not result in inundation by a seiche, tsunami, or mudflow. Seiche and tsunami are the result of tectonic activity, such as an earthquake. A seiche is an oscillation of the surface of a landlocked body of water that can create a hazard to persons and structures on and in the vicinity of the water. A tsunami, also known as a tidal wave, is an oceanic wave that can break inland, creating a hazard up to several miles from the coast, depending on the severity of the wave. A mudflow is a moving mass of soil made fluid by rain or melting snow.

It is possible that the proposed lakes could be subject to seiches during seismic events where the lake water would oscillate. Based on the distance between the lakes, the relative elevation of the lakes and the residential building pads, and the proposed depth of the lakes, however, significant impacts from seiches would not be anticipated.

The relatively low relief of the Project site, with elevations varying from 508 feet to 579 feet above mean sea level, does not contribute to the risk for earthquake-related landslides that would result in mudflows. No impact would, therefore, occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.8-8:	The Project's incremental effect on cumulative hydrology and water quality conditions would not be cumulatively considerable.

Impact Analysis*The Preserve Specific Plan and EIR*

The Preserve EIR (2003) found that implementation of The Preserve Specific Plan, along with other then projects in the surrounding Chino Basin Dairy Area (CBDA), would contribute to increases in impervious surfaces (which would increase runoff rates), and incrementally add to the amount of urban pollutants discharged into the drainage system. However, The Preserve EIR also found that the Specific Plan's incremental impact would be substantially reduced with application of identified Preserve EIR Mitigation Measures HWQ-1 through HWQ-7 (see Table 4.8-4) and compliance with

state and federal regulations protecting receiving waters. Consequently, the Specific Plan's contribution to cumulative water resources impacts was considered less than significant.

Edgewater Communities

The incremental impact of the proposed Project, when added to the related past, present, or reasonably foreseeable future projects listed in Section 3, Project Description, would not result in cumulative impacts related to hydrology and water quality.

The list of related projects used in consideration of cumulative impacts includes a number of major development projects within the City of Chino and neighboring jurisdictions that would have the potential to impact regional hydrological conditions through an increase in the amount of impermeable surfaces, use of groundwater, and alterations to existing drainage patterns. However, implementation of mandatory federal, state, and local regulations to conserve and protect both groundwater and surface water resources would significantly reduce these potential impacts. In addition, the City of Chino and surrounding jurisdictions that have historical dairy operations and other agricultural uses would experience a relative improvement in surface and groundwater quality because of the cessation of agricultural activities. Therefore, the proposed Project's incremental effect on cumulative hydrology and water quality conditions would not be cumulatively considerable.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No additional mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.8.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.8-4 below provides a cross reference summary between Edgewater Communities Mitigation Measures and Project design features with The Preserve EIR Mitigation Measures.

Table 4.8-4: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Hydrology and Water Quality

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
U-SD-1. Conformance of Project storm drain facilities with Storm Drain Master Plan Update criteria.	The Preserve Specific Plan did not allow development of Project site areas below the 566' elevation.	Storm Drain Master Plan Update Report was prepared to integrate the Edgewater Project. Applicant/developer would be required to comply with hydraulic criteria contained in Storm Drain Master Plan Update Report.
Project-specific NPDES compliance is required during construction and throughout the life of the Project.	HWQ-1. National Pollutant Discharge Elimination System (NPDES) regulations compliance.	No conflict. Project compliance with NPDES regulations to be achieved through Project design and standard construction and operational practices. No additional mitigation is required.
U-WW-2. Sealing of sewer systems below the 566' elevation line.	HWQ-2. Best Management Practices (BMPs) to control storm water discharges and protect water quality.	Both mitigation measures address protection of water quality. No conflict between The Preserve EIR and the Project.
Project-specific NPDES compliance is required during construction and throughout the life of the Project.	HWQ-3. BMPs to reduce water pollution from urban runoff.	No conflict. Minimization of any potential Project impact will be achieved through NPDES compliance, Project design, and standard construction and operational practices. No additional mitigation is required.
No Project-specific water quality monitoring mitigation. Project detention/infiltration basins will address runoff water quality before eventual discharge into Mill Creek.	HWQ-4. Water quality monitoring program for storm drainage outlets to Prado Lake, Chino Creek and Mill Creek.	Project operational phase numerical discharge monitoring program for Mill Creek not required by NPDES program. Could be required by City for Project Mill Creek outlet, if desired. Project sampling and analysis program could be required during construction.
Project design incorporates three 'mini-basins' for detention, filtration and recharge to groundwater.	HWQ-5. Storm drainage plan implementation and incorporation of 'mini-basins' for detention, filtration and recharge to groundwater.	Project complies.

Table 4.8-4 (Cont.): Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Hydrology and Water Quality

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
No Project-specific mitigation to protect Prado Regional Park and Lake.	HWQ-6. Design of storm drain facilities and outlets so as to minimize disruptions to Prado Regional Park operations and natural open space areas. PS-PR 2. Minimization of impacts to Prado Regional Park and avoidance of adverse effects from Preserve drainage on Prado Park and Lake.	No conflict. Minimization of any potential Project impact to be achieved through Project design and standard construction and operational practices. No additional mitigation is required.
No Project-specific mitigation to protect sensitive drainages within open space areas.	HWQ-7. Management of urban runoff to protect sensitive drainages within open space areas.	No conflict. Minimization of any potential Project impact to be achieved through Project design and standard construction and operational practices. No additional mitigation is required.
Notes: Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.9 - Land Use and Planning

4.9.1 - Introduction

This section describes the existing land use setting and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the following documents:

- The Preserve Specific Plan and Final EIR;
- City of Chino General Plan;
- Amendment to The Preserve Specific Plan; and
- The Preserve Area Plan.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project that addressed land use and planning, contained in Appendix A, were received by the City of Chino in order of receipt from the Endangered Habitats League, Southern California Association of Governments (SCAG), and the California Department of Conservation (CDC). Each of these response letters outlined specific issues and topics that the respondents believed should be included for analysis in the EIR.

In regard to land use and planning, the topics that were identified in the letters were generally consistent with the Thresholds of Significance provided in the CEQA Guidelines and analyzed in detail later in this section. Among the issues noted were: 1) consistency with the long-term land use vision established by the City in previous planning efforts; 2) consistency with Regional Comprehensive Plan policies adopted by SCAG; 3) loss of open space; and 4) analysis of a range of measures and alternatives that could be implemented to mitigate land use and planning impacts.

4.9.2 - Existing Conditions

Land Use

Project Site

The Project site is currently occupied by an active dairy operation known as the Stueve Dairy (with a cow population generally ranging from 600 to 800 cows), and open land (see Exhibit 3-4). The dairy is located in the northern portion of the site and consists of three occupied residences, barns, and associated structures. Cattle holding pens make up the majority of the dairy area. Multiple small waste discharge ponds are located in the southwestern portion of the dairy area, serving to collect and handle the wastewater associated with dairy operations. Wastewater and storm water runoff from four adjacent dairies is currently accepted. Water is managed using onsite percolation/ evaporation and/or irrigation through the use of manmade ponds. Mill Creek and associated riparian area extend within the eastern portion of the Project site.

The open lands within the site contain several structures, including an unoccupied residence and a barn, several dirt access roads, irrigation pipelines, and a manmade pond located in the southeast

corner containing dairy wastewater. Rainfall was sufficient last winter (2007) to support a crop of winter wheat occupying approximately 60 acres within the central portion of the site. In general, however, the use of the open land within the Project site to accept wastewater and storm water runoff from the four adjacent dairies, as well as accepting solid and liquid waste from the onsite dairy operation, has degraded the soil and restricted agricultural use.

Surrounding Area

An aerial view of surrounding land uses is provided in Exhibit 3-4.

East

The eastern boundary of the Project site is formed in part by Mill Creek. Across Mill Creek to the east, there is an equestrian facility, a green waste recycling/fertilizer plant, and limited plant nursery operations. To the east of the northern portion of the Project site just south of Chino Corona Road lies a rural residence and property owned by USACE (see Exhibit 3-4).

North

Land uses immediately north of the Project site are the Land O'Lakes Dairy, two dairy residences, a mobile home, and other dairy operations. Further north lie developed residential neighborhoods within The Preserve above Pine Avenue and Chino Municipal Airport. The California Institution for Men lies to the northwest (see Exhibit 3-2).

West

Immediately west of the Project site at the intersection of Chino Corona Road and Cucamonga Avenue is property owned by the Orange County Flood Control District, currently occupied by an active dairy operation with onsite residences. West of Cucamonga Avenue is another active dairy operation. These two dairies together are called GH Dairies #1 and #2. The California Institution for Women lies northwest of the intersection of Chino Corona Road and Cucamonga Avenue. Prado Regional Park lies directly west, accessible from Euclid Avenue.

South

To the south of the Project site lies property owned by the US Army Corps of Engineers (USACE). Other uses include Hunting Clubs (duck and pheasant), a remote-operated airplane facility operated by the San Bernardino County Department of Public Works – Regional Parks Division, and a paint ball facility.

4.9.3 - Regulatory Setting

Regional

SCAG Regional Comprehensive Plan and Guide

SCAG is the regional governing body for the south region including the counties of Orange, Los Angeles, San Bernardino, Riverside, and Imperial. Regional associations of governments were created by the State to guide land use decisions that overlap multiple local jurisdictions by creating joint powers of agreement between these localities, and to provide policy guidance in the region.

SCAG is Southern California's forum for addressing regional issues concerning transportation, the economy, community development and the environment. As a Metropolitan Planning Organization (MPO), SCAG's main responsibilities under State and federal Law are completing the Regional Transportation Analysis (RTP) and the Regional Housing Needs Assessment (RHNA). The RTP involves preparation of long-range transportation plans and development and adoption of transportation improvement programs that allocate State and federal funds for highway, transit and other surface transportation projects. While SCAG does not have formal regulatory authority and therefore cannot directly implement land use decisions, SCAG guides land use planning for the Southern California region through intergovernmental coordination and consensus building. SCAG serves as the regional clearinghouse for projects requiring environmental documentation under State and federal law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

SCAG Regional Comprehensive Plan and Guide (RCPG) contains policies addressing growth management; improving regional standard of living and quality of life; and providing social, political, and cultural equity in terms of air quality, open space and conservation, and water quality. A consistency of the Edgewater Communities Project with the regional policies contained within the RCPG is provided later in this Draft EIR section in Table 4.9-3.

SCAG Regional Planning Policy - Jobs/Housing Balance

The SCAG Regional Comprehensive Plan and Guide (RCPG) presents the region's forecasts and policies for dealing with anticipated growth including population, housing, and employment throughout Southern California. Growth projections contained in the RCPG are based on a compilation of county and local projections. RCPG forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/circulation, and other infrastructure issues.

SCAG Compass Vision Growth, 2004

The fundamental goal of Compass Vision Growth 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. Regional Growth principles provide a framework for local and regional decisions that include a specific set of strategies intended to achieve the goals that follow.

Principle 1: Improve Mobility

- Encourage transportation investments and land use decisions that are mutually supportive.
- Locate new housing near existing jobs and new jobs near existing housing.
- Encourage transit-oriented development.
- Promote a variety of travel choices.

Principle 2: Foster Livability

- Promote infill development and redevelopment to revitalize existing communities.
- Promote development that provides a mix of uses.
- Promote “people-scaled” walkable communities.
- Support the preservation of stable, single-family neighborhoods.

Principle 3: Enable Prosperity

- Provide a variety of housing types to support all income levels.
- Support education opportunities that promote balanced growth.
- Ensure environmental justice.
- Support fiscal policies that encourage balanced growth.

Principle 4: Promote Sustainability

- Preserve rural, agricultural, recreational, and environmentally sensitive areas.
- Focus development in urban centers and existing cities.
- Use resources efficiently, eliminate pollution, and reduce waste.
- Utilize “green” development strategies.

The Compass Vision Growth Plan designates selected jurisdictions in key growth areas within the region to develop tools to implement the four principles. The Compass plan is based upon making incremental changes in two percent of the land area within the region to promote mobility, livability, prosperity, and sustainability. Compass plan opportunity areas have been established throughout the region.

SCAG 2004 Regional Transportation Plan

The primary purpose of Destination 2030 is to “establish a better [regional] transportation system which is integrated with the best possible growth pattern for the region over the Plan horizon of 2030” (SCAG 2004). The Regional Transportation Plan (RTP) is a performance-based transportation plan that places a strong emphasis on meeting specific goals. The 2004 RTP goals are listed below:

- Maximize mobility and accessibility for all people and goods in the Region.
- Ensure travel safety and reliability for all people and goods in the Region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of [the regional] transportation system.
- Protect the environment, improve air quality, and promote energy efficiency.
- Encourage land-use and growth patterns that complement [regional] transportation investments.

Other Regional Plans

Other Regional Plans that relate to the Edgewater Project site are as follows:

- Prado Basin Master Plan
- Chino Creek Integrated Plan
- Mill Creek Wetlands Recreation Plan

Descriptions of these Regional Plans are contained within Section 4.8, Hydrology and Water Quality, of this Draft EIR. Consistency of the Project with these plans is addressed in Section 4.8 as well as Section 4.14, Recreation.

Local

City of Chino General Plan

The City of Chino General Plan is a blueprint for land use and development activities in the City of Chino. The General Plan is a long-range comprehensive planning document that embraces all aspects of existing and future physical development of the community, public and private. The City of Chino General Plan contains the following elements: Land Use; Circulation; Housing; Conservation/Open Space; Air Quality; Seismic and Public Safety; Noise; and Economic Development. Each General Plan element contains goals and policies to guide existing and future land use and development activities. The City of Chino is now in the process of updating the General Plan.

Current General Plan goals and policies pertinent to issue areas within Section 4, Environmental Impact Analysis, of this Draft EIR are contained within the individual Sections 4.1 through 4.17. Analysis for Impact 4.9-2 in this section contains a consistency analysis that lists General Plan goals for land use and planning and all other CEQA issue areas.

City of Chino Measure M

Measure M was passed by the voters of the City of Chino on November 8, 1988 to ensure the quality of the residential environment and the quality of life in the City, and prevent the increase of land designated for residential uses within the City. Municipal Code Section 20.07.010 General Plan Initiative establishes maximum densities for residential lands in the City. Provisions of the Municipal Code are as follows:

- “1. Notwithstanding any other provision of the general plan, the maximum density of any land designated for a residential use within the city shall not exceed the density for such land established by the zoning map and the zoning ordinance of the city, or any development agreements in effect on November 8, 1988, excepting senior housing projects. However, the city council may reduce the density of any land designated for a residential use.
2. Notwithstanding any other provision of the general plan, any land designated for a nonresidential use within the city shall not be converted to a residential use, excepting

school sites designated in the general plan or a specific plan, or development agreements approved by the city prior to November 8, 1988. However, the city council may convert any land designated for a residential use to any other nonresidential use, and may also change uses among lands designated for nonresidential uses.

3. The city has no set maximum population limits. Growth shall be in a phased and orderly manner consistent with the availability of adequate public and private services, utilities and public facilities.
4. In order to be consistent with the land use element, the number of existing or proposed units per adjusted gross acre of land designated for residential use must fall within the range of units allowed by the applicable residential land use designation; provided that the maximum number of such units per adjusted gross acre shall not exceed those in effect as of November 8, 1988, except as otherwise permitted by subsections (B)(1) and (B)(2) of this section. (Ord. 99-22 § 1, Exh. A (part), 1999.)”

The Edgewater Communities Project is not subject to Measure M, however, because the Project site was not included in the City limits at the time Measure M was adopted (1988).

The Preserve Specific Plan and EIR

The Preserve Specific Plan established the following land use designations for the Edgewater Project site: Estate Residential (ER), Open Space Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N), and Open Space Natural (OS-N). Acreages for each designation are contained within Table 4.9-1 which follows. Existing land use designations under The Preserve Specific Plan are displayed in Exhibit 3-7. Exhibit 3-9 shows a modified land use plan for The Preserve with proposed Edgewater designations.

Conclusions on the impacts to land use and planning of The Preserve Specific Plan were made in The Preserve Final EIR under the presumption that lands below the 566’ elevation line would remain as agricultural and open space land. Final EIR Mitigation Measure B-1 Zoning and Land Use Regulation, in particular, specified open space or agricultural land use designations below the 566’ dam inundation line, with limited exceptions. The Preserve Final EIR concluded that, after mitigation, impacts remained significant: 1) at the project level on community character (converting agricultural and dairy uses to developed uses) and open space (loss of agricultural open space); and 2) at the cumulative level in terms of the irretrievable cumulative loss of open space. Land use compatibility impacts were also determined to be potentially significant prior to Specific Plan buildout during the transition phase when urban uses are being established adjacent to existing agriculture and dairy uses.

The Preserve Area Plan

As part of the extensive planning effort for The Preserve, The Preserve Area Plan was prepared to provide a bridge between The Preserve Specific Plan and the General Plan, and to support General

Plan consistency. The Preserve Area Plan establishes the framework for the development of a high quality, dynamic and integrated community with a range of residential, commercial, industrial, and multi-purpose open space uses at a variety of intensities and densities.

4.9.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether significant environmental effects on land use and planning would result from project implementation, the following questions are analyzed and evaluated: Would the project:

- a.) Physically divide an established community?
- b.) 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?
- c.) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

4.9.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Table 4.9-1 displays a comparison of land use designations under The Preserve Specific Plan (2003) and as amended for the Edgewater Communities Project. Exhibit 3-9 graphically displays The Preserve Land Use Plan with the proposed Edgewater Project land use designations, and includes a comparison table for the entire Specific Plan area showing acreage totals by land use category for The 2003 Preserve Land Use Plan and as amended for the Edgewater Project.

Besides land uses displayed in Table 4.9-1, the Project will also incorporate urban buffer/transition areas in accordance with The Preserve Resources Management Plan (RMP) to minimize indirect effects to adjacent open space areas. The urban buffer/transition areas would include landscaped areas with "barrier plantings," appropriate signage, and fences/walls restricting access to Mill Creek and conserved open space areas.

Table 4.9-1: Comparison of The Preserve Specific Plan within the Project Site and The Preserve Specific Plan as Amended for Edgewater Communities Project

Land Use Designation	Current Permitted Uses on the Edgewater Project Site (acres)	Current Permitted Uses on the Edgewater Project Site (dwelling units)	Proposed Land Use Designations on the Edgewater Project Site (acres)	Proposed Land Use Designations on the Edgewater Project Site (dwelling units)	Net Change (acres)	Net Change (dwelling units)
Residential						
Estate (2 du/acre)	3.65	7	0.00		-3.65	-7
Low Density (5.5 du/acre)	0.00		97.76	537	+97.76	+537
Medium Density (10 du/acre)	0.00		28.70	287	+28.70	+287
High Density (16 du/acre)	0.00		15.63	250	+15.63	+250
Residential Total	3.65	7	142.09	1,074	+138.44	+1,067
Open Space						
Open Space/ Recreation (OS-R)	14.59		71.39		+56.80	
Agricultural and Open Space Natural (AG/OS-N)	197.14		0.00		-197.14	
Open Space Natural (OS-N)	57.55		20.23		-37.32	
Open Space Water	0.00		39.22		+39.22	
Open Space Total¹	269.28		130.84		-138.44	
Notes: 1 Area retained as Open Space within proposed Project would contain five lakes; 22.9 acres riparian habitat; 29.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of 2.1 acres of suitable LBV habitat. Source: PBR, November 2006, Michael Brandman Associates, 2008.						

Divide Established Community

Impact 4.9-1: The Project will not physically divide an established community.
[CEQA Land Use and Planning 9(a)]

Impact Analysis

The Project is part of The Preserve Specific Plan area which is transitioning from agriculture and dairy uses to a mixture of land uses (residential, commercial, business park, industrial, airport-related uses, and public facilities). Existing land uses immediately surrounding the Project site include dairy and agricultural lands and lands owned by USACE and the Orange County Flood Control District. Rather than dividing an established community, the proposed Project will provide land uses compatible with the land uses north of the Project site within The Preserve Specific Plan area. The Project reflects a southerly extension of residential uses from the north, strengthening the Community Core by providing additional population to support the mixture of uses (e.g. entertainment, commercial, civic, cultural, educational, religious) planned to comprise the Community Core. The Project linkage to The Preserve community paseo and open space system will provide pedestrian and bicycling opportunities between the Project site and the Community Core.

The proposed Project will not physically divide an established community, and no impacts associated with this issue are expected to occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Conflict with Applicable Plans, Policies, or Regulations

Impact 4.9-2: The Project will conflict with applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project.
[CEQA Land Use and Planning 9(b)]

Impact Analysis

A consistency analysis of the Project with the City's General Plan, The Preserve Specific Plan, and with regional planning documents is provided as follows.

Consistency with City of Chino General Plan

The City of Chino's General Plan sets forth general goals that serve to guide land use planning efforts in the City of Chino. Table 4.9-2 provides an analysis of the Project's consistency with each applicable goal from the City's General Plan.

Table 4.9-2: General Plan Consistency Analysis

Land Use Element	General Plan Goal	Project Consistency Analysis
Growth and Identity		
General Policy – The City of Chino has set no maximum population limits. Growth shall be in a phased and orderly manner consistent with the availability of adequate public and private services, utilities and public facilities.		Consistent. The Preserve Specific Plan has been carefully designed to ensure that the infrastructure necessary to accommodate the demands generated by the plan at build-out is developed. The Specific Plan includes the standards for the development of streets, a potable water system, a reclaimed water system, a sewer system, and a storm drainage system. Phasing and financing plans contained in the Specific Plan guide the orderly development of the infrastructure and policies in the plan require that services and utilities be in place to serve new development. The Specific Plan also includes policies addressing the provision of schools and parks to meet the demands generated by the build-out of the planning area. The Edgewater Specific Plan also reflects the phased and orderly extension of services, utilities, and facilities to the Project area.
General Policy – The City of Chino shall develop a community image, which portrays it as a diverse, yet well maintained, and pleasant suburban environment in which to live and do business. The City’s rural agricultural heritage should also be maintained and fostered.		Consistent. The development concept for the Project combines a mixture of uses - residential, open space (natural, recreation, and water), church/school, and museum/retail- with primarily low-density residential uses to maintain the well-balanced suburban/rural character of Chino. In addition, the Project would rely on the Community Core of The Preserve, north of the Project site, for commercial services and uses instead of allowing a sprawl of commercial areas. This helps to maintain the heart of The Preserve, while also providing a convenient center to accommodate the needs of Edgewater residents. The museum is intended as an agricultural museum to help foster the City’s rural agricultural heritage.
Residential Land Uses		
General Policy – Each new development should have, to the maximum extent, its own distinct character and identity. Adopted land use patterns should also serve to protect and enhance the character of existing neighborhoods.		Consistent. Each of the residential land uses proposed by the Project (Low Density, Medium Density, and High Density) would accommodate a distinct character, style, housing opportunity, and density of development. In addition, each of the Project’s land use designations accommodate a broad range of housing types, with the intent to encourage a variety of housing types and products that appeal to all segments of the market. The development standards and design guidelines for Edgewater (as seen in The Preserve) will ensure a variety of product design and densities, and allow a diversity of product arrangements.
General Policy – The City’s overall land use pattern shall stress higher density development in the Central portion of the City and along Euclid Avenue, and lower density development in the outlying areas.		Consistent. The Preserve, because of its separation and distance from the central portion of the City, has been established as a self-sustaining Community Core - an extended segment of the City. The proposed Project reinforces this new Community Core while also maintaining lower density development in outlying areas.

General Plan Goal	Project Consistency Analysis
General Policy - The design and location of all residential neighborhoods shall be such as to avoid adverse environmental impacts upon the neighborhood and vice versa.	Consistent. The proposed Project is planned to preserve environmentally sensitive areas along Mill Creek and utilize developable lands that can be raised above the dam inundation elevation for Prado Dam. This will ensure the protection of future homes from water damage due to floods while still providing important areas of open space. Portions of the Project site are to be preserved as natural open space, only to be used for habitat conservation and/or passive recreation.
General Policy - The design of the residential environment shall be such as to give the appearance of a suburban density and scale, except in rural areas, where the scale shall be rural in nature.	Inconsistent. The Edgewater Project site is largely designated AG/OS-N by The 2003 Preserve Specific Plan, reflecting a previous intent to maintain the rural character of the site. The 2003 Preserve Specific Plan locates the urban buffer/transition area generally along the northern boundary of the Project site, extending below the existing area designated for Estate Residential uses as the buffer proceeds west. Project implementation will result in the relocation of the urban buffer/transition area in order to separate proposed Project urban structures/uses from habitat areas within and surrounding the Project site. Proposed Project land uses are not consistent with The Preserve Specific Plan. The Edgewater Amendment to the Specific Plan and General Plan Amendment would allow establishment of a primarily low density suburban character on the site.
Commercial Land Uses	
General Policy - Commercial development shall be located centrally to the community, with outlying commercial areas providing either specialized services, or services limited in scope to serving local residents.	Consistent. The commercial uses within the Community Core of The Preserve would adequately serve the commercial needs of the residents of the proposed Project. Only limited commercial/retail is planned in conjunction with the museum.
General Policy - All commercial development shall be of the highest aesthetic and functional quality. Detailed design criteria and standards shall be established in order to achieve this purpose and provide developers with suitable guidance. Such criteria shall at a minimum address building height, architectural design, landscaping, bulk, parking design and pedestrian circulation.	Consistent. The Preserve Specific Plan includes standards and criteria that provide future developers, City staff and decision makers with clear guidance. The Design Guidelines for The Preserve address the aesthetic treatment of buildings and public rights-of-way including landscaping, gateways, signage, lighting, and walls. Taken together, the standards of the Preserve guide development that achieves the highest aesthetic and functional quality. Requiring an amendment to The Preserve Specific Plan, the Edgewater Project will have a separate set of Design Guidelines consistent with the intent and purpose of the Design Guidelines for The Preserve.
General Policy - The City shall regulate signs in a manner which will emphasize safety, help improve and protect the appearance of buildings as well as the City as a whole, foster legible sign graphics, and promote the public's awareness of the business community while respecting the City's low-keyed suburban character.	Consistent. The Design Guidelines to be contained in the Project Amendment to The Preserve Specific Plan will provide guidance for the scale, placement, and quality of signs within the Project site. The purpose of the Design Guidelines will be to ensure that signs are developed in a manner that is consistent with the buildings appearance and are, at the same time, clearly legible and safe.

General Plan Goal	Project Consistency Analysis
Intergovernmental Coordination General Policy - Through its cooperation with the San Bernardino West Valley Planning effort, the Local Agency Formation Commission, the Chino Hills General Plan committee, the Southern California Association of Governments, the San Bernardino Association of Governments, as well as other publicly sponsored and privately sponsored planning oriented groups, the City shall insure that while its interests are furthered, its plan will be closely coordinated with and supportive of those of neighboring jurisdictions. General Policy - Agricultural land within Chino and its Sphere of Influence shall be converted into urban uses in a gradual, phased, and orderly manner.	Consistent. The proposed Project is required to adhere to the mandatory requirements of CEQA, which includes the noticing of affected property owners, neighboring jurisdictions, and regional agencies. This noticing requirement was met through the issuance of a Notice of Preparation (NOP) and during public scoping sessions held for the Project. Additionally, this Draft EIR is being circulated for public comment and review to affected property owners, neighboring jurisdictions, and regional agencies. Prior to approval of the proposed Project, public hearings will be held, providing opportunity for public comment.
General Policy - The City shall discourage strongly the major expansion of Prado Dam, and encourage the Corps of Engineers to seek alternative solutions for increasing the holding capacity of the dam. Rather, the City shall support the "All Rivers" plan, which will provide for a minimal raising of the Prado Dam, and further flood control facilities upstream.	Inconsistent. Implementation of the proposed Project will result in the conversion of 170.4 acres of Prime and Unique Farmland now designated by The Preserve Specific Plan for agricultural and open space uses into non-agricultural uses (see Section 4.2.5, Agricultural Resources). Conversion to urban uses was not anticipated by the City for this area. The Preserve Specific Plan locates the urban buffer/transition area generally along the northern boundary of the Project site, extending below the existing area designated for Estate Residential uses as the buffer proceeds west. Project implementation will result in the relocation of the urban buffer/transition area in order to separate proposed Project urban structures/uses from habitat areas within and surrounding the Project site. Agricultural land use designations are indicated in The Preserve Specific Plan for properties to the east, south and west. Existing agricultural uses currently lie to the east, west and north.
Environment General Policy - The City shall take what steps it can toward the attainment and long-term maintenance of an ambient air quality consistent with Federal, State, and Regional standards.	Consistent. Through its efforts and coordination with the Army Corps of Engineers to refine the area's inundation levels, the proposed Project complies with this policy by locating development on areas above the 566-foot dam inundation elevation. Uses below that elevation are restricted to the Project's water features, habitat conservation, and both active and passive recreation.
Consistent. The Project would build upon The Preserve's design concepts, which work to reduce vehicular trips. The Preserve basic design features are consistent with regional air quality objectives to utilize an existing local transit system and incorporate an extensive bicycle and pedestrian circulation system. During construction, the Project would employ standard mitigation measures, such as dust control measures mandated by the SCAQMD. Energy efficient design practices will be required by Title 24 of the California Code of Regulations.	

General Plan Goal	Project Consistency Analysis
General Policy - The City shall work to help ensure that to the maximum extent possible a quiet living and working environment is achieved for all those living or working within the Planning Area.	Consistent. In the short-term, construction activities within and near the Project site may result in increased noise levels. All construction activities will be required to comply with the City's noise ordinance. In addition, mitigation measures in the Draft EIR limit construction activities near residences. In the long-term, noise resulting from operations of the Chino Airport has been considered. Project residential uses lie well outside the adopted 65dB noise contour. Traffic-related noise has also been considered. All future construction will be subject to the City's building and construction standards.
General Policy - Development shall not be allowed in areas of high natural hazard without adequate mitigation.	Consistent. Lands once below the 566-foot dam inundation line would be raised to an adequate and safe height for residential structures. Upon buildout, all the areas proposed for development within the Project would avoid earthquake faults, flooding or dam inundation areas, and currently adopted Chino Airport noise and safety zones. Environmentally sensitive areas and drainage courses would be maintained and incorporated within the Project as open space, recreation, and trail amenities.
Resource Conservation	
General Policy - The City shall take positive steps to ensure that newly constructed facilities are as energy efficient as possible	Consistent. The Project will comply with the City's building code and the energy efficient design practices required by Title 24 of the California Code of Regulations. The Project would cluster residential land uses within the medium- and high-density residential areas, and would feature trail options to help reduce the need to utilize automobiles.
General Policy - The land use pattern within Chino shall respect the general aim of conserving energy.	Consistent. The Project would cluster residential land uses within the medium- and high-density residential areas, and would feature trail options to help reduce the need to utilize automobiles.
Circulation Element	
Goal G3-1 - Transportation Facility Improvement: Plan, develop and maintain street improvements, including landscaping, to ensure adequate future capacity to accommodate traffic demands	Consistent. The roadway improvements for the Project site would accommodate traffic generated by the Project as well as through traffic along Chino Corona Road, with attention given to the relationship between the proposed Project and The Preserve. The roadway system consists of several roadway classifications that accommodate varying amounts of traffic. The roadways reflect those identified in The Preserve Specific Plan.
Goal G3-2 - Truck and Hazardous Material Routes in the City: The City's truck route and district designations should concentrate truck access to commercial and industrial areas, and should minimize intrusion on residential areas. The City's hazardous materials routes shall be designated on roadways that minimize the possible impact to residential areas in the City.	Consistent. The proposed Project does not include a truck route and/or route to transport hazardous materials. Only limited commercial, and no industrial or other truck-supported land uses are proposed as part of the Project.

General Plan Goal	Project Consistency Analysis
Goal G3-4 - Transportation Demand Management (TDM) Program: Develop and implement employment and home-based TDM programs, reducing the number of vehicle trips generated by both Chino residents and non-residents working in the City.	Consistent. Development of the Project site will be subject to the City's Transportation Demand Ordinance. Policies in the plan also encourage developers to incorporate the latest technological advances. Having access to technological advances may promote home-based business.
Goal G3-5 - Public Transit: The City shall encourage improved facilities, routes, and ridership on all public transit.	Consistent. A transit system is planned for The Preserve and is envisioned as a one-way, continuous loop on dedicated, or prioritized lanes, thus minimizing the number of land use conflicts. Although no plans have been made to extend this loop within the Project site, the Project would not conflict with planned public transit systems. The Project includes and is connected to an extensive trail and paseo system that would provide convenient access to all areas of the Project site, The Preserve, and neighboring facilities.
Goal G3-6 - Commuter and Recreational Trails: Promote commuting and recreational trail as an alternative mode of travel.	Consistent. The Project has been designed to help reduce the number and length of vehicle trips by clustering residential land uses and by the planned installation of trails. The Edgewater site is in close proximity to The Preserve Community Core, which would provide convenient access to services, entertainment, employment, and cultural experiences. The Project includes and is connected to an extensive trail and paseo system that would provide convenient access to all areas of the Project site, The Preserve, and neighboring facilities. All of these features would promote alternative means of travel.
Goal G3-8 - Public Facilities Systems: Provide complete, safe, and efficient public utility systems which serve future land use needs.	Consistent. The public utility systems of the Project are designed to accommodate the buildout of the proposed Project. The Project includes a potable water system, a reclaimed water system, a sewer system, and a storm drainage system. Phasing and financing plans to be contained in the Project Amendment to the Specific Plan will guide the orderly development of the infrastructure in conjunction with new development.
Housing Element	
Goal G4-1 - Housing Preservation: Protect and preserve existing housing to ensure that it continues to meet Chino resident's needs for sound housing in a safe environment.	Consistent. A limited number of residential units currently exist on the Project site to support dairy and agricultural operations. At buildout, the Project would provide 1,074 housing units that would be constructed in a safe environment.
Goal G4-2 - Housing Population: Encourage the construction of a range of new housing appropriate to the needs of Chino residents and the neighborhood where it will be located.	Consistent. The Project proposes low, medium, and high density residential uses. These land use would allow for a broad range of housing types, from large-lot single-family to multi-family apartments. The diversity of residential land use designations would accommodate a variety of housing types, densities, and price ranges. The residentially-designated areas within the Project are located to provide convenient access to recreational facilities, open space areas, trails, transit opportunities, employment, services, and shopping.
Goal G4-3 - Remove Governmental Constraints: Review and, where possible, remove governmental constraints to the production of housing in the City.	Consistent. Development on the Project site is subject to the City's entitlement and permit processes. The Project Amendment to the Specific Plan would provide for the development of 1,074 residential units and would reflect the goals and objectives found in The Preserve Specific Plan.

General Plan Goal	Project Consistency Analysis
Goal G4-4 - Housing Accessibility: Ensure equal access to both sale and rental housing regardless of race, color, sex, marital status, physical handicaps, age, or national origin.	Consistent. The proposed Project provides for the construction of 1,074 new dwelling units that would include a broad range of housing types, from large lot estates to multi-family apartments. This range of housing types could provide multiple living opportunities at a range of densities and price ranges. In addition, residential development within the Project will comply with all applicable local, State, and federal fair housing laws in both the sale and rental of housing. In addition, the proposed Project is subject to the City's entitlement and permit processes.
Conservation/Open Space Element and Appendix	
Goal 5-1 - Agricultural Preservation: To preserve and protect land devoted to agricultural uses and to promote activities to help achieve self-sustainment.	Inconsistent. Implementation of the proposed Project will result in the conversion of 170.4 acres of Prime and Unique Farmland now designated for agricultural and open space uses into non-agricultural uses. Conversion to urban uses was not anticipated by the City for this area.
Goal G5-2 - Improve Air Quality: To improve air quality in the Chino area.	Inconsistent. Project emissions during grading would exceed the SCAQMD's regional emission thresholds for NO _x , PM ₁₀ , and PM _{2.5} after mitigation. Project emissions during operation would exceed the SCAQMD regional significance thresholds for VOC, NO _x , CO, and PM ₁₀ after mitigation (see Section 4.3.6 for a complete discussion of Project air quality impacts).
Goal G5-3 - Preserve Plant and Wildlife Resources: To encourage the preservation and conservation of plant and wildlife resources in the City.	Consistent. The Project includes three open space land use designations that are intended to allow for the preservation of natural resources: Open Space-Water, Open Space-Natural, and Open Space-Recreation. The area retained as open space within the proposed Project would contain five lakes; 22.9 acres riparian habitat; 19.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat.
Goal G5-4 - Cultural and Historical Preservation: To preserve the City's cultural and historical resources for the enjoyment and education of Chino residents.	Consistent. The open space land use designations on the Project site help preserve the historic rural character of Chino. The Project would be developed to be sensitive to any existing cultural or historic amenity. Section 4.5, Cultural Resources of this Draft EIR addresses impacts to cultural and historic resources, and provides mitigation measures to reduce impacts to known and unknown resources.
Goal G5-5 - Reduce Dependence on Non-renewable Resources: The City shall commit itself and encourage residents of Chino to reduce dependence on non-renewable and non-recyclable resources.	Consistent. Although the proposed Project is considered a suburban residential plan not inherently intended to reduce vehicle usage, the proposed Project does provide trail and community paseo access to The Preserve Community Core, thereby promoting alternative transportation options and a resultant reduction in the consumption of gasoline as a non-renewable resource. In accordance with AB 939, the City also has ongoing programs to reduce solid waste, of which the Project would be in compliance.
Goal G5-6 - Encourage Use of Alternative Energy Sources: To encourage and promote the use of alternative energy sources with emphasis on the use of renewable energy sources.	Consistent. Project mitigation for climate change requires the Project developer to offer photovoltaic cells (solar panels) to the single-family residential units. The proposed Project would comply with the City's building code and with Title 24 of the California Code of Regulations regarding efficient use of energy resources. The Project features clustered residential development in the medium and high density areas, and transportation alternatives to help reduce reliance on the automobile.

General Plan Goal	Project Consistency Analysis
Goal G5-7 - Promote Energy Conservation Practices: To encourage the use of energy management and conservation practices, while striving to achieve a sustainable energy future.	Consistent. The proposed Project would comply with the City's building code and with Title 24 of the California Code of Regulations regarding efficient use of energy resources. The Project features clustered residential development in the medium and high density areas, and transportation alternatives to help reduce reliance on the automobile.
Goal G5-8 - Protect Public From Flood Hazards To protect the public's health, safety and general welfare from flood hazards through flood control practices.	Consistent. 238 acres of the Project site currently lie within the Prado Dam Inundation area. Through coordination with the Army Corps of Engineers, the Project design would result in the realignment of the dam inundation contours, allowing for development of 141 total acres of the Project site (106 acres of which are currently within the Prado Dam Inundation area) with residential and supporting land uses. The 132 acres within the Project site that would remain below the inundation line would be utilized for the Project water features and open space areas. Uses such as active and/or passive recreation, habitat, or agriculture may be located within the Prado Dam Inundation area. It is expected that flood control capacity on the site will be increased.
Goal G5-10 - Reduce Local Solid Waste: To reduce the amount of local solid waste generated in the City.	Consistent. Although development of the Project site will increase daily solid waste production and place demands upon Waste Management's landfills, the Project will conform to the City's AB 939 program to reduce solid waste, and local landfills have been designed to accommodate the increase in waste delivered to the site that would result from the Project.
Goal G5-11 - Soil Conservation: To conserve and protect soil resources in the City.	Inconsistent. The Project will result in the loss of productive soils through the conversion of 170.4 acres of Prime and Unique Farmland to non-agricultural uses (see Section 4.2.5 of this Draft EIR).
Goal G5-12 - Conserve Water: To conserve water resources in the City.	Consistent. The Project's proposed land use plan utilizes the natural topography and conditions of the site to create water features to contain recycled water that will help to reduce the need to use potable water for irrigation or recreation purposes.
Goal G5-13 - Meet Existing and Future Water Demands: To meet existing and future water demands for the City.	Consistent. The Project was designed to ensure that there would be sufficient water supply and infrastructure to meet demands of the Project at build-out. Based on the Project Water Supply Assessment, proposed development in the project site would be served by an adequate supply of potable and recycled water. Project water distribution and storage systems were designed to connect to the regional/local systems and provide service to the Project.
Goal G5-14 - Maintain Federal, State, and Local Water Quality Standards: To ensure that the City's water supply maintains federal, state and local water quality standards.	Consistent. Due to the proximity of the Santa Ana River and the Prado Dam, the quality of the groundwater is critically important in the Project area. The Santa Ana Regional Water Quality Control Board (SARWQCB) enforces requirements of the Clean Water Act and administers the Water Quality Control Plan for the Santa Ana River Basin. Draft EIR Section 4.8, Hydrology and Water Quality, addresses impacts to water quality and provides mitigation to ensure that impacts are less than significant.

General Plan Goal	Project Consistency Analysis
Goal G5-15 - Open Space for Natural Resources Preservation: To encourage the development of open space for preservation of the City's natural resources.	Inconsistent. The Project includes three open space land use designations that are intended to allow for the preservation of natural resources: Open Space-Water, Open Space-Natural, and Open Space-Recreation. The area retained as open space within the proposed Project would contain five lakes; 22.9 acres riparian habitat; 19.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat. While provision of these areas is considered a beneficial impact, Project implementation will nevertheless result in a net loss in open space land from The Preserve Specific Plan of 138.44 acres.
Goal G5-16 - Open Space for Outdoor Recreation: To maintain and encourage the development of open space for outdoor recreation.	Consistent. The Project includes three open space land use designations that would provide for recreational opportunities: Open Space-Water, Open Space-Natural, and Open Space-Recreation. Allowable uses under the Open Space-Recreation designation include sports fields, golf, equestrian facilities, multi-purpose trails, and parks. In addition, the Open Space-Natural and Open Space-Water designations provide for passive recreational activities and water activities, respectively
Appendix A Goal 1: To encourage the provision of recreation facilities in new residential subdivisions.	Consistent. The Project includes areas designated as Open Space, which establishes open space areas for active and passive recreation. Allowable uses in the Open Space-Recreation designation include sports fields, equestrian facilities, and multi-purpose trails. In addition to the areas designated for open space and recreational purposes, the Project would also connect to The Preserve's trail and paseo system.
Appendix A Goal 2: To acquire parkland in advance of urban development in an attempt to avoid high land costs.	Consistent. The Project provides areas for open space and recreationally-designated land. In addition, the Project connects with and builds upon the active and passive recreational opportunities already planned in The Preserve.
Appendix A Goal 3: To utilize innovative park design in relating various user groups and provide for low cost maintenance.	Consistent. The Project would construct water features through the use of the site's topography and conditions related to the 566' dam inundation elevation. These water features would add to the diversity of the open space areas within The Preserve as a whole.
Appendix A Goal 4: To determine current and future park and recreation requirements and design facilities and programs to satisfy the needs of residents.	Consistent. The Project has been designed in conjunction with the goals and objectives identified under The Preserve to provide an integrated system of open space, trails, and recreational facilities. The recreational system would utilize natural features and meet the recreational demands of the Project at build-out.
Appendix A Goal 5: To encourage the development of bicycle and equestrian paths and trails where planned.	Consistent. The Preserve Community Paseo and Open Space System is continued in the proposed Project, connecting the various features of the Project site and Project area. Bicycle paths will connect with major features of the Project area and with the regional bicycle system, composed of on-street and off-street pathways. Equestrian paths and trails are also included in The Preserve and Edgewater Project.

General Plan Goal	Project Consistency Analysis
Noise Element	
Goal G6-1 – Protect Public Health, Safety & Welfare: Protect the public health, safety and general welfare by eliminating existing noise problems and by preventing significant degradation of the future acoustic environment through the establishment of standards that specify acceptable limits of noise for land uses throughout the City.	Consistent. The Chino Airport is located immediately north of The Preserve Specific Plan area. The Project would not locate noise sensitive and inappropriate uses within the adopted noise and restricted safety zones. Vehicular noise may also impact noise sensitive uses. Landscaped setbacks and paseos along Chino Corona Road will provide pedestrian and bicycle mobility options, and also help to reduce the impact of vehicular noise from Chino Corona Road on adjacent planned noise sensitive uses.
Seismic and Public Safety Element	
General Goal: To reduce loss of life, injuries, damage to property and social economic dislocations resulting from seismic geologic hazards.	Consistent. There are no known active or potentially active faults crossing the Project site. The site is not within a designated Alquist-Priolo Earthquake Fault Zone. The site is located within close proximity to several surface faults that are presently zoned as active or potentially active by the California Geological Survey (CGS) pursuant to the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act. The nearest of these faults is the Chino-Central Avenue Fault, which is located approximately 5.1 kilometers (1.8 miles) northwest of the Project site and trends northwest-southeast. Impacts associated with seismic activity are analyzed in Section 4.6, Geology and Soils, and mitigation measures are provided to reduce impacts related to this issue.
General Goal: To prevent injury or loss of life and damage to property due to flooding hazards.	Consistent. The Project proposes to alter portions of the Project site in order to raise areas proposed for residential development above the 566' Prado Dam Inundation line. Additionally, storm drain facilities are proposed that would accommodate storm water flows onto and off the Project site. Project impacts related to flooding are addressed in Draft EIR Section 4. 8, Hydrology and Water Quality.
General Goal: To reduce loss of life, injuries, damage to property, and natural resources due to wildland fires.	Consistent. Project implementation will extend the perimeter of developed areas further south. The Project site is outside the areas that have been previously planned for development. This notwithstanding, development within the City of Chino is required to comply with the City's Building Standards and Fire Code, and all other current fire protection requirements. The Chino Valley Independent Fire District has indicated that a 100-foot fuel modification zone may be required at the perimeter of site development. Multiple points of vehicular access and egress are required to all areas of the development. Any gated entries and/or traffic signals proposed by the Project would include emergency response signal control devices. The threat posed by wildland fire risk should be reduced by these measures.
General Goal: To reduce loss of life, injury and loss or damage to property by considering crime prevention in site planning and development design.	Consistent. Project design is subject to City review. The Preserve's Design Guidelines and policies require a consideration of safety and crime prevention in new projects within the Specific Plan area. Edgewater Project Design Guidelines would be expected to reflect this same consideration of safety and crime prevention.
Source: City of Chino General Plan, The Preserve Specific Plan, PBR, Michael Brandman Associates.	

Consistency with The Preserve Specific Plan

The Preserve Specific Plan designates properties below the 566' Prado Dam Inundation line for open space or agricultural land use designations, with limited exceptions (Exhibit 3-7). The Edgewater Project proposes to alter portions of the Project site in order to raise areas proposed for residential development above the 566' Prado Dam Inundation line. In the existing condition, 35 acres are above the 566' elevation and 238 acres are below. In the developed condition, 141 acres would be above the 566' elevation and 132 acres would be below. Through an Amendment to The Preserve Specific Plan, the Project proposes to remove the Estate Residential land use designation (permitting 7 dwelling units) and Agricultural/Open Space-Natural land use designation from the Project site, and add low, medium, and high density residential land use designations to the Project site. Exhibit 3-9 integrates proposed Edgewater land use designations into The Preserve Specific Plan. Exhibit 3-9 also contains a table comparing acreages within land use designations under The Preserve Specific Plan and as amended for the Edgewater Communities Project.

Table 4.9-1 provides a comparison of acreages and dwelling units for the Project site under The Preserve Specific Plan and as amended for the Edgewater Communities Project. The proposed Project will increase acreage devoted to residential uses within the Project site by 138.44 acres (see Table 4.9-1, 142.09 acres as amended vs. 3.65 acres currently), and reduce open space and agricultural areas within the site by a comparable 138.44 acres. This proposed change in land use designations conflicts with The Preserve Specific Plan land use and zoning which restricts properties below the 566' elevation to open space and agricultural uses. By amending The Preserve Specific Plan to allow residential development of the Edgewater Project site, thereby increasing the acreage devoted to residential uses by 138.44 acres, a substantial deviation would occur from the original Preserve Specific Plan and open space provision. It should be noted that the 130.84-acre area retained as open space within the proposed Project would contain five lakes, 22.9 acres of riparian habitat, 29.7 acres of restored native grassland habitat, 10.8 acres of basin habitat, and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat. Provision of these areas is considered a beneficial impact; however, Project implementation will result in a net loss in open space land from The Preserve Specific Plan of 138.44 acres. This is considered a significant land use and planning impact.

Design guidelines and development standards will be developed for the Edgewater Project. These guidelines and standards would correlate to those of The Preserve Specific Plan. A specific objective of the Edgewater Project is to integrate the proposed Project with The Preserve Specific Plan in terms of development regulations, traffic and circulation, open space system, infrastructure and landscaping.

Consistency with The Preserve Area Plan

Project implementation will require preparation of an Area Plan for the Edgewater site, which can serve as the General Plan Amendment for the proposed Project. The Area Plan for the Edgewater site would link the Specific Plan, as amended to reflect proposed Edgewater land use designations, and the General Plan, thereby providing consistency with the General Plan.

Consistency with SCAG Regional Comprehensive Plan and Guide

The SCAG Regional Comprehensive Plan and Guide (RCPG) states the region's forecasts and policies for dealing with anticipated growth, including population, housing, and employment throughout Southern California. Table 4.9-3 below provides an analysis of the Project's consistency with applicable policies from the RCPG.

Table 4.9-3: SCAG Regional Comprehensive Plan and Guide (RCPG) Consistency Analysis

RCPG Policy	Project Consistency Analysis
Growth Management Chapter	
3.01 - The population, housing, and job forecast, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.	Consistent. The proposed Project would result in an immediate increase in the number of housing units available in the area, providing housing opportunities for employees of nearby workplaces. This EIR utilizes the most recent population, housing, and job forecast data published by SCAG in all applicable areas of analysis.
3.03 - The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.	Consistent. The public utility systems of the Project are designed to accommodate the buildout of the proposed Project. The Project includes a potable water system, a reclaimed water system, a sewer system, and a storm drainage system. Phasing and financing plans contained in the Project Amendment to the Specific Plan will guide the orderly development of the infrastructure in order to be in place to serve the new development. The roadway improvements for the Project site are designed to establish a close relationship between the proposed Project and The Preserve. The Project roadway system consists of several roadway classifications that accommodate varying amounts of traffic. The roadways reflect those identified in The Preserve Specific Plan
3.04 - Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.	Consistent. The Project proposes to develop a range of housing types including low density single-family residential units and multi-family units. Accordingly, the Project would provide housing opportunities that would match a range of jobs in the region. Therefore, the Project would help to achieve a balance between the types of housing available in the City of Chino and the types of jobs that the City seeks to attract.
3.05 - Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.	Consistent. The Project would construct infrastructure improvements that would serve the Project site, including roadways, potable and recycled water, sewer, and storm drain facilities. Additionally, the Project would be located just south of other developed areas in The Preserve Specific Plan, thereby extending urban uses.
3.06 - Support public education efforts regarding the costs of various alternative types of growth and development	Not applicable.
3.07 - Support subregional policies that recognize agriculture as an industry, support the economic viability of agricultural activities, preserve agricultural land, and provide compensation for property owners holding lands in greenbelt areas.	Inconsistent. Implementation of the proposed Project will result in the conversion of 170.4 acres of Prime and Unique Farmland now designated for agricultural and open space uses into non-agricultural uses. Conversion to urban uses was not intended by the City for this area.

RCPG Policy	Project Consistency Analysis
3.08 - Encourage subregions to define an economic strategy to maintain the economic vitality of the subregion, including the development and use of marketing programs, and other economic incentives, which support attainment of subregional goals and policies.	Consistent. The proposed Project would increase the housing supply for the subregion, including providing a range of residential types. The Project's contribution toward the availability of housing in the area would help to ensure the economic viability of the subregion. The Project would not interfere with any defined economic strategies for the subregion, including marketing programs or other economic incentives.
3.09 - Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.	Consistent. The public utility systems of the Project are designed to accommodate the buildout of the proposed Project. Phasing and financing plans contained in the Project Amendment to the Specific Plan will guide the orderly development of the infrastructure in order to be in place to serve the new development. Financial impacts to the City should be minimized.
3.10 - Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.	Consistent. The Project applicant is working closely with the City of Chino to ensure that all applicable regulations are met, and to facilitate processing of the Project in a timely manner.
3.11 - Support provisions and incentives created by local jurisdictions to attract housing growth in job-rich subregions and job growth in housing-rich subregions.	Consistent. The proposed Project will provide housing and limited employment.
3.12 - Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.	Consistent. The Project has been designed to help reduce the number and length of vehicle trips by clustering residential land uses within the medium and high density areas, and by the installation of trails. The Project site is located in close proximity to The Preserve Community Core, allowing convenient access to services, entertainment, employment, and cultural experiences. The Project includes and is connected to an extensive trail and paseo system that provides convenient access to all areas of the Project site, The Preserve, and neighboring facilities.
3.13 - Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.	Consistent. Implementation of the proposed Project would extend development further south below Chino Corona Road, thereby extending the urbanized area that is planned to border the Community Core on the south. Local transit stops in the City of Chino are intended to serve major features, such as the Community Core. Though the Project would not qualify as infill or redevelopment, the Project would not conflict with this policy.
3.14 - Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.	Consistent. The Project would be developed in close proximity to the Community Core, and would be connected to this area by a network of trails and paseos, and local collector roads. The Community Core would provide future residents of the Project site with access to commercial and cultural activities.
3.15 - Support local jurisdictions' strategies to establish mixed-use clusters and other transit-oriented developments around transit station and along transit corridors.	Consistent. The Project would be developed in close proximity to the Community Core, and would be connected to this area by a network of trails and paseos, and local collector roads. The Community Core would provide future residents of the Project site with access to commercial and cultural activities.

RCPG Policy	Project Consistency Analysis
3.16 - Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment.	Consistent. The Project would be located near the Community Core, a planned commercial and cultural activity center. Trails and paseos would connect the Project site with the Community Core, providing pedestrian access to this area and acting to reduce vehicular trips to the Community Core.
3.17 - Support and encourage settlement pattern, which contain a range of urban densities.	Consistent. The Project contains a range of residential densities, including low-, medium-, and high-density residential land uses.
3.18 - Encourage planned development in locations least likely to cause environmental impact.	Inconsistent. Portions of the Project site currently lie within the Prado Dam Inundation area. Upon completion of Project improvements, however, the residential portions of the proposed Project would be elevated above 566' the Dam Inundation area boundary. The Project is also proposing to preserve 130.84 acres for permanent conservation, involving habitat creation and enhancement. Significant environmental impacts are expected to occur, however, at the project and/or cumulative level, on aesthetics, agricultural resources, air quality and climate change, biological resources, land use and planning, population and housing, and transportation/traffic (see Section 2).
3.19 - National forests shall remain permanently preserved and used as open space. SCAG shall support policies and actions that preserve open space areas identified in local, state, and federal plans.	Consistent. Project implementation will not interfere with continued preservation of open space areas within nearby local, state, and federal facilities within the Prado Basin.
3.20 - Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.	Consistent. The Project includes three open space land use designations that are intended to allow for the preservation of natural resources: Open Space-Water, Open Space-Natural, and Open Space-Recreation. The area retained as open space within the proposed Project would contain five lakes; 22.9 acres of riparian habitat; 19.7 acres of restored native grassland habitat; 10.8 acres of basin habitat; and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat. Impacts associated with plant and wildlife habitat are addressed in Section 4.4, Biological Resources, and mitigation measures are provided to reduce impacts.
3.21 - Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.	Consistent. Section 4.5, Cultural Resources, identifies mitigation measures that would be implemented during grading and construction of the Project in order to protect cultural resources and archeological sites.

RCPG Policy	Project Consistency Analysis
3.22 - Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.	Consistent. Project implementation will extend the perimeter of developed areas further south. The Project site is outside the areas that have been previously planned for development. This notwithstanding, the Project has been designed to avoid hazards associated with fire, flood and seismic hazards. No steep slopes occur within the Project site. Also, development within the City of Chino is required to comply with the City's Building Standards and Fire Code, and all other current fire protection requirements. The Chino Valley Independent Fire District has indicated that a 100-foot fuel modification zone may be required at the perimeter of site development. Multiple points of vehicular access and egress are required to all areas of the development. Any gated entries and/or traffic signals proposed by the Project would include emergency response signal control devices. The threat posed by wildland fire risk should be reduced by these measures.
3.23 - Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.	Consistent. Each of these issue areas (noise, biological and ecological resources, seismic hazards, and emergency planning and response) are addressed in the appropriate sections of this Draft EIR (4.11, 4.4, 4.6, and 4.7, respectively). In each case, impacts are either deemed to be less than significant, or mitigation measures are provided to reduce impacts.
3.24 - Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.	Consistent. The proposed Project would housing with a range of dwelling types in order to help meet City housing needs.
3.25 - Encourage the efforts of local jurisdictions, employers and service agencies to provide adequate training and retraining of workers and prepare the labor force to meet the future challenges of the regional economy.	Not applicable.
3.26 - Encourage employment development in job-poor localities through support of labor force retraining programs and other economic development measures.	Not applicable.
3.27 - Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.	Consistent. The Project would provide housing, offering a range of dwelling types and prices. Project implementation would not conflict with the other aspects of this SCAG RCPG policy.

RCPG Policy		Project Consistency Analysis
Air Quality Chapter		
5.07 - Determine specific programs and associated actions needed (e.g. indirect source rules, enhanced use of telecommunications provision of community-based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulation can be assessed.		Not applicable.
5.11 - Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional, and local) consider air quality, land use, transportation, and economic relationships to ensure consistency and minimize conflicts.		Consistent. This Draft EIR addresses air quality and climate change, land use, and transportation impacts that are anticipated to occur with implementation of the proposed Project. The EIR analysis considers all relevant planning documents, such as the AQMP. The EIR provides mitigation measures to reduce significant environmental impacts to a less than significant level, where possible. As such, the proposed Project would be consistent with this policy.
Open Space And Conservation Chapter		
9.01 - Provide adequate land resources to meet the outdoor recreation needs of the present and future residents of the region and to promote tourism in the region.		Consistent. The Project includes three open space land use designations that would provide for recreational opportunities: Open Space-Water, Open Space-Natural, and Open Space-Recreation. Allowable uses under the Open Space-Recreation designation include sports fields, golf, equestrian facilities, multi-purpose trails, and parks. In addition, the Open Space-Natural and Open Space-Water designations provide for passive recreational activities and water activities, respectively.
9.02 - Increase the accessibility to open space lands for outdoor recreation.		Consistent. Open space area currently existing within agricultural lands onsite is privately owned and not utilized for recreational purposes. Project implementation would create outdoor recreational opportunities for residents of the Project site and Project area.
9.03 - Promote self-sustaining regional recreation resources and facilities.		Consistent. Extensive regional recreation facilities are located in the Prado Basin. Project implementation will not interfere with continued preservation of open space areas within nearby local, state, and federal facilities within the Prado Basin.
9.04 - Maintain open space for adequate protection to lives and properties against natural and manmade hazards.		Consistent. The Project proposes open space areas in portions of the Project site that would continue to be exposed to hazards associated with dam inundation. Accordingly, the Project would be consistent with this policy.
9.05 - Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards and areas with limited access for emergency equipments.		Consistent. Project implementation will extend the perimeter of developed areas further south. The Project site is outside the areas that have been previously planned for development. This notwithstanding, the Project has been designed to avoid hazards associated with fire, flood and seismic hazards. No canyons or hillsides occur within the Project site. Also, development within the City of Chino is required to comply with the City's Building Standards and Fire Code, and all other current fire protection requirements. The Chino Valley Independent Fire District has indicated that a 100-foot fuel modification zone may be required at the perimeter of site development. Multiple points of

RCPG Policy	Project Consistency Analysis
	vehicular access and egress are required to all areas of the development. Any gated entries and/or traffic signals proposed by the Project would include emergency response signal control devices. The threat posed by wildland fire risk should be reduced by these measures. Impacts associated with seismic hazards, wildfire, and other known hazards are further analyzed in this Draft EIR and mitigation is provided where impacts are determined to be potentially significant.
9.06 - Minimize public expenditure for infrastructure and facilities to support urban type uses in areas where public health and safety could not be guaranteed.	Consistent. Project implementation would extend development into an area not previously anticipated for provision of services by emergency service providers. With payment of required development impact fees, however, and adherence to all applicable codes and regulations, impacts to emergency service providers would be considered less than significant and public safety would be guaranteed. Therefore, the Project can be considered to be consistent with this policy.
9.08 - Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.	Consistent. The Project includes three open space land use designations that are intended to allow for the preservation of natural resources: Open Space-Water, Open Space-Natural, and Open Space-Recreation. The area retained as open space within the proposed Project would contain five lakes; 22.9 acres of riparian habitat; 19.7 acres of restored native grassland habitat; 10.8 acres of basin habitat; and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat. Impacts associated with plant and wildlife habitat are addressed in Section 4.4, Biological Resources, and mitigation measures are provided to reduce impacts.
Water Quality Chapter	
11.01 - Streamline water quality regulatory implementation. Identify and eliminate overlaps with other regulatory programs to reduce economic impacts on local businesses.	Consistent. The Project would be required to comply with all local, State, and federal regulations related to water quality. The project would be consistent with this policy.
11.02 - Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.	Not applicable.
11.05 - Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.	Consistent. The area retained as open space within the proposed Project would include five lakes, 22.9 acres of riparian habitat, and 10.8 acres of basin habitat. The proposed Project will not interfere with implementation of the Mill Creek Wetlands Recreation Plan, proposed by the City of Ontario and the County of San Bernardino.
11.07 - Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.	Consistent. The Project proposes to construct onsite reclaimed water lines to distribute recycled water to the Project site for use. The proposed water features would be filled and maintained using reclaimed water. Additionally, reclaimed water is proposed for use in landscaping throughout the Project site.

Consistency with SCAG Regional Transportation Plan

The Regional Transportation Plan (RTP) was adopted by SCAG in April 2004 and contains a set of existing socioeconomic projections that are used as the basis for SCAG's transportation planning efforts. The RTP includes projections of population, housing, and employment at the regional, county, sub-regional, jurisdictional, census tract and transportation analysis zone levels. The RTP includes policies and regulations set forth to ensure that development within the SCAG regional area is within planned and forecast future socioeconomic projections. The proposed Project would be required to adhere to the City of Chino General Plan, which contains goals and policies ensuring that traffic congestion is reduced, that adequate transportation facilities are provided, and that new development pays its fair share of costs associated with the mitigation of Project-generated impacts. Because the Project would be consistent with the City's General Plan, the Project would be consistent with policies set forth in the RTP.

Conclusion

As indicated in the foregoing analysis, the Edgewater Communities Project has a high level of consistency with many applicable plans and policies. There are also many beneficial aspects of the Project land use plan. The organic material, and wastewater from onsite and neighboring dairies that is contained within the Project site would be removed/recycled through Project implementation. The 130.84-acre area retained as open space within the proposed Project would contain five lakes, 22.9 acres of riparian habitat, 29.7 acres of restored native grassland habitat, 10.8 acres of basin habitat, and an increased area of 2.1 acres of suitable least Bell's vireo (LBV) habitat. Project implementation will nevertheless result in the conversion of 138.44 acres designated for open space and agricultural uses under The Preserve Specific Plan to urban uses. Conversion of this acreage to urban uses was not anticipated by the City. This is considered a significant land use and planning impact.

Level of Significance Before Mitigation

Significant. [CEQA Land Use and Planning 9(b)]

Mitigation Measures

Other than Project design to preserve and enhance remaining open space areas, no feasible mitigation measures are available.

Level of Significance After Mitigation

Significant. [CEQA Land Use and Planning 9(b)]

Conflict with Conservation Plans

Impact 4.9-3: Development of the Project site as proposed will conflict with an approved Resource Management Plan and The Preserve Final EIR mitigation measures designed to reduce impacts of the Preserve Specific Plan to below a level of significance.

[CEQA Land Use and Planning 9(c)]

Impact Analysis**Candidate Conservation/Relocation Area**

Final EIR and RMP Mitigation Measure B-3 requires a 300-acre conservation area to be established for the purposes of providing high quality wildlife habitat. Although a 322-acre site was acquired for conservation in the City of Chino Hills, now part of Chino Hills State Park, this site does not provide suitable burrowing owl (BUOW) habitat. The 2003 RMP states that “a burrowing owl Candidate Relocation Area will be established only if the 300-acre Conservation Area is not situated or does not provide the requisite habitat elements to accommodate relocated burrowing owls” (RMP, p. 4-25). Four Candidate Conservation/Relocation Areas with high-quality BUOW habitat were identified in the 2003 RMP. One Candidate Conservation/Relocation Area, containing 54 constructed BUOW burrows, is located northwest of the Project site. Specifically, the area is located south of Kimball Avenue, east of Rincon Meadows Avenue, and west of Mill Creek Avenue, and is known as Drainage Area B. The remaining three Candidate Conservation/Relocation Areas are in the vicinity of the Project site and portions of two of these three areas are contained within the Edgewater Project site (totaling approximately 177 acres, see Exhibit 4.4-4). By withdrawing a portion of two Candidate Conservation/Relocation Areas through Project implementation, development of the Project site as proposed would reduce the amount of land available for additional constructed BUOW burrows. Project design and implementation of mitigation measures will ensure that BUOW habitat to mitigate Project impacts is created and protected. Suitable acreage to replace property within the Project site now contained within two Candidate Conservation/Relocation Areas has been identified within areas outside the Project site through the Amendment to the 2003 Resources Management Plan to include the Edgewater Project. In addition to any acreage provided within future Conservation/Relocation Areas, approximately 30 acres on the eastern portion of the Project site will be restored to a grassland community to provide raptor foraging habitat.

Open Space/Open Land Below the 566-Foot Elevation

As mitigation for the development of 2,600 acres above the 566-foot elevation line, The Final EIR and RMP Mitigation Measure B-1 (Provision 1) designated as open space and agriculture uses for the area below the 566’ dam inundation line (with the exception of a single 55-acre parcel that extends above Pine Avenue along the western boundary of The Preserve). Current land use designations below the 566’ dam inundation line include Open Space-Recreational (OS-R), Agricultural (AG), Agricultural/Open Space-Natural (AG/OS-N), and Open Space Natural (OS-N). Both a General Plan Amendment and a Specific Plan Amendment are required to permit the proposed Project uses within the Edgewater site. By amending the General Plan and zoning designations to permit urban uses on the Edgewater site (representing a net increase in urban uses of 138.44 acres within the Edgewater

Project site), the first provision of Final EIR and RMP Mitigation Measure B-1 would no longer be applicable.

Least Bell's Vireo Critical Habitat

Three territories of least Bell's vireo (*Vireo bellii pusillus*) (LBV), a federally and state endangered species, were identified along the portion of Mill Creek within and adjacent to the Project site (see Exhibit 4.4-2). LBV would utilize the riparian habitat associated with Mill Creek for both foraging and breeding opportunities. The Project site includes a total of 56.5 acres of LBV designated Critical Habitat, as mapped by the U.S. Fish and Wildlife Service (USFWS). The extent of critical habitat within the Prado Basin, as stated in the Federal Register (1994) and included in the Project Biological Technical Report, consists of "All lands below the 543-contour in partially surveyed Township 3 South, Range 7 West within the Prado Flood Control Basin." Much of the 56.5 acres of designated LBV Critical Habitat within the Project site (or approximately 38.1 acres) is comprised of upland agricultural fields, cattle facilities, and ruderal areas. The 38.1 acres does not contain any suitable habitat for LBV due to the absence of any primary constituent elements (PCEs), which generally include riparian vegetation. The remaining 18.4 acres of designated Critical Habitat provides suitable LBV habitat, but will be avoided and buffered.

Riparian habitat will be created along the margins of the Project lakes, which may become occupied by LBV in the future, establishing greater suitable habitat for LBV (a net gain of approximately 2.1 acres when the final phase of the project is completed in 2019) than provided under the existing condition.

A Flood Easement Exchange will be required between the Applicant and USACE for development of any properties within the Prado Basin below the 566-foot elevation. The USACE may consult with the USFWS under Section 5.7 of the Endangered Species Act to ensure that the modification of designated Critical Habitat, as mapped by USFWS, does not affect the species. Since no PCEs are contained within the 38.1 acres of Critical Habitat that will be modified, the USACE would be expected to issue a "No May Affect" determination. The USACE could also decide to issue a "No May Affect" determination without consulting USFWS if they feel sufficient evidence has been provided that no suitable habitat will be removed.

Urban Buffer/Transition Area

Development of the Project site will necessitate relocating the urban buffer/transition area south, east, and west of the Edgewater Communities site. The intent of the urban buffer/transition area is to limit urban intrusion into areas with habitat value that are below the 566' dam inundation line. The buffer is to be designed to provide for limited access to habitat areas and is to include provisions for the logical transition between urban structures/uses and habitat areas. Implementation of the proposed Project, increasing the acreage above the 566' line from 35 acres in the existing condition to 141 acres in the developed condition, will result in the relocation of the urban buffer/transition area in

order to separate proposed Project urban structures/uses from habitat areas within and surrounding the Project site.

Level of Significance Before Mitigation

Potentially significant. [CEQA Land Use and Planning 9(c)]

Mitigation Measures

Implement Edgewater Project Biological Resources Mitigation Measures.

Level of Significance After Mitigation

Significant. [CEQA Land Use and Planning 9(c)]

Cumulative Impacts

Impact 4.9-4:	Project implementation will result in a significant and irretrievable cumulative loss of open space and agricultural lands, and contribute to the cumulative land use conflicts and compatibility problems associated with long-term transition of dairylands to urban uses.

Impact Analysis

The proposed Project will contribute to significant cumulative losses of open space and Prime and other important farmlands within the region. The proposed Project will contribute to the cumulative land use conflicts and compatibility problems identified in The Preserve EIR during the long-term transition of the greater Chino Valley dairylands to urban uses, since Project implementation will establish a residential development in between existing dairies to the east and west of the Project site that will remain.

In the existing condition, 35 acres within the Project site are above the 566' inundation line. In the developed condition, an additional 106 acres would be elevated above the 566' elevation. Project implementation will also result in a cumulative land use and planning impact by contributing to the precedent of allowing development within and below the current 566' inundation line for the Prado Basin. Contribution to this precedent and the possible conversion of additional lands within the Prado Dam Inundation area designated for open space and agricultural uses by The Preserve Specific Plan would further contribute to the loss of open space and agricultural resources in the region.

The proposed Project will contribute to the continued and cumulative loss of open space and agricultural lands within the region. The Project will also contribute to the cumulative land use conflicts and compatibility problems associated with long-term transition of dairylands to urban uses until which time as the dairylands are converted to urban uses. The impact is a significant cumulative impact.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

Other than Project design to preserve and enhance remaining open space areas, no feasible mitigation measures are available.

Level of Significance After Mitigation

Significant.

4.9.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.9-4 below, provides a cross reference summary between Edgewater Communities Mitigation Measures and Project design features with The Preserve EIR Mitigation Measures.

Table 4.9-4: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Land Use and Planning

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
Edgewater Project design, resulting in the retention of 130.84 acres as open space, together with implementation of Project Biological Resources Mitigation Measures addressing open space loss, will reduce Project impacts on open space, although not to a less than significant level.	The Preserve Specific Plan designated areas below the 566' elevation for open space and agricultural uses.	Edgewater Project implementation will: 1) allow conversion of 170.4 acres of Prime and Unique Farmland within the Project site; and 2) remove 138.44 acres from agricultural and open space land use designations to permit residential use. Conversion to urban uses was not anticipated by the City for this area.
Edgewater Project site does not lie directly adjacent to the Correctional Institution for Women (CIW-Chino). Project site is separated from CIW-Chino by the OCFCD property at Chino Corona Road and Cucamonga Avenue.	LU-2. Correctional Institution for Women (CIW-Chino). Creation of adequate buffer and separation between CIW-Chino and residential uses.	Project does not conflict with Preserve Mitigation Measure LU-2.
Edgewater Project site lies primarily within the 900 foot elevation Primary Safety Zone, and the 1000 foot elevation Primary Safety Zone. These areas are subject to height restrictions in order to minimize	LU-1. Chino Airport Influence Area. Imposes noticing requirement and coordination to ensure compatibility with airport operations.	Project does not conflict with Preserve Mitigation Measure LU-1.

Table 4.9-4 (Cont.): Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Land Use and Planning

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
obstructions to air navigation. Restriction far exceeds anticipated height of proposed structures within the Project.		
Notes: Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.10 - Mineral Resources

4.10.1 - Introduction

This section describes the existing mineral resource conditions and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information obtained from websites for the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR); and the Bureau of Land Management (BLM); and Project site Phase I Environmental Site Assessments, contained in Appendix G:

- Laguna Geosciences, Inc. Phase I Environmental Site Assessment. February 2004.
- URS Corporation. Phase I Environmental Site Assessment and Phase II Soil Investigation, Stueve Brothers Dairy.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on mineral resources were contained in letters submitted to the City.

4.10.2 - Existing Conditions

San Bernardino County, containing diverse mineral resources, is a principal production area for sand and gravel, decorative rock, stone, limestone, clay, silica, volcanic cinder, salt, iron ore, talc, shale, pumice, saline compounds, and gold. The Project site is not contained within an area of high mineral resource value, however. Alluvial channels exist within and east of the site associated with Mill Creek, and generally consist of mixtures of light brown to brown silts and sands with some clays likely derived from sediment deposited by Mill Creek. The Mill Creek area is not considered a potential source of sand and gravel resources, however. In addition, no significant mineral resources were identified within The Preserve Final EIR.

Oil and Gas Resources

Oil and gas resources are not a critical element of San Bernardino County's economy. According to the 2005 Annual Report prepared by the State Oil and Gas supervisor (California Department of Conservation), there are only 9 active oil wells in the County, accounting for less than one percent of the total crude oil produced in California. There are currently no oil and gas production wells within the Project site or on adjacent properties, and no mining activities are occurring within the Project site or adjacent properties. Based on DOGGR records, the closest oil or gas well to the Project site is an inactive well approximately 0.25 miles north, located within Section 33 of Township 2 South, Range 7 West. Field work during the Phase I Environmental Site Assessments prepared for the Project site (Laguna Geosciences, 2004, and URS, 2006) observed four irrigation and/or production water wells within the site boundary. These water wells are addressed in EIR Section 4.8, Hydrology and Water Quality.

Mineral Resources

San Bernardino County contains rare earth mine, gold mine, sand and gravel operations, and limestone quarries. For the period between 2002 and 2003, the assessed values of mineral properties in the County exceeded \$1 billion. Neither the Project site nor adjacent properties are engaged in the production of mineral resources, however. No evidence of past mining operations were observed at the Project site or surrounding areas during site visits conducted by MBA during the preparation of this Draft EIR and/or supporting technical studies.

Construction Materials

Identified in California as important for construction, development, and physical maintenance, sand and gravel operations are protected in the State of California. Sand and gravel deposits in San Bernardino County occur primarily in the southwest portion of the County, and are considered principal minerals of the County. The Project site is located within the Chino Basin on a thick accumulation of alluvial fan deposits derived from surrounding ranges. The deposits consist of varicolored silts and sands with some clays and gravels. No significant sand and gravel resources are contained within the Project site and adjacent areas, however, and no deposits are currently being mined or are considered suitable for recovery within the Project site.

4.10.3 - Regulatory Setting

The following discussion addresses the regulatory environment for mineral resources at the Federal, State, and City level.

Federal**Bureau of Land Management**

The Bureau of Land Management (BLM), an agency within the United States Department of the Interior, administers 261 million surface acres of America's public lands, located primarily in 12 Western States. The BLM sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. The public lands provide myriad opportunities for commercial activities. Commercially valuable natural resources include energy and mineral commodities, forest products, grazing forage, and special uses such as rights-of-way for pipelines and transmission lines. The BLM is responsible for: 1) managing commercial energy and mineral production from the public lands in an environmentally sound and responsible manner; 2) the leasing of Federal oil, gas and geothermal minerals; 3) supervising the exploration, development, and production operations of these resources on both Federal and Indian lands; and 4) maintaining viable national policies and processes for solid mineral resources under Federal jurisdiction (solid minerals include coal and non-energy leasable minerals, hard rock minerals on acquired lands, locatable minerals, and salable minerals).

State

Division of Oil, Gas, and Geothermal Resources

The Division of Oil, Gas, and Geothermal Resources (DOGGR) within the State Department of Conservation supervises the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells to protect the environment, public health and safety, and encourage good conservation practices. DOGGR collects data on the location of groundwater, oil, gas, and geothermal resources, and records the location of all drilled and abandoned wells.

Division of Mines and Geology

The Division of Mines and Geology (DMG) within the State Department of Conservation has responsibility to identify and assist in the utilization of mineral deposits, and to identify geological hazards, including fault locations.

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code, 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.

City of Chino

General Plan

The City of Chino General Plan, Conservation/Open Space Element identifies the following goal for mineral resources:

- G5-9** To encourage the conservation of mineral resources, including rock, sand and gravel resources.

The Preserve Specific Plan and EIR

There are no known mineral resources within The Preserve Specific Plan area. Mineral resources were, therefore, not identified as an allowable use within The Preserve, and were not analyzed in The Preserve EIR. No mineral resources are known to exist within the Project site.

4.10.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to mineral resources are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

- a.) 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?
- b.) 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?

4.10.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project. No summary comparison is included here of mineral resource impacts under The Preserve Specific Plan and impacts under The Preserve Specific Plan as amended for the Edgewater Communities Project because: 1) there are no known mineral resources within The Preserve, and specifically, no mineral resources are known to exist within the Project site; and 2) mineral resources were not identified as an allowable use within The Preserve and, therefore, were not analyzed in The Preserve EIR.

Loss of Mineral Resources

Impact 4.10-1:	The Project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; The Project will also not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. [CEQA Mineral Resources Thresholds 10(a) and 10 (b)]

Impact Analysis

The Project site has historically been used for agricultural purposes. There are no known mineral resources on the Project site or within The Preserve. Project implementation will, therefore, not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally-important mineral resource recovery site. Open space designations within the Project Plan (Open Space-Recreation, Open Space-Water, and Open Space-Natural) do present opportunities for conservation of resources. No impact on mineral resources from Project implementation will occur.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact.

Cumulative Impacts

Impact 4.10-2:	The Project will not contribute to the cumulative loss of known mineral resources that would be of value to the region and the residents of the state; nor will it contribute to the cumulative loss of availability of locally-important mineral resource recovery sites delineated on local general plans, specific plans or other land use plans.

Impact Analysis

No impact on mineral resources from Project implementation will occur, either at the project or cumulative level.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact.

4.10.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities, as appropriate, are included within the individual impact discussions contained in Section 4 of this Draft EIR.

No mitigation measures for mineral resource impacts were included in The Preserve EIR and have not been developed for the Edgewater Communities Project, based on: 1) the lack of known mineral resources within The Preserve, and specifically within the Project site boundary; and 2) mineral resources consequently not identified as an allowable use within The Preserve.

4.11 - Noise

4.11.1 - Introduction

This section describes the existing noise setting and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Traffic Impact Analysis prepared in November 2007 by Urban Crossroads, Inc. (contained in Appendix J in this EIR). Appendix I contains noise modeling output to support this technical noise analysis.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on noise or acoustical considerations were contained in letters submitted to the City.

4.11.2 - Existing Conditions

Acoustical Terminology

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure, a ratio of the faintest sound detectable by a keen human ear, is called a decibel (dB).

A decibel is a unit of measurement that indicates the relative intensity of a sound. The zero point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or fewer are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change more than 3 dB, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness. Because the human ear is not equally sensitive to all sound frequencies, a weighted scale called “A-weighting” is used because it most closely represents the range of human hearing. All further references will be on this scale, dBA.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or, alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL).

Many methods have been developed for evaluating community noise to account for, among others:

- Variation in noise levels over time
- Influence of periodic, individual loud events
- Community response to changes in the community noise environment

Several methods have been developed to measure sound over a period of time, including:

- Equivalent Sound Level (L_{eq})
- Community Noise Equivalent Level (CNEL)
- Day/Night Average Sound Level (L_{dn})

These methods are described and defined below.

L_{eq}

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time-varying period (called L_{eq}), or, alternately, as a statistical description of the sound pressure level that is exceeded over some fraction of a given observation period. For example, the noise levels exceeded on 10 percent of readings is called L_{10} , the median (50th percentile) reading is called L_{50} , etc.

CNEL

Because community receptors are more sensitive to unwanted noise intrusion during evening hours and at night, State law requires that, for planning purposes, an artificial dB increment penalty be added to quiet-time noise levels in a 24-hour noise descriptor called CNEL.

L_{dn}

Another commonly used method is the day/night average level or L_{dn} . The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq} . The L_{dn} is calculated by averaging the L_{eqs} for each hour of the day at a given location after penalizing the sleeping hours (defined as 10:00 p.m. to 7:00 a.m.) by 10 dBA to account for the increased sensitivity of people to noises that occur at night. The maximum noise level recorded during a noise event is typically expressed as L_{max} . The sound level exceeded over a specified time can be expressed as L_n (e.g., L_{90} , L_{50} , L_{10} , etc.). L_{50} equals the level exceeded 50 percent of the time, L_{10} equals the level exceeded 10 percent of the time, etc.

As previously mentioned, people respond to changes in sound pressure, which are measured on a noise scale in a logarithmic manner. In general, a 3-dB change in sound pressure level is considered a barely detectable difference in most situations. A 5-dB change is readily noticeable, and a 10-dB change is considered a doubling (or halving) of the subjective loudness. Note that a 3-dB increase or

decrease in the average traffic noise level is realized by a doubling or halving of the traffic volume, or by about a 7-mile-per-hour increase or decrease in speed.

For each doubling of distance from a point noise source, the sound level will decrease by 6 dB. In other words, if a person is 100 feet from a machine and moves 200 feet from that source, sound levels will drop by approximately 6 dB. Moving 400 feet away, sound levels will drop approximately another 6 dB. For each doubling of distance from a line source, such as a roadway, noise levels are reduced 3 to 5 decibels, depending on the ground cover between the source and the receiver.

Existing Noise Levels

The primary sources of noise in the vicinity of the proposed Project are vehicular traffic (along Chino Corona Road and Cucamonga Avenue, bounding the property on the north and west), agricultural and bird activity at the surrounding dairies, recreational activity at various other nearby facilities, aircraft activity at the Chino Airport, and agricultural activity at the fertilizer plant. A more detailed discussion of these noise sources is provided below. The nearest railroad line is approximately 3.5 miles to the south of the Project site, and based on the distance, would not affect noise in the Project vicinity.

Vehicular Traffic Noise Levels

Future peak hour traffic noise levels were modeled using the Federal Highway Administration Noise Prediction Model (FHWA-RD-77-108). The model calculates noise levels for varying traffic volumes and speeds. Noise model output worksheets for existing conditions, year 2019 with and without the Project, and year 2030 with and without the Project are included as Appendix I. Modeling was conducted using data from the Traffic Impact Analysis prepared by Urban Crossroads, Inc. (November 2007). Consistent with the requirements of the San Bernardino Congestion Management Program traffic study guidelines, all existing traffic data was converted to passenger car equivalents (PCE) in the Traffic Impact Analysis for the Project. PCE factors of 1.5 for buses/ recreational vehicles, 2.0 for 3-axle vehicles, and 3.0 for 4+-axle vehicles were used. The road segments analyzed are listed in the tables in Impact 4.11-3 below.

Airport Noise Levels

The Chino Airport is located approximately 1.5 miles north of the Project site. Based on the distance from the airport, aircraft noise constitutes an occasional short-term noise intrusion at the Project site. The expected contribution of aircraft flight noise averaged over a 24-hour CNEL exposure period would be insignificant at the Project site. The Chino Airport is classified as a Reliever Airport, due to its proximity to Ontario International Airport and John Wayne Airport. This airport is currently implementing several improvement and expansion projects. Upon completion of these projects, the airport will assume an increasingly important role in meeting the flying needs of the region it serves.

The Adopted Airport Noise Contours for the Chino Airport are shown in Exhibit 4.11-1. These are the most recent contours from the Airport Comprehensive Land Use Plan for the Chino Airport

(1991), as contained in The Preserve Final EIR (March 2003). With the emergence of more business jets and the extension of Runway 8R-26L, the aircraft fleet mix and noise levels from the Chino Airport are being modified. A Chino Airport Master Plan (2006) was prepared in order to plan for and predict future aviation demands, and accommodate for the development of new or expanded facilities. The Chino Airport Master Plan does not alter the airport noise contours reflected in Exhibit 4.11-1.

The Project site is located outside the 65 dBA noise contour, which extends only as far south as Kimball Avenue. The distance from the northern edge of the Project site to the 65 dBA contour is approximately 1.5 miles. Because airport noise levels would not exceed 65 dBA in the Project area, residents of the proposed Project would not be exposed to excessive noise levels. Additionally, the 2006 Chino Airport Master Plan, the most recent plan for airport use, does not alter airport noise contours. Based on the most current information available, the airport is not expected to result in future noise constraints on noise-sensitive planned land uses in the Project area. Aircraft overflights would be audible by future Project residents, although the noise levels would not be significant.

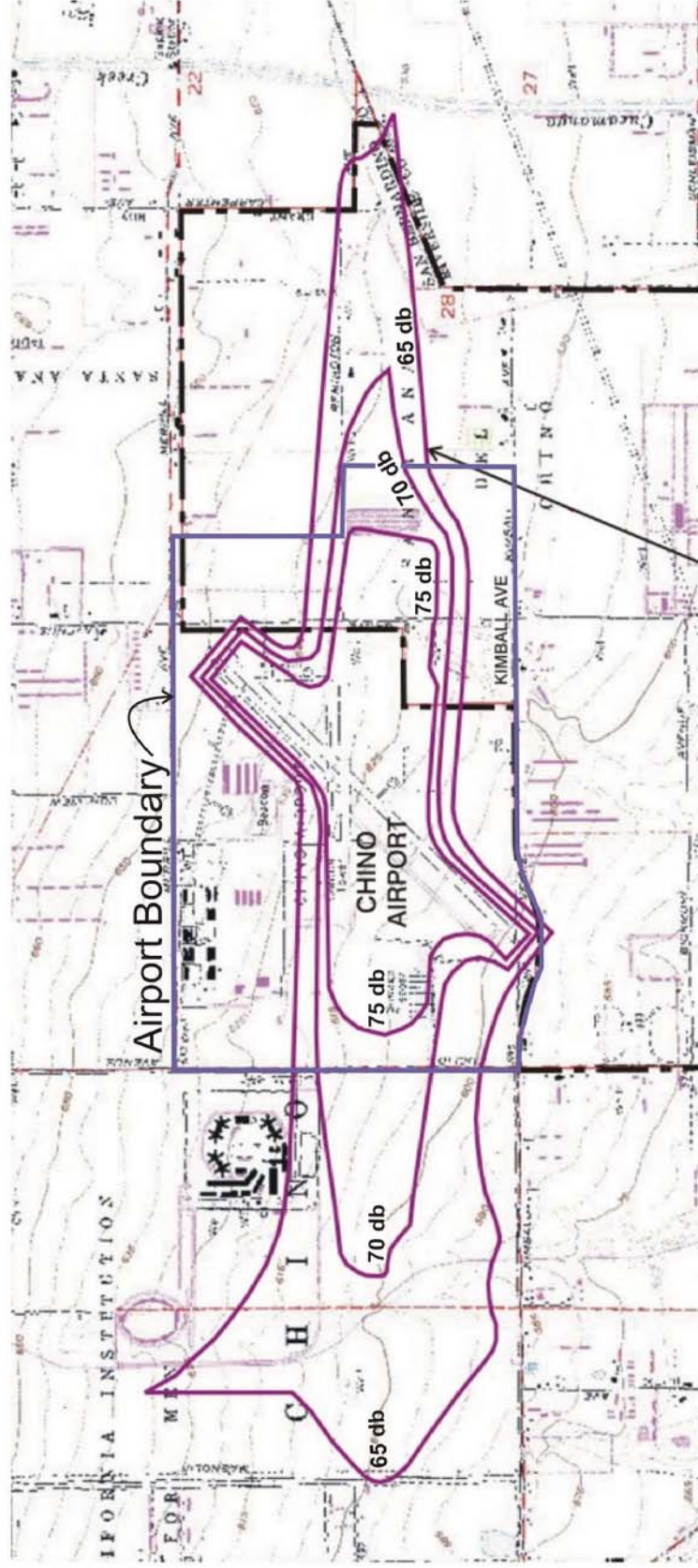
There are no other airports or airstrips in the Project vicinity.

Other Noise Levels

The following noise sources are located in the immediate vicinity of the Project site: existing dairy facilities, hunting club, paint ball facility, model airplane facility, equestrian facility, recycling/fertilizer plant, and small-scale plant nursery. There are two state correctional institutions located approximately 1,300 feet to the west and 2.25 miles to the northwest of the Project site. It is expected that no one facility would likely produce noise levels that would dominate the existing ambient noise levels, collective noise levels in the Project area would be expected to be fairly typical of these types of facilities. However, the operation of the recycling/fertilizer plant to the east of the Project may contribute to higher noise levels in the Project area.

Sensitive Receptors

Sensitive receptors are land uses that are sensitive to increases in ambient noise levels. The City of Chino General Plan Noise Element identifies residences, hospitals, senior facilities, churches, and schools as noise-sensitive land uses. The nearest existing sensitive receptors to the Project site are the rural residences associated with existing dairy facilities, located approximately 75 feet to the northeast and 75 feet to the west of the Project site, and the rural residences located approximately 100 feet to the west of the Project site. Existing sensitive receptors near the Project site are summarized in Table 4.11-1. Only those sensitive receptors not expected to be removed through future acquisition of property by the Army Corps of Engineers are included.



Adopted 65 db Noise Contour

60 db Airport Noise Contour

Note: Northern boundary of Edgewater Project site is approximately 1.5 miles south of the 65 db contour.

Source: The Preserve Final EIR, March 2003.



NOT TO SCALE
Michael Brandman Associates

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Exhibit 4.11-1 Adopted Airport Noise Contours

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Upon Project buildout, new sensitive receptors would be introduced to the Project site. The new sensitive receptors would include the residential portions of the site, as well as the church and school facility.

Table 4.11-1: Existing Sensitive Receptors

Receptor	Relationship to Project Site
Rural dairy residences along north side of Chino Corona Road east of Comet Avenue	75 feet to the northeast
Rural dairy residences along south side of Chino Corona Road between Comet Avenue and Cucamonga Avenue	75 feet to the west
Rural dairy residences along Cucamonga Avenue south of Chino Corona Road	100 feet to the west
Residents at the California Institution for Women	1,000 feet to the northwest of Project Site
Source: Michael Brandman Associates, 2007.	

4.11.3 - Regulatory Setting

State

CCR Title 24

A maximum interior of 45 CNEL is mandated by the State of California Noise Insulation Standards (CCR, Title 24, Part 6, Section T25-28) for multiple family dwellings and hotel and motel rooms. A 45 CNEL is also typically applied as a maximum noise exposure for single-family dwelling units. Since typical noise attenuation within residential structures with closed windows is about 20 to 25 CNEL, an exterior noise exposure of 65 CNEL is generally the noise land use compatibility guideline for noise-sensitive receiver sites in California. In many communities where a quiet environment is considered an important asset that enhances the natural scenic values, a somewhat more stringent land use compatibility guideline has often been adopted.

Local

City of Chino General Plan

City of Chino noise standards are established in the City of Chino General Plan Noise Element (1995), Table VI-4, similar to the State of California Office of Noise Control model element guidelines, which most standards are now based on. Exhibit 4.11-2 shows the City of Chino's Land Use Compatibility Matrix which provides the acceptable range of ambient noise levels for residential developments within the City of Chino. Exterior noise levels are normally compatible at 70 dB CNEL for residential.

The City of Chino General Plan Noise Element identifies goals and policies regarding noise and acoustical considerations, indicated in Table 4.11-2. Section 4.9, Land Use and Planning, Table 4.11-2 contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.11-2: Noise Element Goals and Policies

Reference	Description
Goal G6-1:	Protect Public Health, Safety & Welfare - Protect the public health, safety and general welfare by eliminating existing noise problems and by preventing significant degradation of the future acoustic environment through the establishment of standards that specify acceptable limits of noise for land uses throughout the City.
Policy P6-1.1	Noise and Land Use Planning Integration - Incorporate community noise considerations into the land use planning process that will help prevent future noise and land use incompatibilities.
Policy P6-1.2	Reduce Noise Impacts from Transportation Noise Sources - Reduce noise impacts on the community from transportation related systems by reducing noise at the source. This is the most efficient and effective means of controlling noise; however, the City has little direct control over source noise levels because of State and Federal Preemption regulation. Therefore, cooperative efforts with the State and Federal agencies are essential.
Policy P6-1.3	Establish Measures to Control Non-transportation Noise Impacts - The City shall consider measures to control non-transportation (stationary) noise impacts upon the community.
Policy P6-1.4	Enforcement of City, State and Federal Regulations - The City shall encourage the effective enforcement of City, State and Federal noise level regulations.

Chino Airport Comprehensive Land Use Plan

The Airport Comprehensive Land Use Plan designates various noise impact zones surrounding the Chino Airport. The State of California has adopted a standard (PUC Section 21669) for the acceptable level of aircraft noise in residential areas near airports. This standard is CNEL 65. For the Chino Airport, there is a potential noise impact anywhere aircrafts fly below 500 feet, including agricultural application aircraft. Land use restrictions within the CNEL 60 zone may include prohibiting residential development or limiting development to low-density uses.

Chino Municipal Code

The City of Chino Municipal Code Section, 9.40, Noise Ordinance provides for allowable acoustic levels for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods for residential properties. Table 4.11-3 shows these standards.

Table 4.11-3: City of Chino Noise Standards

Time	L ₅₀ (dBA)	L ₂₅ (dBA)	L ₈ (dBA)	L ₂ (dBA)	L _{MAX} (dBA)
7:00 a.m. to 10:00 p.m.	55	60	65	70	75
10:00 p.m. to 7:00 a.m.	50	55	60	65	70

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

Interpretation:

Zone A: Clearly Compatible

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

Zone B: Normally Compatible

New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally incompatible

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

Zone D: Clearly incompatible

New construction or development should generally not be undertaken.

Source: City of Chino General Plan Noise Element (Exhibit VI-4), 1995.



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Exhibit 4.11-2 City of Chino Land Use Noise Compatibility Matrix

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The L₅₀, L₂₅, L₈, and L₂ noise levels correspond to levels exceeded 50, 25, 8, and 2 percent of the time, respectively, during any measurement hour. These correspond to noise levels lasting for a cumulative time of 30 minutes, 15 minutes, 5 minutes, and 1 minute in each hour, respectively. The L_{MAX} is the maximum noise level occurring during the same measurement hour. The noise ordinance is designed to allow higher noise levels for events lasting a shorter time. For example, a continuous noise source would be regulated by the L₅₀ standard, whereas a noise source that lasts less than 1 minute over the course of 1 hour would be regulated under the L₂ standard.

Additionally, the noise ordinance also states that if the ambient noise level exceeds any of the noise limit categories above, the allowable level should be increased to the value of the ambient level in the appropriate category. If the measurement location is on a boundary between two different noise zones, the lower noise level standard of the adjacent zones shall apply.

If an intruding noise source is continuous and cannot be reasonably discontinued or stopped for a time period whereby the ambient noise level can be determined, the measured noise level obtained while the source is in operation shall be compared directly to the allowable noise level standards as specified respective to the designated land use measurement location and for the time of day when the noise level is measured.

The noise ordinance also provides that construction activity exemptions from noise standards would be granted if the construction activities are conducted in accordance with the Building and Construction Ordinance Section 15.44.030, which limits construction to between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday, and prohibits construction on Sundays and Federal holidays. However, the noise ordinance also states that the noise standard of 65 dBA, plus the limits specified in Table 4.11-3 above, as measured on residential property, and any vibration created, shall not endanger the public health, welfare, and safety.

The Preserve Specific Plan and EIR

The noise section of The Preserve Final EIR describes the existing noise sources and baseline conditions of noise, and the City of Chino's noise ordinance. It also assesses potential Project impacts on noise in and surrounding the Project area up to buildout of the proposed Project. Project impacts to noise levels were found to be less than significant with implementation of the identified mitigation measures, at both the Project and cumulative levels.

4.11.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether noise impacts are significant environmental effects, the following questions are analyzed and evaluated: Would the project result in:

- a.) 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?

- b.) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- c.) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d.) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e.) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f.) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Criteria for Substantial Noise Increase

The CEQA Guidelines and the City of Chino General Plan provide no definition of what constitutes a substantial noise increase; however, the California Department of Transportation provides guidance that can be used to define substantial changes in noise levels that may be caused by a project. The thresholds below generally apply to transportation noise that is usually expressed in terms of average noise exposure during a 24-hour period, such as the Day/Night Average Level (L_{dn}) or CNEL. Project-generated increases in noise levels that exceed those outlined in the thresholds below and that affect existing noise sensitive land uses (receptors) are considered substantial and, therefore, would constitute a significant noise impact. The Project will create a significant noise-related impact if it would:

- Increase noise levels by 5 dB or more where the existing noise level is less than 65 dB
- Increase noise levels by 3 dB or more where the existing noise level is 65 to 70 dB

Based on the City of Chino's maximum residential exterior noise threshold of 70 dBA, a noise level increase of 3 dB or more would be considered significant in areas where ambient conditions are greater than 70 dBA.

Groundborne Vibration

Groundborne vibration consists of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibration typically cause a nuisance only to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically an annoyance only indoors, where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and typically only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Peak particle velocity (PPV) relates to the maximum instantaneous peak of the vibration signal and is often used in measuring the magnitude of vibration. Scientific studies have shown that human responses to vibration vary by the source of vibration: continuous or transient. Continuous sources of vibration include construction, while transient sources include truck movements. Generally, the thresholds of perception and annoyance are higher for transient sources than continuous sources.

Based on the structural damage thresholds established in the Caltrans Transportation- and Construction-Induced Vibration Guidance Manual, the proposed Project would create a significant vibration impact if it generated groundborne vibration levels on sensitive receptors in excess of 0.5 PPV during construction and 1.0 PPV during operations.

4.11.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate.

The Preserve Specific Plan recommended the following uses for the Project site: Estate Residential (ER), Open Space Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N) and Open Space Natural (OS-N). Amending the Specific Plan as proposed by the Edgewater Project would contribute to noise generation from short-term construction activity and long-term operation from traffic on roadways associated with increased development on the Project site.

Noise Levels in Excess of Standards

Impact 4.11-1:	The Project would not expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. [CEQA Noise Threshold 11(a)]

Impact Analysis

Noise levels in the Project area would be influenced by construction activity in the short term, and by traffic, agricultural, recreational and airport noise in the long term.

Short-term Noise

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the proposed Project would be a function of the noise generated by construction equipment, equipment location, the sensitivity of nearby land uses, and the timing and duration of the construction activities. As discussed below under Impact 4.11-4, Section 9.40.060D of the Chino Municipal Code exempts construction activity from noise standards granted they are conducted between 7:00 a.m. and 8:00 p.m. Monday through Saturday. However, it also states that the noise standard of 65 dBA plus the limits specified in Table 4.11-3, as measured on residential property, and any vibration created shall not endanger the public health, welfare, and safety. Therefore, although there are no construction standards for noise generation, all construction

activity would be conducted in accordance with the City of Chino Municipal Code, and therefore construction noise would not expose persons to or generate noise levels in excess of standards.

As discussed in Section 3, Project Description, the opening year for occupation of the first phases of the Project is anticipated to be 2010. Development phasing is anticipated to occur in three phases. Although the actual rate of development will be dependent on market conditions, buildout of the community is anticipated to occur over a 10-year period as follows: Phase 1 (2010 to 2011), Phase 2 (2012 to 2014), and Phase 3 (2015 to 2019). Therefore, residents in the earlier phases would be impacted by construction noise from activity associated with subsequent phases.

Long-term Noise

Traffic, agricultural, recreational, and airport noise all represent long-term noise sources. Residential exterior noise levels are normally compatible up to 70 dBA CNEL per the Chino General Plan Noise Element (see Exhibit 4.11-2). Based on the nature of the nearby roadways, the relatively low noise levels at the nearby dairies and recreational facilities, and Project site location outside the noise contours for the Chino Airport, these noise sources would not expose persons to or generate noise levels in excess of standards. The recycling/fertilizer plant to the east of the Project site would be located approximately 2,000 feet from the nearest future resident of the Project. Nitrogen fertilizer production does not typically result in excessive noise levels. Based on the distance to the future receptors and the nature of fertilizer production, the plant would not expose persons to or generate noise levels in excess of standards.

The land use compatibility guidelines in Exhibit 4.11-2 establish the acceptable range of ambient noise levels for residential developments within the City of Chino. Exterior noise levels are normally compatible at 70 dB CNEL for residential. The highest future noise level predicted in association with the Project is at the intersection of Euclid Avenue at Edison Avenue (approximately 5 miles north of the Project site), with a noise level of 64.0 dB in 2030 for AM peak hour conditions with the Project (see further discussion below under Impact 4.11-3). Therefore, all intersections would operate at noise levels below the normally compatible standard of 70 dB for residences. All intersections predicted to result in future noise levels between 60.0 dB and 64.0 dB are not within the Project vicinity.

Euclid Avenue at Pine Avenue, located approximately 1.5 miles northwest of the Project site, is the nearest intersection predicted to be above 60 dB, and is predicted to be at a maximum of 64 dB in 2030 under PM peak hour conditions. Considering attenuation from distance from the future single-family homes (approximately 4.5 dB for every doubling of distance for traffic noise), noise levels would not exceed 60 dB from this intersection. Similarly, future residences of the Project's multi-family homes would not experience noise levels greater than 70 dB as the intersection would not exceed 70 dB. Therefore, predicted noise levels would not exceed City of Chino standards and impacts would be less than significant for all future residences.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Excessive Groundborne Vibration

Impact 4.11-2:	The Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. [CEQA Noise Threshold 11(b)]

Impact Analysis

Groundborne vibration in the Project area would be influenced by construction activity in the short term, and by truck traffic in the long term.

Construction Vibration

Construction activities can produce vibration that may be felt by adjacent uses. The construction of the proposed Project is not expected to require the use of equipment such as jackhammers and pile drivers, which are known to generate substantial construction vibration levels. The primary sources of vibration during construction would be from bulldozers, backhoes, crawler tractors, and scrapers. A vibratory roller would produce the greatest amount of vibration on the Project site, with a 0.210 PPV at 25 feet. As discussed previously under Sensitive Receptors, the nearest existing sensitive receptors to the Project site are rural residences associated with existing dairy facilities located approximately 75 feet to the northeast and to the west of the Project site, and the rural residences located approximately 100 feet to the west of the Project site. New sensitive receptors would be those residents that move into the residential units of the proposed Project. As discussed in Section 3, Project Description, the opening year for Phase 1 of the Project is expected to be 2010 and construction would occur through 2019. Therefore, residents in earlier phases could be impacted by construction vibration from activity associated with subsequent phases. Based on the distance between phase locations; however, it is not anticipated that construction activities would result in vibration levels exceeding the structural damage threshold of 0.3 PPV.

Construction activities would include both single vibratory events as well as periods in which multiple or continuous vibration would occur. Therefore, construction impacts were assessed using the continuous/frequent intermittent structural damage vibration threshold of 0.3 PPV. The nearest construction activities would be approximately 75 feet from the rural residences to the west of the Project site, 100 feet from the other rural residences to the west of the Project site, and 125 feet from the rural residences to the northeast of the Project (based on open space proposed along the northern Project boundary). Table 4.11-4 below provides the estimated construction vibration levels at the residences.

Table 4.11-4: Estimated Construction Vibration Levels

Nearest Sensitive Receptor	Predicted Maximum Peak Particle Velocity (inches/second)	Structural Damage Threshold
Rural dairy residences along north side of Chino Corona Road east of Comet Avenue	0.042	0.3
Rural dairy residences along south side of Chino Corona Road between Comet Avenue and Cucamonga Avenue	0.069	0.3
Rural dairy residences along Cucamonga Avenue south of Chino Corona Road	0.052	0.3
Residents at the California Institution for Women north of Chino Corona Road	0.0052	0.3
Source: Michael Brandman Associates, 2007.		

The maximum vibration the nearest residential receptor would be expected to experience is 0.042 PPV, which is depicted above in Table 4.11-4, and is below the 0.3 PPV significance level for potential structural damage. Therefore, construction-related vibration impacts from the proposed Project on existing sensitive receptors would be less than significant.

Operational Vibration

The proposed Project includes only limited commercial/retail uses in association with the museum. Tractor-trailer traffic onto and within the Project site for deliveries would likely be limited and would not be expected to increase vibration impacts from operation of the Project. Therefore, the operational vibration from the proposed Project would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Permanent Increase in Ambient Noise Levels

Impact 4.11-3: The Project would not create a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.
[CEQA Noise Threshold 11(c)]

Impact Analysis

Permanent noise levels in the Project area would be influenced by airport and traffic noise at the Project site, along with noise from agricultural and animal activity at the surrounding dairies and the

fertilizer plant, and recreational activity at various other nearby facilities. The Project would not result in an increase in noise levels from these sources with the exception of traffic.

Airport Noise

As previously indicated, the Chino Airport is located approximately 1.5 miles north of the Project site. Based on the distance from the airport, aircraft noises constitute occasional short-term noise intrusions at the Project site, but the expected contribution of aircraft flight noise averaged over a 24-hour CNEL exposure period would be insignificant at the Project site. The Adopted Airport Noise Contours for the Chino Airport, shown in Exhibit 4.11-1, are the most recent contours from the existing Airport Comprehensive Land Use Plan for the Chino Airport (1991). The location of Airport noise contours were maintained in the 2006 Chino Airport Master Plan (discussed previously under Airport Noise Levels). Exhibit 4.11-1 shows that the Project would be outside of the 65 dBA noise contours. Although aircraft overflights would be audible by future Project residents, these single-noise events would not exceed 65 dBA and the noise levels would not significantly impact the residents of the proposed Project. Because residents would not be exposed to excessive noise levels associated with overflights, impacts would be less than significant.

Other Noise

Other existing noise sources in the Project area include agricultural and animal activity at the surrounding dairies and recreational activity at various other nearby facilities. Some of the dairy and agricultural facilities would be removed in the future due to their location within the Prado Dam Inundation Zone. The relocation of these uses may further reduce noise from these sources. Noise from agriculture, dairy, and recreation facilities would not expose the future residents of the Project to substantial noise levels, and therefore impacts would be less than significant. The recycling/fertilizer plant to the east of the Project site would be located approximately 2,000 feet from the nearest future resident of the Project. Nitrogen fertilizer production does not typically result in excessive noise levels. Based on the distance to the future receptors and the nature of fertilizer production, the plant would not expose the future residents of the Project to substantial noise levels, and therefore impacts would be less than significant. Operational noise from the Project would be typical of residential areas, including children playing, pets, auto repair, and HVAC units. None of these sources would expose future residents of the Project to substantial noise levels, and therefore impacts would be less than significant.

Traffic Noise

Long-term noise impacts would result from vehicle traffic associated with the proposed Project. City of Chino noise standards are established in the City of Chino General Plan Noise Element (1995), Table VI-4, similar to the State of California Office of Noise Control model element guidelines, which most standards are now based on. Exhibit 4.11-2 shows the City of Chino's Land Use Compatibility Matrix.

Section 9.40 of the Chino Municipal Code serves as the City's noise ordinance. Section 9.40.040, Exterior Noise Standards, contains the allowable levels for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods for residential properties based on the length the noise level is sustained (see Table 4.11-3 above).

As shown in Exhibit 4.11-2, the land use compatibility matrix provides the acceptable range of ambient noise levels for residential developments within the City of Chino. Exterior noise levels are normally compatible at 70 dB CNEL for residential. Using traffic data contained in the Urban Crossroads 2007 Traffic Impact Analysis, Table 4.11-5 and provide the future noise levels for years 2019 and 2030, both with and without Project.

Future year analysis for the Project includes future conditions at the time of anticipated full Project occupancy (typically referred to as Interim Year conditions) and at General Plan Buildout (Post-2030) conditions. Both of these future conditions were analyzed without and with the proposed Project. The residential development is expected to be fully occupied by 2019. Therefore, Interim Year conditions were analyzed for 2019 in the Traffic Impact Analysis.

The proposed Project, along with four alternatives, was analyzed in the November 2007 Traffic Impact Analysis, and it was determined that the proposed Project would result in the greatest trip generation when compared with the Project alternatives. Therefore, the proposed Project has been used for the noise modeling as it represents a worst-case scenario with regard to the greatest potential for increased noise levels. Thus, Table 4.11-5 and also identify the worst-case scenario for noise contributions from the Project based on the proposed Project developing the most land for the residential and community uses resulting in more traffic than the Project alternatives. As shown in Tables Table 4.11-5 and, future noise levels with the Project for both 2019 and 2030 would not experience a substantial increase in noise levels of 3 dBA or greater when compared in the same year to conditions without the Project.

The intersections with the greatest Project contribution to noise over existing noise levels include the following:

- Sultana Road at Pine Avenue (future intersection) at 1.4 dB in 2019 for AM peak hour conditions, and 1.3 dB in 2019 for PM peak hour conditions;
- Cucamonga Avenue at Chino Corona Road at 2.3 dB in 2019 for AM peak hour conditions, 1.6 dB in 2030 for AM peak hour conditions, 2.1 dB in 2019 for PM peak hour conditions and 1.8 dB in 2030 for PM peak hour conditions;
- Chino Corona Road/Mill Creek Road at Pine Avenue at 1.0 dB in 2019 for PM peak hour conditions;

- Main Street/North East Project Site Access Road at Chino Corona Road (future intersection) at 1.4 dB in 2019 for AM peak hour conditions, 1.5 dB in 2030 for AM peak hour conditions, 1.3 dB in 2019 for PM peak hour conditions and 1.5 dB in 2030 for PM peak hour conditions; and
- Mill Creek Road at Bickmore Avenue at 1.4 dB in 2019 for PM peak hour conditions.

Based on Table 4.11-5 and Table 4.11-6, without incorporating Project-generated traffic, Euclid Avenue at Edison Avenue would result in noise levels of 63.9 dB. Including proposed Project traffic would result in the intersection experiencing a noise level of 64.0 dB in 2030 under AM peak hour conditions, indicating the Project would not contribute a substantial noise increase. The highest future noise level predicted in Table 4.11-5 and Table 4.11-6 is at the intersection of Euclid Avenue at Edison Avenue, with a noise level of 64.0 dB in 2030 for AM peak hour conditions with the Project. Therefore, all intersections analyzed in the Traffic Impact Analysis would operate at noise levels below the normally compatible standard of 70 dB for residences. All intersections predicted to result in future noise levels between 60.0 dB and 64.0 dB are not within the Project vicinity.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Temporary or Periodic Increase in Ambient Noise Levels

Impact 4.11-4:	The Project would create a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. [CEQA Noise Threshold 11(d)]

Impact Analysis

A temporary or periodic increase in noise levels in the Project area would be influenced by construction of the proposed Project.

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the proposed Project would be a function of the noise generated by construction equipment, equipment location, the sensitivity of nearby land uses, and the timing and duration of the construction activities.

Table 4.11-5: Offsite Traffic Noise Levels - Interim and Future AM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?	
				Interim Year 2019			Future Year 2030			
	Distance to Centerline (ft)	Existing Noise	W/O Project	With Project	Change	W/O Project	With Project	Change		
San Bernardino County										
Central Avenue at El Prado Road	75	59.2	60.3	60.3	0	61.7	61.7	0	No/No	
Central Avenue at SR-71 Northbound Ramps	75	60.7	61.6	61.6	0	62.2	62.2	0	No/No	
Central Avenue at SR-71 Southbound Ramps	75	60.6	61.5	61.5	0	62.4	62.5	0.1	No/No	
SR-71 Southbound Ramps at Pine Avenue	75	53.9	56.9	57.0	0.1	58.8	59.0	0.2	No/No	
SR-71 Northbound Ramps at Pine Avenue	75	51.8	58.6	58.9	0.3	60.2	60.5	0.3	No/No	
El Prado Road at Kimball Avenue	75	56.0	57.3	57.4	0.1	58.5	58.5	0	No/No	
El Prado Road at Pine Avenue (future)	65	NA	56.1	56.4	0.4	58.0	58.2	0.2	No/No	
Mountain Avenue at Kimball Avenue	65	52.8	54.5	54.6	0.1	58.5	58.5	0	No/No	
Mountain Avenue at Bickmore Avenue	65	41.3	48.9	48.9	0	49.8	49.8	0	No/No	
Euclid Avenue at Schaefer Avenue	75	60.0	61.8	61.9	0.1	62.4	62.4	0	No/No	
Euclid Avenue at Edison Avenue	75	60.8	62.9	63.0	0.1	63.9	64.0	0.1	No/No	
Euclid Avenue at Eucalyptus Avenue	75	59.5	62.2	62.3	0.1	62.3	62.3	0	No/No	
Euclid Avenue at Merrill Avenue	75	60.1	62.3	62.4	0.1	62.3	62.3	0	No/No	
Euclid Avenue at Kimball Avenue	75	60.0	62.2	62.4	0.23	62.6	62.7	0.1	No/No	
Euclid Avenue at Bickmore Avenue	75	58.6	61.0	61.1	0.1	57.0	57.0	0	No/No	
Euclid Avenue at Pine Avenue	75	59.9	62.2	62.5	0.3	63.1	63.3	0.2	No/No	
Euclid Avenue at SR-71 Northbound Ramps	75	59.8	62.1	62.2	0.1	62.1	62.2	0.1	No/No	
Euclid Avenue (SR-83)/Butterfield Ranch Road at SR-71 Southbound Off-Ramp/Shady View Drive	75	61.4	63.2	63.2	0	63.2	63.2	0	No/No	

Table 4.11-5 (Cont.): Offsite Traffic Noise Levels - Interim and Future AM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?
	Interim Year 2019			Future Year 2030					
Distance to Centerline (ft)	Existing Noise	W/O Project	With Project	Change	W/O Project	With Project	Change		
Sultana Avenue at Pine Avenue (future)	65	NA	53.3	54.7	1.4	58.6	59.0	0.2	No/No
Mill Creek Road at Kimball Avenue	65	51.6	52.7	53.5	0.9	55.4	55.6	0.2	No/No
Mill Creek Road at Bickmore Avenue	65	51.5	52.1	53.0	0.9	53.3	53.7	0.4	No/No
Chino Corona Road/Mill Creek Road at Pine Avenue	65	55.7	57.3	58.2	0.9	59.8	60.1	0.3	No/No
Cucamonga Avenue at Chino Corona Road	65	52.1	52.6	54.9	2.3	53.6	55.2	1.6	No/No
West Preserve Loop at Bickmore Avenue	65	51.3	52.2	52.2	0	53.5	53.6	0.1	No/No
West Preserve Loop at Pine Avenue	65	55.2	57.0	57.0	0	59.6	59.6	0	No/No
Main Street at Kimball Avenue	65	48.6	50.3	50.3	0	53.8	53.9	0.1	No/No
Main Street at Preserve Loop	65	46.3	48.8	48.8	0	51.9	52.1	0.2	No/No
Main Street at Bickmore Avenue (future)	65	NA	40.9	41.3	0.4	50.8	51.1	0.3	No/No
Main Street at Pine Avenue (future)	65	NA	56.6	56.6	0	59.2	59.3	0.1	No/No
Main Street/North East Project Site Access Road at Chino Corona Road (future)	65	NA	52.1	53.5	1.4	53.5	55.0	1.5	No/No
East Preserve Loop at Bickmore Avenue (future)	65	NA	44.0	44.0	0	49.4	49.4	0	No/No
East Preserve Loop at Pine Avenue (future)	65	NA	56.6	56.6	0	56.7	56.7	0	No/No
San Bernardino/Riverside Counties									
Hellman Avenue at Kimball Avenue/Limonite Avenue (future)	65	NA	52.0	52.0	0	57.9	57.9	0	No/No
Hellman Avenue at Pine Avenue/Schleisman Road	65	55.6	57.6	57.7	0.1	60.8	60.9	0.1	No/No

Table 4.11-5 (Cont.): Offsite Traffic Noise Levels - Interim and Future AM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?	
				Interim Year 2019			Future Year 2030			
	Distance to Centerline (ft)	Existing Noise	W/O Project	With Project	Change	W/O Project	With Project	Change		
Hellman Avenue at Chino Corona Road/Chandler Street	65	53.7	55.3	55.9	0.6	58.0	58.4	0.4	No/No	
Hellman Avenue at River Road	65	51.9	54.0	54.3	0.3	57.2	57.4	0.2	No/No	
Riverside County										
Archibald Street at Schleisman Road	75	58.6	59.5	59.7	0.2	61.8	61.9	0.1	No/No	
Archibald Street at Chandler Street	75	58.7	58.9	59.0	0.1	59.3	59.5	0.2	No/No	
Archibald Street at River Road	75	57.9	58.6	58.8	0.2	60.4	60.5	0.1	No/No	
River Road at Bluff Street	75	58.1	58.8	58.9	0.1	60.4	60.5	0.1	No/No	
River Road at Country Club Avenue/Second Street	75	59.1	59.5	59.6	0.1	60.7	60.8	0.1	No/No	
Lincoln Avenue at Pomona Road/SR-91 Westbound Ramps	75	59.9	60.3	60.4	0.1	61.7	61.7	0	No/No	
Lincoln Avenue at SR-91 Eastbound Ramps	75	60.1	60.5	60.5	0	61.7	61.9	0.2	No/No	
Harrison Avenue at Schleisman Road	65	54.3	56.0	56.2	0.2	59.4	59.4	0	No/No	
Sumner Avenue at Schleisman Road	65	53.7	55.7	55.9	0.2	59.3	59.4	0.1	No/No	
Cleveland Avenue at Schleisman Road	65	53.5	55.4	55.6	0.2	59.0	59.0	0	No/No	
Hamner Avenue at Schleisman Road	65	56.5	57.4	57.5	0.1	59.5	59.6	0.1	No/No	
I-15 Southbound Ramps at Limonite Avenue	75	60.9	61.2	61.2	0	62.0	62.1	0.1	No/No	
I-15 Southbound Ramps at Schleisman Road (future)	75	NA	53.3	53.6	0.3	59.0	59.1	0.1	No/No	
I-15 Northbound Ramps at Limonite Avenue	75	60.4	60.6	60.6	0	61.4	61.4	0	No/No	

Table 4.11-5 (Cont.): Offsite Traffic Noise Levels - Interim and Future AM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?	
	Distance to Centerline (ft)		Existing Noise	Interim Year 2019			Future Year 2030			
				W/O Project	With Project	Change	W/O Project	With Project		Change
1-15 Northbound Ramps at Schleisman Road (future)	75	NA	53.0	53.2	0.2	59.1	59.2	0.1	No/No	
NA = Existing traffic data not available for future intersections Source: Michael Brandman Associates, 2007.										

Table 4.11-6: Offsite Traffic Noise Levels - Interim and Future PM Peak Hour Conditions

Roadway Segment	CNEL, dB							Potentially Significant Impact?	
				Interim Year 2019		Future Year 2030			
	Distance to Centerline (ft)	Existing Noise	W/O Project	With Project	Change	W/O Project	With Project		Change
San Bernardino County									
Central Avenue at El Prado Road	75	59.2	60.5	60.5	0	61.9	61.9	0	No/No
Central Avenue at SR-71 Northbound Ramps	75	60.6	61.6	61.6	0	62.3	62.3	0	No/No
Central Avenue at SR-71 Southbound Ramps	75	61.1	61.9	61.9	0	62.9	62.9	0	No/No
SR-71 Southbound Ramps at Pine Avenue	75	53.4	58.3	58.5	0.2	59.4	59.6	0.2	No/No
SR-71 Northbound Ramps at Pine Avenue	75	49.8	58.8	59.1	0.3	60.0	60.3	0.3	No/No
El Prado Road at Kimball Avenue	75	55.1	56.6	56.7	0.1	57.8	57.9	0.1	No/No
El Prado Road at Pine Avenue (future)	65	NA	56.8	57.1	0.3	57.8	58.1	0.3	No/No
Mountain Avenue at Kimball Avenue	65	52.2	54.2	54.3	0.1	55.8	55.8	0	No/No
Mountain Avenue at Bickmore Avenue	65	41.3	49.9	49.9	0	50.8	50.8	0	No/No

Table 4.11-6 (Cont.): Offsite Traffic Noise Levels - Interim and Future PM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?
	Distance to Centerline (ft)	Existing Noise	Interim Year 2019			Future Year 2030			
			W/O Project	With Project	Change	W/O Project	With Project	Change	
Euclid Avenue at Schaefer Avenue	75	59.9	61.8	61.9	0.1	62.7	62.7	0	No/No
Euclid Avenue at Edison Avenue	75	60.7	62.8	62.9	0.1	64.3	64.4	0.1	No/No
Euclid Avenue at Eucalyptus Avenue	75	58.9	61.6	61.8	0.2	63.1	63.1	0	No/No
Euclid Avenue at Merrill Avenue	75	59.4	61.7	61.9	0.2	62.8	62.9	0.1	No/No
Euclid Avenue at Kimball Avenue	75	58.9	61.4	61.6	0.2	62.8	62.9	0.1	No/No
Euclid Avenue at Bickmore Avenue	75	57.9	60.8	60.8	0	62.1	62.2	0.1	No/No
Euclid Avenue at Pine Avenue	75	59.6	62.5	62.8	0.3	63.8	64.0	0.2	No/No
Euclid Avenue at SR-71 Northbound Ramps	75	59.5	62.1	62.3	0.1	63.0	63.0	0	No/No
Euclid Avenue (SR-83)/Butterfield Ranch Road at SR-71 Southbound Off-Ramp/Shady View Drive	75	58.2	60.2	60.2	0	60.4	60.5	0.1	No/No
Sultana Avenue at Pine Avenue (future)	65	NA	54.8	56.1	1.3	60.1	60.5	0.4	No/N
Mill Creek Road at Kimball Avenue	65	48.5	50.1	51.7	0.6	53.4	53.8	0.4	No/No
Mill Creek Road at Bickmore Avenue	65	47.9	50.9	52.3	1.4	54.3	54.7	0.4	No/No
Chino Corona Road/Mill Creek Road at Pine Avenue	65	56.1	57.9	58.9	0.1	60.6	61.0	0.4	No/No
Cucamonga Avenue at Chino Corona Road	65	52.5	52.8	54.9	2.1	53.6	55.4	1.8	No/No
West Preserve Loop at Bickmore Avenue	65	46.7	50.3	50.3	0	54.1	54.2	0.1	No/No
West Preserve Loop at Pine Avenue	65	54.6	56.9	57.0	0.1	59.8	59.9	0.1	No/No
Main Street at Kimball Avenue	65	46.1	49.1	49.1	0	53.7	53.9	0.2	No/No
Main Street at Preserve Loop	65	44.8	56.6	56.6	0	59.7	59.8	0.1	No/No
Main Street at Bickmore Avenue (future)	65	NA	52.9	54.2	1.3	54.7	54.5	0.1	No/No

Table 4.11-6 (Cont.): Offsite Traffic Noise Levels - Interim and Future PM Peak Hour Conditions

Roadway Segment	CNEL, dB							Potentially Significant Impact?	
	Interim Year 2019			Future Year 2030					
Distance to Centerline (ft)	Existing Noise	W/O Project	With Project	Change	W/O Project	With Project	Change		
Main Street at Pine Avenue (future)	65	NA	47.9	47.9	0	53.3	53.3	0	No/No
Main Street/North East Project Site Access Road at Chino Corona Road (future)	65	NA	56.7	56.7	0	59.8	59.8	0	No/No
East Preserve Loop at Bickmore Avenue (future)	65	NA	54.4	54.4	0	63.0	63.0	0	No/No
East Preserve Loop at Pine Avenue (future)	65	NA	57.8	57.8	0	61.8	61.9	0.1	No/No
San Bernardino/Riverside Counties									
Hellman Avenue at Kimball Avenue/Limonite Avenue (future)	65	NA	54.4	54.4	0	60.3	60.3	0	No/No
Hellman Avenue at Pine Avenue/Schleisman Road	65	54.4	57.8	57.8	0	61.8	61.9	0.1	No/No
Hellman Avenue at Chino Corona Road/Chandler Street	65	53.3	55.8	56.5	0.7	59.3	59.6	0.3	No/No
Riverside County									
Hellman Avenue at River Road	65	51.4	54.3	54.7	0.4	58.1	58.3	0.2	No/No
Archibald Street at Schleisman Road	75	58.3	59.7	59.9	0.2	62.6	62.6	0	No/No
Archibald Street at Chandler Street	75	57.5	57.9	58.2	0.3	59.0	59.1	0.1	No/No
Archibald Street at River Road	75	58.0	58.9	59.1	0.2	61.1	61.2	0.1	No/No
River Road at Bluff Street	75	58.3	59.1	59.3	0.2	61.2	61.3	0.1	No/No
River Road at Country Club Avenue/Second Street	75	59.4	60.0	60.1	0.1	61.6	61.7	0.1	No/No
Lincoln Avenue at Pomona Road/SR-91 Westbound Ramps	75	60.1	60.3	60.4	0.1	61.1	61.1	0	No/No

Table 4.11-6 (Cont.): Offsite Traffic Noise Levels - Interim and Future PM Peak Hour Conditions

Roadway Segment	CNEL, dB								Potentially Significant Impact?
	Distance to Centerline (ft)	Existing Noise	Interim Year 2019			Future Year 2030			
			W/O Project	With Project	Change	W/O Project	With Project	Change	
Lincoln Avenue at SR-91 Eastbound Ramps	75	60.3	60.5	60.5	0	61.2	61.2	0	No/No
Harrison Avenue at Schleisman Road	65	53.7	56.3	56.5	0.2	60.4	60.5	0.1	No/No
Sumner Avenue at Schleisman Road	65	53.4	56.2	56.4	0.2	60.5	60.6	0.1	No/No
Cleveland Avenue at Schleisman Road	65	50.8	54.9	55.2	0.3	59.9	60.0	0.1	No/No
Hamner Avenue at Schleisman Road	65	57.1	58.6	58.7	0.1	61.6	61.6	0	
I-15 Southbound Ramps at Limonite Avenue	75	61.3	61.6	61.6	0	62.5	62.5	0	No/No
I-15 Southbound Ramps at Schleisman Road (future)	75	NA	54.5	54.8	0.3	60.5	60.5	0	No/No
I-15 Northbound Ramps at Limonite Avenue	75	61.1	61.4	61.4	0	62.4	62.4	0	No/No
I-15 Northbound Ramps at Schleisman Road (future)	75	NA	53.8	54.0	0.2	60.1	60.1	0.1	No/No
NA = Existing traffic data not available for future intersections Source: Michael Brandman Associates, 2007.									

Short-term noise impacts would occur during construction activities from the noise impacts created from the transport of workers and movement of construction materials to and from the Project site, and from the noise generated onsite during demolition, ground clearing, excavation, grading, and construction activities. Table 4.11-7 lists typical construction equipment noise levels for equipment that would be used during construction of the proposed Project. Construction activities are carried out in discrete steps, each of which has a unique mix of equipment and, consequently, unique noise characteristics. These various sequential phases of Project construction would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase.

Table 4.11-7: Construction Equipment Noise Levels

Construction Activity / Equipment	Maximum Noise Levels Measured (dBA at 50 feet)
Grading	89
Backhoe	90
Pneumatic tools	88
Air compressor	86
Crane	83

Table 4.11-7 (Cont.): Construction Equipment Noise Levels

Construction Activity / Equipment	Maximum Noise Levels Measured (dBA at 50 feet)
Plate compactor	89
Concrete vibrator	85
Trucks	87
Source: Federal Transit Administration, 1995	

Existing Receptors

Based on their proximity to the Project site, the residential land uses to the west and northeast of the Project site are the sensitive receptors of most concern as they relate to Project construction noise. Table 4.11-8 provides the estimated maximum noise levels each existing sensitive receptor would be expected to experience during construction. Note that construction noise often varies significantly on a day-to-day basis, and the noise levels shown in the table below represent a worst-case scenario.

Table 4.11-8: Estimated Construction Noise Levels at Sensitive Receptors

Receptor	Distance and Direction From Project Site (feet)	Maximum Noise Levels (L _{max} , dB)
Rural dairy residences along north side of Chino Corona Road east of Comet Avenue	75 feet northeast of Project site	87
Rural dairy residences along south side of Chino Corona Road between Comet Avenue and Cucamonga Avenue	75 feet west of Project site	87
Rural dairy residences along Cucamonga Avenue south of Chino Corona Road	100 feet west of Project site	84
Residents at the California Institution for Women north of Chino Corona Road	1,000 feet northwest of Project	64.5
Noise levels based on construction noise at 90 dB measured at 50 feet from Project site; assumes a 6-dB reduction for each doubling of distance. Noise levels in this table depict peak levels and do not predict the 24-hour weighted average (CNEL). Source: Michael Brandman Associates, 2007.		

Maximum construction noise levels are estimated to be 87 dB at the residences northeast and west of the Project site along the north and south sides of Chino Corona Road, 84 dB at the residences west of the Project site along Cucamonga Avenue, and 64.5 at the women's state prison facility.

Construction noise would last the duration of construction, although it would be the most noticeable during the initial months of intensive grading and building construction. This estimated noise level represents a potentially significant impact.

In order to minimize disruption to existing residents, all construction activity would be performed in accordance with Chino Municipal Code Noise requirements. Additionally, mitigation, as provided below, would require incorporation of noise attenuation measures into the proposed Project. With the implementation of these noise attenuation measures, construction noise would be reduced to a less than significant impact for existing receptors.

Future Receptors

Because the Project would be built in phases, the earliest residents could be exposed to construction noise levels while subsequent phases are being completed. The opening year for Phase 1 of the Project is expected to be 2010, and subsequent development is expected to occur with Phase 2 in 2012 to 2014, and Phase 3 in 2015 to 2019.

Level of Significance Before Mitigation

Potentially significant. [CEQA Noise Threshold 11(d)]

Mitigation Measures

N-1 At the time the grading permit application is submitted, the Project applicant shall submit a construction noise mitigation plan to the City of Chino for review and approval. The plan shall depict the location of construction equipment and describe

how noise would be mitigated through methods such as, but not limited to, locating stationary noise-generating equipment (such as pumps and generators) as far as possible from nearby noise-sensitive receptors. Where practicable, noise-generating equipment will be shielded from nearby noise-sensitive receptors by noise-attenuating buffers such as structures or haul trucks/trailers. Onsite noise sources such as heavy equipment located less than 200 feet from noise-sensitive receptors will be equipped with noise-reducing engine housings. Portable acoustic barriers able to attenuate at least 6 dB will be placed around noise-generating equipment located within 200 feet of both existing residences and occupied residences of completed Project phases. Water tanks and equipment storage, staging, and warm-up areas shall be located as far from noise-sensitive receptors as possible. All noise attenuation measures identified in the plan shall be incorporated into the Project.

N-2 Construction activities shall adhere to the following noise requirements:

- All construction equipment shall utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- Hours of construction shall comply with those established in Section 15.44.030 of the Chino Municipal Code. Those hours are weekdays and Saturdays from 8:00 a.m. through 7:00 p.m. Construction is prohibited on Sundays and Federal holidays.

Level of Significance After Mitigation

Less than significant.

Airport Noise Levels

Impact 4.11-5:	The Project is located within an airport land use plan and within two miles of a public airport but would not expose people residing or working in the Project area to excessive noise levels. [CEQA Noise Threshold 11(e)]

Impact Analysis

The Chino Airport is located approximately 1.5 miles north of the Project site. Based on the distance from the airport, aircraft noise constitutes an occasional short-term noise intrusion at the Project site, but the expected contribution of aircraft flight noise averaged over a 24-hour CNEL exposure period would be insignificant at the Project site. The Chino Airport is classified as a Reliever Airport, due to its proximity to Ontario International Airport and John Wayne Airport. This airport is currently the site of several improvement and expansion projects and promises to assume an increasingly important role in meeting the flying needs of the region it serves.

The Adopted Airport Noise Contours for the Chino Airport, shown in Exhibit 4.11-1, are the most recent contours from the existing Airport Comprehensive Land Use Plan for the Chino Airport (1991). The location of Airport noise contours were maintained in the 2006 Chino Airport Master Plan (discussed previously under Airport Noise Levels). Exhibit 4.11-1 shows that the Project would be outside of the 65 dBA noise contours. Although aircraft overflights would be audible by future Project residents, these single-noise events would not exceed 65 dBA and the noise levels would not significantly impact the residents of the proposed Project. Because residents or people working in the Project area would not be exposed to excessive noise levels associated with overflights, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Private Airstrip Noise Levels

Impact 4.11-6:	The Project is not located within the vicinity of a private airstrip, and would not expose people residing or working in the Project area to excessive noise levels. [CEQA Noise Threshold 11(f)]

Impact Analysis

There are no private airstrips in the Project vicinity. The nearest airport is the Chino Airport, located approximately 1.5 miles north of the Project site. Potential impacts from the Chino Airport are discussed under Impact 4.11-5 above. There would be no impact from private airstrips.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Cumulative Impacts

Impact 4.11-7:	The Project would not result in cumulatively considerable impacts to noise during construction or operation of the Project.

Impact Analysis

The analysis area for evaluation of cumulative noise impacts encompasses the ambient noise environment around the Project site within a 2-mile radius. The cumulative noise impact analysis is

guided by evaluating increases in ambient noise levels in the Project vicinity relative to existing conditions. Construction noise would result in temporary increases in ambient noise levels, and mitigation is proposed that would require implementation of noise control measures during construction activities. Because construction would be temporary, ambient noise levels would not experience a permanent increase and, therefore, no cumulatively considerable increase would occur. This would also apply to residents of early phases of the Project, who would be subjected to ongoing construction noise from subsequent Project phases.

The proposed Project would result in construction vibration, but would not exceed significance thresholds at the nearest existing residential receptors, and, therefore, would not be cumulatively considerable. Project residential units would not be exposed to vibration during operation of the Project, with the exception of vibration from construction equipment in subsequent phases of the Project. Vibration from construction of subsequent Project phases would not exceed structural damage thresholds. Therefore, Project residents would not be exposed to significant sources of vibration, and impacts would not be cumulatively considerable.

Vehicular trips generated by the proposed Project would not cause ambient noise levels along any affected roadway segments within one mile of the Project site to exceed acceptable noise standards under Year 2019 or 2030 conditions. Additionally, none of the affected roadways would result in a substantial increase in noise levels as a result of the Project for either Year 2019 or Year 2030 conditions. Therefore, the proposed Project would not have a cumulatively considerable impact related to increased ambient noise levels on nearby roadways. Onsite noise associated with the proposed Project would not result in ambient noise levels increasing to unacceptable levels at any surrounding land uses. Thus, the proposed Project would not have a cumulatively considerable impact related to increased ambient noise levels at surrounding land uses. Onsite noise associated with the proposed Project would not expose Project residents to unacceptable levels. Therefore, the proposed Project, in conjunction with other future development Projects, would not have cumulatively considerable impacts to noise.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.11.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of

The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.11-9 below provides a cross reference summary between the Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.11-9: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Noise

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
N-1. Construction Noise N-2. Construction Noise	N-1. Construction Noise.	Edgewater mitigation reflects similar requirements to Preserve EIR mitigation.
No mitigation measure to address roadway noise required.	N-2. Roadway Noise.	Project will comply.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.12 - Population and Housing

4.12.1 - Introduction

This section examines: 1) the socioeconomic implications of the proposed Project stemming from changes in population and housing supply; 2) employment generation; 3) the relationship of the proposed Project to regional housing and jobs policies of the Southern California Association of Governments (SCAG); and 4) the relationship of the proposed Project to goals and policies of the City of Chino 2000-2005 Housing Element. Descriptions and analysis in this section are based on information obtained from the document listing that follows. Complete references for all listed documents are contained in the Section 11, References of this Draft EIR.

- The Preserve Specific Plan and Final EIR;
- City of Chino General Plan; and
- Draft EIR for the Specific Plan for the Development of State Surplus Property and Amendment to the Redevelopment Plan for the Merged Chino Redevelopment Project Area, Chino, California.

A comment letter on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, that addressed population, employment and housing was received by the City of Chino from SCAG. SCAG provided current Population, Household and Employment forecasts from the 2004 Regional Transportation Plan (RTP) for the region, subregion, and City of Chino. SCAG also requested a consistency analysis of the Project with SCAG Regional Plans: Regional Comprehensive Plan and Guide, RTP, and Compass Growth Vision (contained in Section 4.9, Land Use and Planning, of this Draft EIR).

4.12.2 - Existing Conditions

Housing and Population Trends and Forecasts

The most recent population figure available from the State Department of Finance are for January 2007, at which time the population of Chino was recorded at 81,224 persons. Current SCAG forecasts (2004 RTP) for the region, subregion and City of Chino are as follows:

Table 4.12-1: Regional Growth Forecasts

	2010	2015	2020	2025	2030
Adopted SCAG Regionwide Forecasts					
Population	19,208,661	20,191,117	21,137,519	22,035,416	22,890,797
Households	6,072,578	6,463,402	6,865,355	7,263,519	7,660,107
Employment	8,729,192	9,198,618	9,659,847	10,100,776	10,527,202

Table 4.12-1 (Cont.): Regional Growth Forecasts

	2010	2015	2020	2025	2030
Adopted SANBAG Forecasts¹					
Population	2,059,420	2,229,700	2,397,709	2,558,729	2,713,149
Households	618,782	686,584	756,640	826,669	897,739
Employment	770,877	870,491	972,243	1,074,861	1,178,890
City of Chino Forecasts					
Population	82,319	90,563	98,703	106,500	113,977
Households	20,818	23,589	26,451	29,306	32,202
Employment	41,983	44,714	47,507	50,321	53,174
Notes: SANBAG - San Bernardino Associated Governments. Source: SCAG 2004 Regional Transportation Plan.					

The Edgewater Project site is within Tract 19, Block Group 8, Block 8.03. Population and housing for these categories from the most recent Census (2000) are as follows:

- Tract 19: 18,326 population and 4,820 housing units;
- Block Group 8: 2,286 population and 68 housing units;
- Block 8.03: 31 population and 8 housing units.

The U.S. Census did not include information regarding employment and income for the Block Group or Block levels. The most representative data, therefore, available regarding employment and income is for Tract 19. Table 4.12-2 is a comparison of the 2000 Census data of the City of Chino as a whole with the population characteristics of Tract 19.

Table 4.12-2: 2000 Census Population Characteristics

Population Characteristics	City of Chino	Census Tract 19
Population	67,600	18,326
Households	17,304	4,188
Number employed	26,981	7,883
Unemployment rate	4.3%	3.8%
Median household income	\$55,401	\$65,421
Percent of households living below poverty level	6.3%	3.3%
Source: 2000 U.S. Census, as taken from The Preserve Final EIR, Section 5.10, March 2003.		

Table 4.12-3 identifies the 2000 Census employment composition for the City of Chino and Tract 19.

Table 4.12-3: 2000 Employment Composition

Job Categories	City of Chino	Census Tract 19
Managerial/Professional	7,702 (28.5%)	2,648 (33.6%)
Sales and Office Occupations	7,920 (29.4%)	2,556 (32.4%)
Service Occupations	3,649 (13.5%)	801 (10.2%)
Construction, Extraction & Maintenance	2,528 (9.4%)	593 (7.5%)
Production, Transportation & Material-Moving	4,952 (18.4%)	1,048 (13.3%)
Farming, Fishing & Forestry Occupations	230 (0.9%)	237 (3.0%)
Total	26,981	7,883
Source: 2000 U.S. Census, as taken from The Preserve Final EIR, Section 5.10, March 2003.		

4.12.3 - Regulatory Setting

Regional

Southern California Association of Governments - Regional Comprehensive Plan and Guide

The SCAG Regional Comprehensive Plan and Guide (RCPG) states the region's forecasts and policies for dealing with anticipated growth, including population, housing, and employment throughout Southern California (see Table 4.12-1). Growth projections contained in the RCPG are based on a compilation of county and local projections. RCPG forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/traffic, and other infrastructure issues.

The concept of a job-to-housing balance is found in the growth management chapter (GMC) of the RCPG. This concept is directed at minimizing commute distances, reducing new infrastructure needs and costs, minimizing traffic congestion, conserving energy, and improving air quality. The primary objective has been to promote balanced development at the regional and subregional levels. Balanced development represents a mix of housing and employment opportunities expressed in the form of a ratio of jobs to housing available in a given area. A subregion is theoretically considered to be in balance if it provides sufficient employment opportunities for the population residing within a reasonable commute distance, which is generally considered to be the same subregion. Subregions with employment-to-housing ratios that reflect the SCAG regional average are generally considered to be balanced. Areas with ratios that significantly exceed the regional average are considered to be job rich, whereas areas with ratios significantly below the regional average are considered housing rich.

Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA) is a key tool for SCAG and its member governments to plan for growth. The RHNA quantifies the need for housing within each jurisdiction. Communities then plan, consider, and decide how they will address this need through the process of completing the Housing elements of their General Plans. The RHNA does not necessarily encourage

or promote growth but allows communities to anticipate growth so that they can grow in ways that enhance quality of life, improve access to jobs, transportation, and housing, and not adversely impact the environment.

Local

City of Chino General Plan

The City of Chino General Plan, Land Use Element (December 1990) and Housing Element (September 2001), identifies goals and policies relating to housing and population, presented in Table 4.12-4. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.12-4: Land Use and Housing Element Goals and Policies Addressing Population, Housing, and Employment

Reference	Description
Land Use Element	
Growth and Identity General Policy A	The City of Chino has set no maximum population limits. Growth shall be in a phased and orderly manner consistent with the availability of adequate public and private services, utilities, and public facilities.
Housing Element	
Goal G4-2	To assist in the provision of adequate housing to meet the affordable housing needs of the community.
Policy P4-2.2	Expand affordable homeownership opportunities for low and moderate income households.
Goal G4-3	To provide adequate housing sites through appropriate land use, zoning, and specific plan designations to accommodate the City's share of regional housing needs for lower, moderate, and upper income households.
Policy P4-3.1	Encourage adequate provision of a wide range of housing by location, type, and price to meet the existing and future needs of residents in all economic segments of the population.
Policy P4-3.3	Facilitate development of a variety of housing types in the City specific plan areas. Continue to provide flexible development standards through the Planned Development Overlay District.
Goal G4-5	To promote equal opportunity for all residents to reside in the housing of their choice.
Policy P4-5.1	Continue to enforce fair housing laws prohibiting arbitrary discrimination in the building, financing, selling or renting of housing on the basis of race, religion, family status, national origin, physical handicap or other such circumstances.

The Preserve Specific Plan and EIR

The Preserve EIR evaluated the housing and population impacts for The Preserve Specific Plan and concluded that impacts related to population and housing were less than significant. This conclusion was based on the 9,779 dwelling units associated with The Preserve Specific Plan. Utilizing the City of Chino's now current adopted persons to household ratio of 3.61, this would translate into a

population of 35,302 persons being introduced into The Preserve Specific Plan area. (The Preserve EIR used the figure of 3.4 persons per household, the then-adopted average population per household rate, translating into a population for The Preserve Specific Plan area of 33,249. It is assumed that each dwelling unit equates to one household unit.)

The Preserve Specific Plan (2003) designated 3.65 acres of the Edgewater Project site for Estate Residential use (2 dwelling units or du/acre). Projected population associated within this limited area of Estate Residential use, using the 2003 average population size per household of 3.4 persons, would be approximately 24 persons (3.65 acres x 2 du/acre = 7 du maximum x 3.4 persons/household). The remaining area within the Project site of approximately 269 acres was designated for OS-R (14.49 acres), Agricultural and Open Space Natural (AG/OS-N, 197.14 acres), and Open Space-Natural (OS-N, 57.55 acres). The Preserve EIR found that implementation of the Specific Plan would not result in significant population, housing, or employment impacts, either at the project or cumulative level.

4.12.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to population and housing are significant environmental effects, the following questions are analyzed and evaluated: Would the Project:

- a.) 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)?
- b.) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- c.) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

4.12.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Table 4.12-5 provides of comparison of existing Specific Plan and proposed Project conditions for population and housing.

Table 4.12-5: Comparison of The Preserve Specific Plan Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site	The Preserve Specific Plan as amended for Edgewater Communities Project	Change
Total developed acreage devoted to residential and ancillary uses.	3.65 acres	142.09 acres	+138.44 acres
Dwelling Units	7 dwelling units	1,074 dwelling units	+1,067 dwelling units
Projected population	25 persons ¹	3,877 persons	+3,852 persons
Notes: ¹ At 2 dwelling per acre in the Estate Residential designation, 7 dwelling units are permitted x 3.61 persons/household = 25.27 persons. 3.61 is the current population/household average size. Source: PBR, November 2006; MBA, 2008.			

Population Growth

Impact 4.12-1: The Project will induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
[CEQA Population / Housing Threshold 12(a)]

Impact Analysis

Population Generation

The proposed Project involves the development of 1,074 dwelling units. Based upon the City of Chino's current adopted persons to household ratio of 3.61 persons per household, implementation of the Project will allow a population of 3,877 additional persons within the Project site. Existing land use designations would permit approximately 25 persons within the Project site, plus any additional persons associated with limited rural residences associated with agricultural and/or open space uses.

SCAG population forecasts for the City of Chino, as provided in Table 4.12-1, are repeated in Table 4.12-6 below and modified to reflect the increase in population from Project implementation.

Proposed Project Phase 1 (2010-2011: 602 units) and Phase 2 (2012-2014: 377 units) would lead to construction of 979 units or a population of 3,534 persons (979 units x 3.61 persons/household).

Proposed Project Phase 3 (2015-2019: 95 units) would result in a population of 343 persons (95 units x 3.61 persons/household). Estimated population expected with Project implementation is compared to SCAG projections for the City of Chino as shown in Table 4.12-6.

Table 4.12-6: Population Forecasts for City of Chino

	2007	2010	2015	2020	2025	2030 (General Plan Buildout)
Department of Finance – actual population (persons)	81,224	—	—	—	—	—
SCAG (persons)		82,319	90,563	98,703	106,500	113,977
Percentage increase over prior SCAG population entry (approx.)		—	10%	9%	8%	7%
Added Population from Edgewater Project (persons)		—	3,534	3,877	3,877	3,877
SCAG Projections modified to include Edgewater Project (persons)		—	94,097	102,580	110,377	117,854
Percentage increase in SCAG projected persons with Proposed Project (approx.)		0%	4%	4%	4%	3%
Percentage increase over prior modified population entry (approx.)		—	—	9%	8%	7%
Source: Department of Finance, SCAG, Michael Brandman Associates, 2008.						

The addition of 3,877 persons in population from the proposed Project would amount to approximately 18 percent of the population growth between 2007 population and 2020 (102,580 less 81,224), and 11 percent of the population growth between 2007 population and 2030 (117,854 less 81,224). Because the Project site was designated for agricultural and open space land uses, population growth on the Project site was not considered in long range population growth projections. However, the addition of the population generated by the Project will not induce substantial population growth in the area based on the isolated nature of the Project site, and the limited amount of adjacent acreage that could be developed for urban uses.

The Preserve Specific Plan as amended for the Edgewater Communities Project will result in the modification of The Preserve Circulation Plan to incorporate the street improvements associated with the proposed Project. Project access would be provided off Chino Corona Road and Cucamonga Avenue. Roadway improvements and the addition of infrastructure to service the Project site would not have an indirect effect on growth and increased population based on the isolated nature of the Project site, and the limited amount of adjacent acreage that could be developed for urban uses.

From a housing standpoint, provision of 1,074 dwelling units can be considered a beneficial impact in that additional units will be needed to house future Chino residents. The Project plans to offer a range of housing options. Project housing would include 537 low density residential units (5.5 du/acre maximum), 287 medium density residential units (10 du/acre maximum), and 250 high density

residential units (average density of 16 du/acre). Such opportunities would provide housing within varied price ranges to serve the population of the City of Chino.

The Preserve EIR predicted that the Specific Plan would generate 13,376 jobs. Dwelling units associated with the Specific Plan equaled 9,779 units. If the assumption is made that the proposed Project would generate 10 jobs at the church/school and museum/retail facilities, the ratio for the Specific Plan area with Edgewater Project would equal 1.24 $([13,376 \text{ jobs} + 10] / [9,779 \text{ households} + 1,074])$; assumes each dwelling unit equates to one household unit). The Preserve EIR (2003, Section 5.10) cited a projected San Bernardino County 2020 jobs/housing ratio of 1.28. The proposed Project jobs/housing ratio is not significantly below the 2020 County ratio, and would be offset by the projected 2020 Specific Plan area jobs/housing ratio of 2.06 (The Preserve EIR, Section 5.10). A less than significant impact on the regional jobs/housing balance would be expected.

In summary, housing impacts are considered beneficial, a less than significant impact on the regional jobs/housing balance would be expected, and impacts in terms of population growth are considered less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant.

Housing Displacement / Replacement Housing

Impact 4.12-2:	The Project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. [CEQA Population / Housing Threshold 12(b)]

Impact Analysis

The Project site consists of an active dairy operation, and open land. Three occupied residential units are located onsite (a fourth unit is unoccupied), housing approximately 11 persons (3 units x 3.61 persons) who are employed by the existing dairy operation. Implementation of the proposed Project would result in removal of the existing dairy operation and associated residential units. This impact is similar to The Preserve Specific Plan, which allows limited estate residential units in the northernmost portion of the Project site where the dairy operation is location and would likely lead to eventual removal of the existing dairy operation and associated residential units. In relation to the housing stock within the greater regional area, removal of three to four homes is not considered a substantial displacement. The City of Chino currently has 19,978 residential units that include attached, detached, and mobile homes (California Department of Finance). The vacancy rate is 3.32 percent, which equates to 663 vacant homes. Therefore, the removal of the three to four residential

units from the Project site would not result in a significant environmental impact, and no mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Housing Displacement / Replacement Housing

Impact 4.12-3:	The Project would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere. [CEQA Population / Housing Threshold 12(c)]

Impact Analysis

There are three occupied residential units on the Project site housing approximately 11 residents. As indicated in the analysis for Impact 4.12-2, the residential buildings on the site are used to house employees of the existing dairy operation, which is expected to be removed with or without Project implementation. Additionally, the displacement of approximately 11 residents on the Project site is not considered significant in the context of the greater regional area. Finally, vacant housing stocks in the immediate area provide housing opportunities for displaced residents. Impacts related to this issue would be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impact

Impact 4.12-4:	The Project would result in a significant cumulative impact related to the generation of population in the City of Chino.

The proposed Project involves the development of 1,074 dwelling units. The addition of the population generated by the Project will not induce substantial population growth in the broader area, based on the isolated nature of the Project site, and the limited amount of adjacent acreage that could be developed for urban uses. Cumulative population and housing impact is considered to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.12.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). No mitigation measures were identified for population and housing in The Preserve EIR, however, because no significant impacts were identified. The proposed Project would also not generate significant population and housing impacts at either the project or cumulative levels. No mitigation measures are required.

4.13 - Public Services

4.13.1 - Introduction

This section describes the existing public services setting and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information obtained from City Staff and public service providers. The Preserve Specific Plan and EIR were also utilized. Specific sources by service area are contained below within Sections 4.13.2 and 4.13.5. Written communications received are contained in Appendix K.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. Comments on public services were contained in letters submitted to the City by Chino Valley Independent Fire District (CVIFD, summarized below) and City of Chino Hills, addressing Chino Valley Unified School District (CVUSD) capacity to accommodate additional high school students. A CVUSD representative also attended the January 2007 Public Scoping Meeting, inquiring about the Project church/school site. Comments from the CVIFD letter are as follows:

- The Project is outside the areas which have been intended for development; therefore, fire and paramedic response times would be excessive.
- Fire water flow is required to be 1,000 gallons per minute (gpm) at 0 per square inch (psi) residual pressure for a 2-hour duration.
- A 100-foot fuel modification zone may be required at the perimeter of the development.
- The development is required to comply with all current fire protection requirements and regulations.
- Multiple points of vehicular access and egress are required to all areas of the development.
- Any gated entries and/or traffic signals proposed by the Project must include emergency response signal control devices.

4.13.2 - Existing Conditions

Fire Protection Services

Information for use in the preparation of this section was obtained from the Chino Valley Independent Fire District (CVIFD, 2007), who provides fire protection, paramedic service, urban search and rescue service, hazardous materials emergency response service, disaster preparation, and public education to the Cities of Chino and Chino Hills as well as a small unincorporated area north of the City of Chino. The Fire District boundaries include approximately 80 square miles.

CVIFD facilities consist of six fire stations, one training facility, and administrative offices that house the offices of the Fire Chief, Fire Marshal, Division Chief(s) and Battalion Chief(s). CVIFD participates in the State of California Master Mutual Aid System. A Mutual Aid agreement has been

established by the City of Chino with the City of Ontario in the event that an emergency exceeds the capacity of either city's resources. A total of 28 personnel operate on three shifts to provide 24-hour emergency and nonemergency services. The Fire District response standard is a five-minute travel time.

The nearest facility to the Project site is Station No. 3, located at 7550 Kimball Avenue in the City of Chino, which is approximately 4 miles north of the Project site. The second nearest fire station is Station No. 2, located at 5551 Butterfield Ranch Road, approximately 6 miles west of the Project site in the City of Chino Hills. Both fire stations operate a paramedic fire engine with four personnel. Station No. 63 also has a water tender, which is not staffed.

Police Protection Services

Information for use in the preparation of this section was obtained from the City of Chino Police Department (2007), who would provide police protection services to the Project site. The City of Chino General Plan specifies a goal of maintaining a 5-minute police emergency response at all times, and for this level of protection to be available at the time of occupancy of new residential developments. The average emergency response time was 7 minutes 14 seconds for the Project area during calendar year 2006, and 5 minutes 16 seconds Citywide for the same year. The Chino Police Department currently provides 1.23 sworn officers for every 1,000 residents and employs a total of 100 sworn officers and 52 full-time civilian support staff members. The Chino Police Department uses the officer-to-population ratio, which also corresponds to response time, as a measure of service capacity.

The primary facility for the Chino Police Department is located at 13250 Central Avenue, Chino, California. A police substation is located on the grounds of the Chino Airport, closer to the Project site than the primary facility. However, the Chino Airport substation is not staffed and mainly serves as an additional location for Police Department staff to complete reports and investigations.

Schools

The Project site is located within the CVUSD. The District operates a total of 36 schools, which includes twenty-three grades K-6 schools, one grades K-8 school, five grades 7-8 schools, four grades 9-12 schools, and three continuation schools. CVUSD enrollment for school year 2007-2008 was recorded as 33,717 students by CVUSD in March 2008 (most recent data available).

The three schools to serve the Project site include Rhodes Elementary, Wood Crest Jr. High School, and Chino Hills High School. In addition, the community college, Chaffey College Chino Center and its new technical school, Information Center in Chino, will serve Project area. Table 4.13-1 provides student and capacity information for school year 2007-2008.

Table 4.13-1: School Capacity/Current Enrollment 2007-2008 School Year

School	Capacity	Current Enrollment (2007-2008 School Year)
Rhodes Elementary	720	531
Wood Crest Jr. High School	1,000	575
Chino Hills High School	3,200	2,619
Notes: Data is from March 2008 and is most recent data available. Source: CVUSD, 2008.		

With approval of Proposition 1A on November 13, 1998, the School Fee provisions of Senate Bill 50 (SB 50) became effective. Under SB 50, statutory caps have been placed on developer fees, and local governments cannot deny a Project based on the adequacy of school facilities. SB 50 also permits additional developer fees to be levied in amounts up to approximately 50 percent of the cost of constructing school facilities and for land acquisition and site development.

Parks

The City of Chino has a total of 15 neighborhood and community parks. Prado Regional Park and Chino Hills State Park, as well as many other recreational facilities are located within the Prado Basin (see Section 4.14, Recreation, of this Draft EIR for additional discussion). The nearest park to the Project site is Prado Regional Park, west of the Project site, a 2,280-acre park featuring a campground, golf course, sports fields, and providing opportunities for numerous other recreational activities. Park and recreational facility impacts are addressed in Section 4.14.2, Recreation of this Draft EIR.

Other Public Facilities

The City of Chino is currently served by the Chino Branch Library facility located at 13180 Central Avenue. The Chino Branch Library is owned by the City of Chino with library services provided by the San Bernardino County Library. The Chino Branch Library facility is currently not sufficient to meet the needs of the population and no plans exist for the expansion of the library.

4.13.3 - Regulatory Setting

City of Chino General Plan

The City of Chino Land Use Element identifies a general policy relating to public services, presented in Table 4.13-2. Goals and policies related to parks are listed in Section 4.14, Recreation of this Draft EIR. Section 4.9, Land Use and Planning, Table 4.9-2 contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.13-2: Land Use Element Goals and Policies

Reference	Description
Land Use Element	
General Policy	Growth and Identity - The City of Chino has set no maximum population limits. Growth shall be in a phased and orderly manner consistent with the availability of adequate public and private services, utilities and public facilities.
Supporting Policy (No. 10 of 10 Supporting Policies)	10. Development should not exceed the capacity of the public and private utilities and services to provide services at a minimum level of safety, adequacy, and efficiency.

The Preserve Specific Plan and EIR

For Public Services, The Preserve EIR found that implementation of the Specific Plan would result in no significant impacts after mitigation. All public service impacts identified could be mitigated to a less than significant level.

Under The Preserve Specific Plan, only 3.65 acres of the Edgewater Project site were designated for development as Estate Residential (at 2 dwelling units per acre or 7 units total). The remaining area of approximately 269 acres was designated for Open Space-Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N), and Open Space-Natural (OS-N). Public service planning as part of The Preserve planning effort did not account for extensive residential development within the Edgewater site.

4.13.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to public services are significant environmental effects, the following question is analyzed and evaluated for the public services identified:

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- a.) Fire Protection?
- b.) Police Protection?
- c.) Schools?
- d.) Parks?
- e.) Other public facilities?

4.13.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Project implementation would increase acreage occupied by residential uses within the Project site from 3.65 acres under the Specific Plan (7 maximum dwelling units) to 142.09 acres (1,074 maximum dwelling units) under the proposed Project. Museum/retail and church/school uses would also be established under the proposed Project.

Fire Protection

Impact 4.13-1:	The Project would incrementally increase call volumes for fire protection services. [CEQA Public Services Threshold 13(a)]

Impact Analysis

Information regarding fire protection was provided by CVIFD via written correspondence (see Appendix K) and in CVIFD's NOP comment letter dated December 27, 2006 (contained in Appendix A). A five-minute response time standard for fire and paramedic emergency calls has been established by CVIFD.

Project design features related to fire prevention measures and fire emergency access are key factors in the maintenance of adequate response times to the Project site and vicinity. The proposed Project will comply with the Uniform Building Code, the 2007 California Fire Code, and City of Chino regulations related to fire access; fire flow requirements; the number, placement, and spacing of hydrants and automatic fire extinguishing systems. In addition, the site plan, architectural details, and landscape design for the proposed Project are being addressed through City staff review and the design review process prior to Project implementation, resulting in compliance with all applicable codes, ordinances, and requirements. Impacts to fire protection and emergency medical services due to Project design are thereby minimized, resulting in a less than significant impact regarding compliance with applicable codes, ordinances, and requirements related to fire protection services.

The proposed Project would incrementally increase call volume for fire protection services, and based upon this increase, the proposed Project could potentially impact fire protection services. CVIFD indicated that the Project site is outside of areas which have been previously intended for development, and therefore not anticipated in previous CVIFD planning. Accordingly, response times to the Project site are expected to exceed the five-minute emergency response standard. However, the Project developer would be required to pay the City's Fire Facility Fee, in accordance with City Ordinance 3.40.030, which requires individual projects to make a fair-share contribution towards fire facilities and equipment projects within the City. Through Project design and payment of the Fire Facility Fees that provide funds for fire stations and equipment in the City of Chino, implementation of the proposed Project would result in a less than significant impact to fire protection services.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Police Protection

Impact 4.13-2:	The Project would generate a need for additional police officers and police protection equipment. [CEQA Public Services Threshold 13(a)]

Impact Analysis

Information regarding police protection was provided by the Chino Police Department via written correspondence (see Appendix K). The Chino Police Department website provided additional information. At current staffing levels, the average response time of 7 minutes 14 seconds for emergency calls in the Project area already exceeds the 5-minute service objective of the City's General Plan. An increase in population would dilute the current service ratio of 1.32, which would correlate to a longer response time. The City of Chino Police Department estimates that implementation of the proposed Project would result in a need for 4 new sworn officers in order to maintain the current officer-to-population ratio. The addition of new officers/staff would also require the need for a fractional increase in civilian support staff, as well as the purchasing of new equipment, including two new police vehicles. The existing police facilities are appropriately sized to accommodate such an increase in staff and would not require the construction of physical improvements. The Project would be required to pay the City's mandatory Development Impact Fees, per City Ordinance 3.40.030, which includes separate funds for police training and equipment. The payment of the mandatory fees would reduce impacts to the City's police protection services to less than significant and no mitigation would be required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Schools

Impact 4.13-3: The students generated by the proposed Project would not exceed the existing capacity of area schools.
[CEQA Public Services Threshold 13(a)]

Impact Analysis

Information provided in the following discussion regarding schools was obtained from CVUSD staff and the CVUSD website. The proposed Project would result in approximately 561 new K-12 students based on the CVUSD student generation factors and estimated student distribution to each of the three schools as shown below in Table 4.13-3.

Table 4.13-3: Student Generation

School	Maximum Proposed Dwelling Units	Student Generation Factors	Number of Students
Rhodes Elementary	SFD - 420 MFA - 404 APT - 250	SFD - 0.386 MFA - 0.207 APT - 0.138	SFD - 162.1 MFA - 83.6 APT - 34.5
Wood Crest Jr. High School	SFD - 420 MFA - 404 APT - 250	SFD - 0.099 MFA - 0.172 APT - 0.250	SFD - 41.6 MFA - 69.5 APT - 7.0
Chino Hills High School	SFD - 420 MFA - 404 APT - 250	SFD - 0.204 MFA - 0.138 APT - 0.083	SFD - 85.7 MFA - 55.8 APT - 20.8
Sub-Total	SFD - 420 MFA - 404 APT - 250	SFD - 0.689 MFA - 0.517 APT - 0.250	SFD - 289.4 MFA - 208.9 APT - 62.3
Total	1,074	N/A	560.6
Notes: SFD = single-family detached MFA = multi-family attached APT = apartment Source: Chino Valley Unified School District, 2008.			

Remaining capacities at the junior high and high school levels suggest that the Edgewater students could be absorbed, although City of Chino Hills highlights a capacity issue at Chino Hills High School in their comment letter on the NOP. Adding Edgewater elementary students to the Rhodes Elementary current school population would put the Rhodes school over capacity. The Project would be required to pay SB 50 fees, which would be used to fund improvements to existing or planned schools in the District. With the payment of mandatory SB 50 fees, potential impacts to schools should be reduced, resulting in a less than significant impact. Mitigation would not be required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Other Public Facilities

Impact 4.13-4:	The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. [CEQA Public Services Threshold 13(a)]

Impact Analysis

The Chino Branch Library has indicated that existing library facilities are not sufficient for the current population and there are no plans for expansion. The additional population that would result from buildout of the proposed Project would increase demand for library services and would contribute to the lack of materials available due to current demand. The County Library receives a share of the basic 1 percent property tax levy that is used to pay for annual operating and maintenance costs. This share is estimated at 1.4 percent of the basic 1 percent levy. The proposed increase in the City's population resulting from the Project would result in a corresponding increase in the tax base from which the Chino Library receives funding. Additionally, the Project would be required to pay mandatory development impact fees per City Ordinance 3.40.030, which includes Public Facilities and Equipment Fees that would provide for the construction of public facility improvements. Accordingly, Project impacts to the City's library can be reduced to less than significant and no mitigation would be required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.13-5:	The Project, in conjunction with other past, present, and reasonably foreseeable future projects, will not result in a significant cumulative impact related to public services.

Impact Analysis

Implementation of the proposed Project together with development of related projects (see Table 3-2) will contribute cumulatively to public service provider's ability to provide service. It is reasonable to assume, however, that upon approval of the required discretionary actions for the cumulative projects, individual project service requirements would be addressed through the respective jurisdictions' General Plan and community planning processes and by the respective service providers. In addition, each project would be individually subject to technical review by the respective jurisdictions and

would be required to comply with the respective jurisdictions' requirements related to the provision of public services.

The Project site is proposed for development as a water-oriented community in the vicinity of other residential land uses within the Specific Plan area. Although Project implementation will require the provision of services to an area not previously designated for development at the scale proposed, provision of public services is planned for areas immediately to the north of the Project site within portions of The Preserve Specific Plan area already approved for development.

Development of the Project site as proposed may induce additional urbanization of the broader area within the Prado Flood Control Basin previously identified as open space. However, the Project and any future proposed projects will be required to comply with all standard regulatory requirements concerning any public service provider's capability to provide service. Therefore, upon compliance with standard regulatory and fee requirements, the proposed Project in conjunction with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to public services.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.13.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.13-4 below provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.13-4: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Public Services

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
Edgewater Project would comply with impact fee requirement.	PS-F-1. Impact fees for fire facilities and equipment.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project does not include site for additional fire facility.	PS-F-2. New fire station.	New fire station has been established within the Chino Airport.
Edgewater Project would comply with fire protection requirements for developments.	PS-F-3. Fire protection development requirements.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Water lines within Project site will be designed to meet fire requirements.	PS-F-4. Water lines.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Fire hydrants will be designed and located per Fire District specifications.	PS-F-5. Fire hydrants.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project would not interfere with provision of fire protection services by State Department of Forestry & Fire Protection to wildland fire areas.	PS-F-6. State Department of Forestry & Fire Protection and wildland fire areas.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project would comply with impact fee requirement.	PS-P-1. Police impact fees.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project developers can work with CVUSD to plan school service for the proposed Project.	PS-S-1. Schools and school service planning with CVUSD.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project would comply with school fee requirement.	PS-S-2. Developer fees for schools.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project implementation will not result in construction activity adjacent to or near operating schools.	PS-S-3. Notification to schools of pending construction activity adjacent to or near operating schools.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Edgewater Project would comply with impact fee requirement	PS-L-1. Library facilities and services.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.

Table 4.13-4 (Cont.): Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Public Services

Edgewater Communities Mitigation Measure	Corresponding Mitigation Measure from The Preserve EIR	Description of Relationship
Edgewater Project would comply with impact fee requirement	PS-L-2. Developer fees for expansion of existing library facilities or construction of new facilities.	Edgewater Project implementation will not represent a conflict with The Preserve EIR mitigation.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.14 - Recreation

4.14.1 - Introduction

This section describes the existing setting for recreation and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information obtained from numerous documents, as follows. Complete references for all listed documents are contained in the Section 11, References of this Draft EIR.

- The Preserve Specific Plan and Final EIR;
- City of Chino General Plan;
- County of San Bernardino General Plan;
- Chino Creek Integrated Plan;
- Prado Basin Master Plan and Environmental Impact Statement;
- Mill Creek Wetlands Recreation Plan;
- Amendment to The Preserve Specific Plan;
- Biological Technical Report for the Approximately 272-acre Edgewater Lake Communities Property;
- Jurisdictional Delineation of the Edgewater Lake Communities, a 272-acre Property in the City of Chino;
- Draft EIR for the Specific Plan for the Development of State Surplus Property and Amendment to the Redevelopment Plan for the Merged Chino Redevelopment Project Area, Chino, California.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on recreation were contained in letters submitted to the City.

4.14.2 - Existing Conditions

Open space in the Project area has historically consisted of dairy farms and agriculture. The transition from rural to residential use is creating demand for more parks and recreation. Recreational opportunities surrounding the Project site within the City of Chino and vicinity include neighborhood parks, sports parks, City parks, country clubs, and regional park facilities. The City of Chino maintains 15 neighborhood and community parks, including Ruben S. Ayala Community Park, located at the southeast corner of Edison and Central Avenue. Neighborhood and pocket parks are being established within the residential neighborhoods north of the Project site within The Preserve (see Exhibit 4.14-1).

Recreational opportunities are also part of the Prado Dam Basin, which offers a unique, large area of open space within rapidly developing portions of San Bernardino and Riverside Counties. The Prado Dam Basin is located at the confluence of the Santa Ana River, Chino Creek, Cucamonga Creek, and Temescal Wash.

The closest regional park to the Project site is Prado Regional Park, a multiple-facility park within the Prado Flood Control Basin that is maintained by the San Bernardino County Department of Public Works, Regional Parks Division. Prado Regional Park is a 2,280-acre park that is located along State Route 83/Euclid Avenue, south of Pine Avenue, approximately one mile west of the Project site. This park includes Prado Lake, Prado Equestrian Center and Stables, Oranco Bowmen Archery Range, Prado Olympic Shooting Range, Prado Radio-Controlled Air Park, and Prado Recreation Dog Training Facility. Prado Lake consists of 75 campsites which includes restrooms, showers, a laundry facility, indoor meetings room, three softball fields, five soccer fields, row and pedal boats. El Prado Golf Course is adjacent to Prado Regional Park.

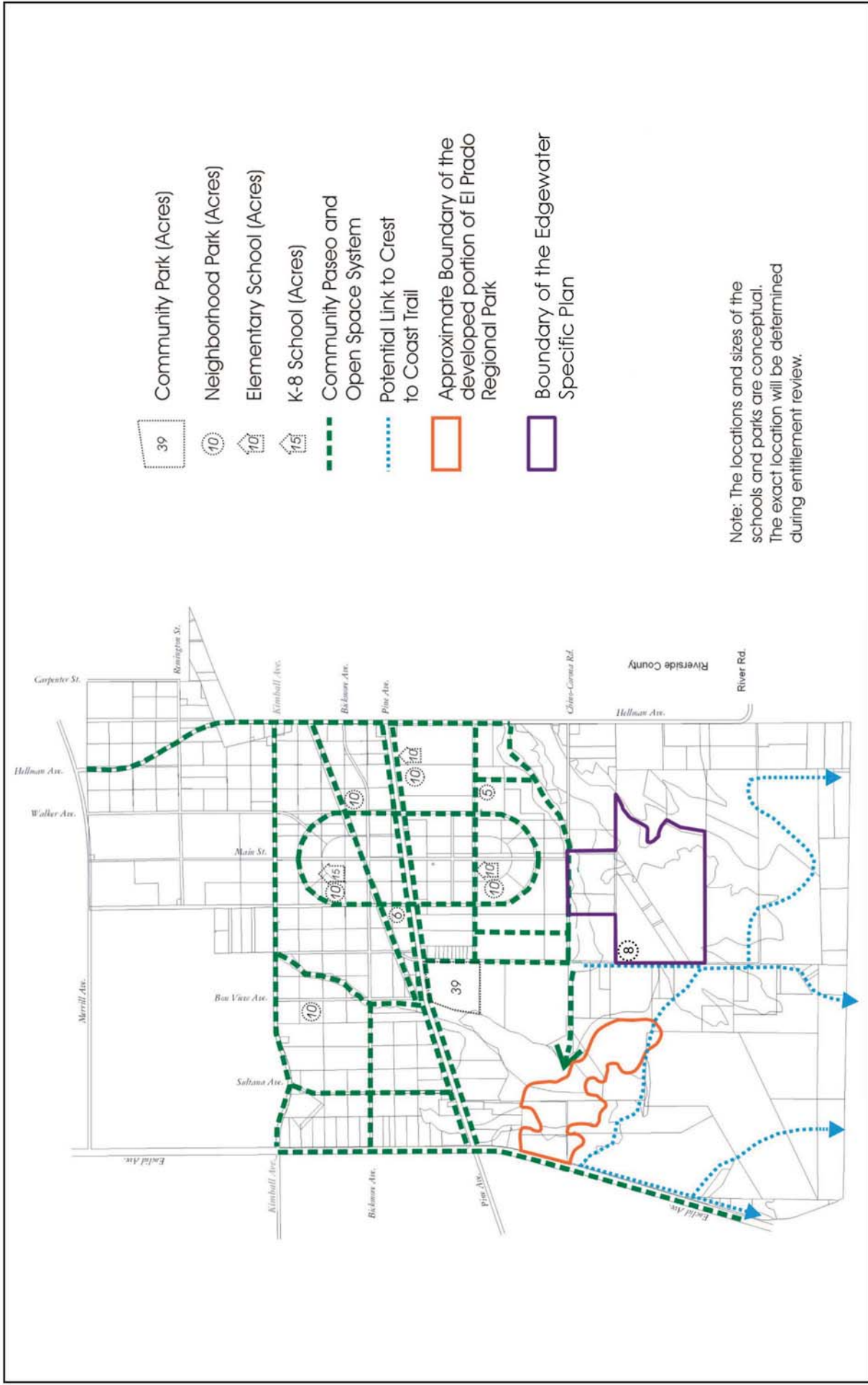
The Oranco Bowmen Archery Range consists of a nationally-sanctioned 54-target area, hillside targets for “run and shoot” national competitions, and unimproved parking facilities. Prado Olympic Shooting Range, now open to the public, was the site of the 1984 Summer Olympics shooting venue, and is run by a private concessionaire.

Chino Hills State Park lies west of the Chino Valley Freeway (SR-71), within unincorporated San Bernardino County. Other parks, outside the City of Chino and San Bernardino County but accessible from the Project area, are Butterfield Park and Prado Basin County Park, both of which are located in Riverside County.

Additional recreational facilities in the vicinity of the Project site are Big League Dreams Sports Park, Chino Hills Skate Park, Mike Raahauge Shooting Enterprise, which includes a pistol range and duck hunting, and S.C. Village Paintball Park.

As The Preserve Specific Plan area develops, major features (e.g. Community Core, residential areas, public facilities) are to be connected by a Community Paseo and Open Space System, which is a network of trails and linear open spaces. This system accommodates walking, equestrian, and bicycling transportation options. The multi-purpose trails are being implemented in accordance with The Preserve Specific Plan Conceptual Parks and Schools Plan, Bicycle Plan, and Equestrian Plan (see Exhibits 4.14-1, 4.14-2, and 4.14-3). The bicycle system is composed of off-street (Class I) and on-street (Class II) pathways. A potential link to the Crest to Coast trail is planned to extend along Cucamonga Avenue along the western boundary of the Project site (see Exhibit 4.14-1).

The Project site, as a dairy operation and vacant property, currently generates very limited demand for park and recreational facilities, based on the few residents that occupy onsite residences associated with the dairy operation.



Source: PBR, April 2007.



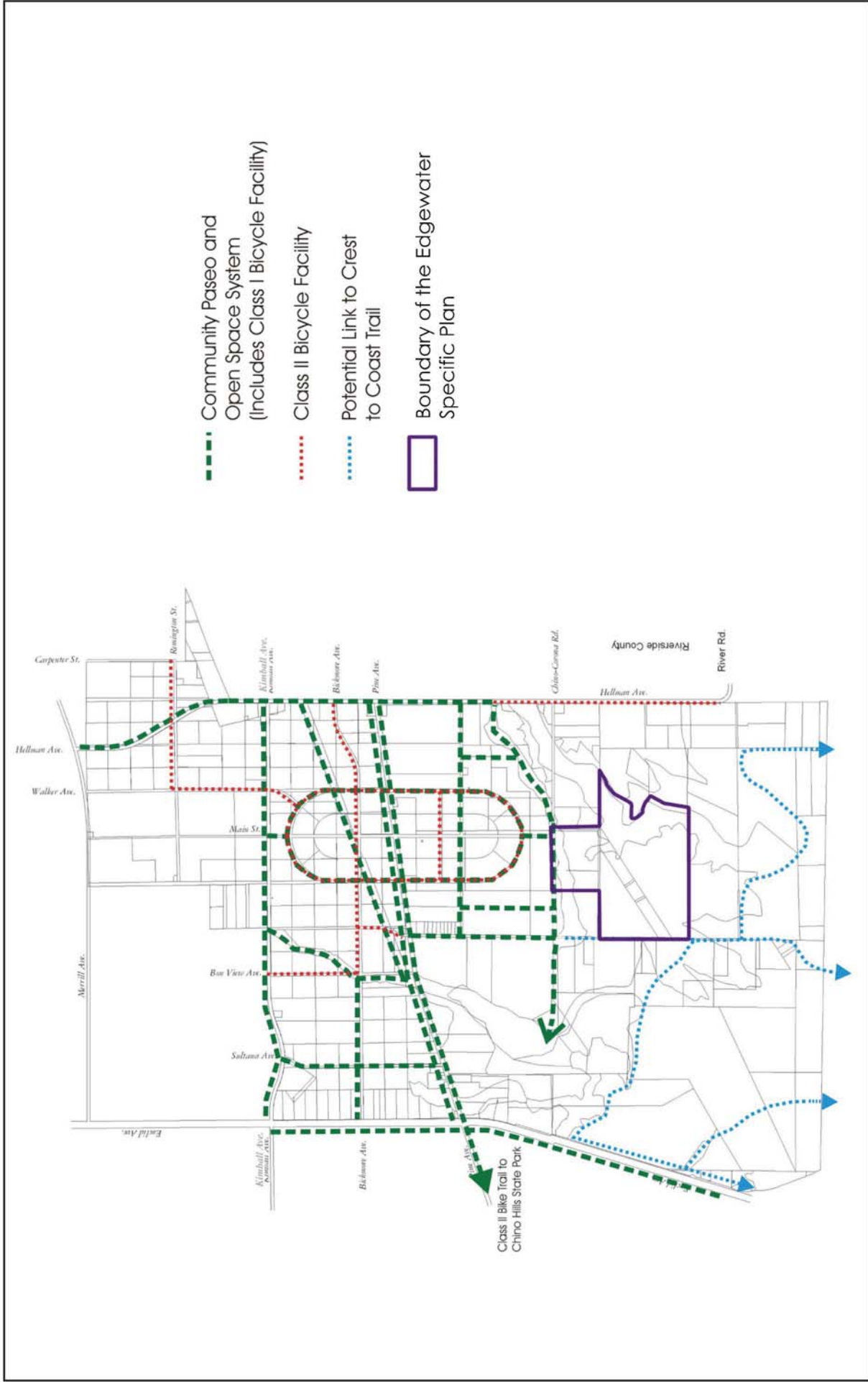
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Michael Brandman Associates

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Exhibit 4.14-1 Conceptual Parks and Schools Plan

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT



Source: PBR, April 2007.



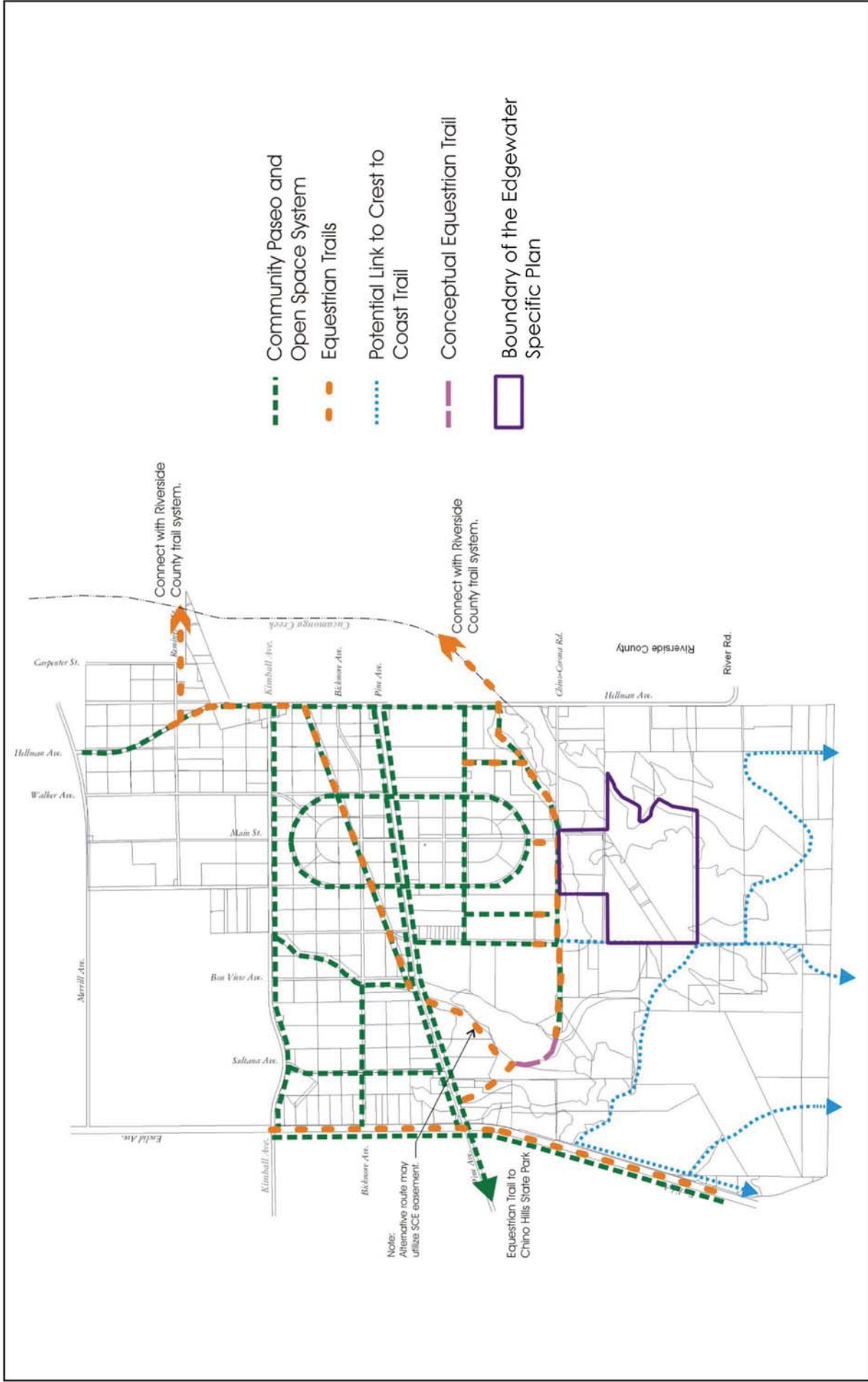
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Michael Brandman Associates

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Exhibit 4.14-2 Bicycle Plan

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT



Source: PBR, April 2007.



Not to scale

Michael Brandman Associates

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Exhibit 4.14-3 Equestrian Plan

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT

4.14.3 - Regulatory Setting

Regional

Regional Comprehensive Plan

The Open Space and Conservation chapter of the Draft Regional Comprehensive Plan (SCAG 2008) states that urban-type land uses and facilities need to support future additional population growth, which will consume a large portion of the remaining privately held land in the region. The plan emphasizes the conservation of open space areas that provide opportunities for outdoor recreation, considered important for providing a good quality of life for residents who live in highly urbanized areas of the southern California region.

Other Regional Plans

Recreational uses within the respective planning areas are addressed in the Prado Basin Master Plan, Chino Creek Integrated Plan, and Mill Creek Recreation Plan (see Section 4.8 of this Draft EIR for discussion of the individual plans).

Local

City of Chino General Plan

The City of Chino General Plan, Conservation/Open Space Element (December 1990), identifies goals and policies relating to open space for outdoor recreation, presented in Table 4.14-1. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.14-1: Conservation/Open Space Element Goals and Policies

Reference	Description
Conservation/Open Space Element	
Goal G5-15	Open Space for Natural Resources Preservation - To encourage the development of open space for preservation of the City's natural resources.
Goal G5-16	Open Space for Outdoor Recreation - To maintain and encourage the development of open space for outdoor recreation.
Policy P5-16.3	Encourage Use of SCE Easements and Flood Control Channels - To encourage and promote the use of Southern California Edison Company (SCE) easements and County of San Bernardino (County) flood control channels for the development of equestrian, bicycle, jogging, and walking trails as a means of providing recreational opportunities for Chino residents and its labor force.
Policy P5-16.4	Adequate Park Space per Service Area - To ensure that each of the City's four service areas have adequate park space to meet existing and future demands.
Policy P5-16.5	Develop Equestrian and Biking Trails - To encourage the development and utilization of equestrian and bicycle trails throughout the City while striving to link neighborhoods with one another.

Table 4.14-1 (Cont.): Conservation/Open Space Element Goals and Policies

Reference	Description
Policy P5-16.6	Link City Trails and County Trails - To encourage the connection of the equestrian and bicycle trails system with County trail systems to ultimately provide access to Prado Regional Park and Chino Hills State Park.
Policy P5-16.7	Encourage Development of Mini-Parks - To encourage the development of mini-parks throughout the City.
Policy P5-16.8	Encourage Development of Special Use Facilities - To encourage the development of special use facilities within the City's neighborhoods and community parks.
Policy P5-16.9	Encourage Use of Private Recreational Facilities - To encourage the development and use of private and quasi-public facilities for recreational enjoyment.
Policy P5-16.11	Expansion of Ayala Park - To encourage the expansion and further development of Ruben S. Ayala Community Park.
Policy P5-16.12	Use of Chino Unified School District (CUSD) Sites - To encourage the use of school sites within the CUSD for recreational opportunities.
Policy P5-16.13	Open Space for Multi-Family Projects - To encourage the development and utilization of open space within multiple family development projects.
Policy P5-16.14	Comprehensive Park and Recreational Opportunities - To encourage the comprehensive and orderly development of parks and recreational opportunities for existing and future generations of Chino residents.
Policy P5-16.16	Maintain Parks for Park Uses - To ensure that existing and future park sites remain as parks and open spaces so that their long-term preservation is maintained.
Conservation/Open Space Element Appendix A	
Goal 1	To encourage the provision of recreation facilities in new residential subdivisions.
Goal 2	To acquire park land in advance of urban development in an attempt to avoid high land costs.
Goal 3	To utilize innovative park design in relating various user groups and provide for low cost maintenance.
Goal 4	To determine current and future park and recreation requirements and design facilities and programs to satisfy the needs of residents.
Goal 5	To encourage the development of bicycle and equestrian paths and trails where planned.

The Preserve Specific Plan and EIR

The Preserve Land Use Plan designates 423 acres for Open Space-Recreation (OS-R). The OS-R land use designation is intended to establish open space areas for active and passive recreation and to provide protection from environmental hazards. The recommended park system for The Preserve includes one 39-acre Community Park and eight Neighborhood Parks ranging in size from 5 to 10 acres. The Preserve Specific Plan Conceptual Parks and Schools Plan (see Exhibit 4.14-1) identifies

the suggested location and recommended conceptual of each of the park sites based on the expected population within the various areas of the Specific Plan area. The actual location and size of the parks are to be determined upon approval of final tract or parcel maps.

The City's standard for parks and recreational facilities, as per the Quimby Act, is 3 acres per 1,000 residents. Multi-purpose trails (pedestrian, equestrian, and bicycle) are being implemented in accordance with The Preserve Specific Plan Conceptual Parks and Schools Plan, Bicycle Plan, and Equestrian Plan (see Exhibits 4.14-1, 4.14-2, and 4.14-3).

The Preserve EIR found that implementation of the Specific Plan would result in the irretrievable loss of open space. This loss of open space was considered a significant, unavoidable impact of The Preserve Specific Plan, at both project- and cumulative levels. The Preserve Specific Plan designated 3.65 acres of the 273-acre Project site for development as Estate Residential. Within the remaining area of the Project site, 14.59 acres were designated for OS-R. Agricultural and Open Space Natural, and Open Space-Natural designations were applied to the remainder of the Project site (197.14 acres as AG/OS-N, and 57.55 acres as OS-N). Conversion of areas within the Project site designated for AG/OS-N and OS-N and resultant loss of open space is addressed in Section 4.9, Land Use and Planning of this Draft EIR.

4.14.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to recreation have significant environmental effects, the following questions are analyzed and evaluated:

- a.) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b.) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

4.14.5 - Project Impacts and Mitigation Measures

This section discusses potential recreation impacts associated with the development of the Project and provides mitigation measures where appropriate. Table 4.14-2 displays a comparison of recreational uses under The Preserve Specific Plan (2003) and as amended for the Edgewater Communities Project (March 2008).

Table 4.14-2: Comparison of The Preserve Specific Plan Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site (acres)		The Preserve Specific Plan as amended for Edgewater Communities Project (acres)		Change (acres)
Open Space-Recreation (OS-R)	14.59		71.39		+56.8
Open Space- Water (OS-W)	0.00		39.22		+39.22
Demand for Park and Recreational Facilities	0.76 acs ¹		11.63 acs ²		+10.87
Notes: ¹ At 2 dwelling per acre in the Estate Residential designation, 7 dwelling units are permitted x 3.61 persons/household = 25.27 persons. Three acres of park and recreational facilities are required for every 1,000 residents. Demand for park and recreational facilities for 25.27 persons is, therefore, 076 acres. ² See Impact Analysis for Impact 4.14-1. Source: PBR, November 2006; MBA, 2008.					

Increase Use of Parks

Impact 4.14-1:	The Project would 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. [CEQA Recreation Threshold 14(a)]

Impact Analysis

The proposed Project would allow the development of 1,074 residential units on the Project site, converting the dairy operation and vacant property to residential and open space uses (natural, recreation, and water). An increased demand for parks and recreational facilities would result. Based upon the City's standard of 3 acres of park and recreational facilities for every 1,000 residents, full build-out of the Project site would result in the need for 11.63 acres of park and recreational facilities based upon the estimated Project buildout population of 3,877 persons (1,074 dus x 3.61 persons/household).

The proposed Project is planned to include 71.39 acres of Open Space-Recreation (OS-R). Recreational, natural, and water open space features within the proposed Project would be linked to other neighborhoods and major features within The Preserve by the community paseo and open space system. This represents an increase of 56.8 acres (up from 14.59 acres designated for the Project site in The Preserve Specific Plan).

The City Municipal Code (Sections 18.01.050 and 18.01.120) and The Preserve Specific Plan require park lands to be developed for active recreational uses in order to receive credit towards the City park requirement. The proposed Project includes no park lands intended for development for active recreational uses that would satisfy Project requirements. The identified need for 11.63 acres of park and recreational facilities created by the Project population would, therefore, not be met.

Consequently, it is possible that use of existing neighborhood and regional parks or other recreational facilities by the Project population could result in the occurrence or acceleration of substantial physical deterioration of the affected facilities. This is considered a significant impact.

The increase of 56.8 acres of OS-R within the Project site from The Preserve Specific Plan can still be viewed as a beneficial aspect of the proposed Project. An additional 39.2 acres of open space water is proposed to be contained within five onsite lakes. No swimming or motorized boating will be allowed, but the lakes are suitable for fishing and use of non-motorized boats. The City does not consider fishing and limited non-motorized boating a significant recreational amenity, however, and would not consider the lakes eligible for park fee credit.

Based on the Project's deficiency in acceptable park acreage, impacts to parks and recreational facilities resulting from Project implementation are considered significant.

Level of Significance Before Mitigation

Significant. [CEQA Recreation Threshold 14(a)]

Mitigation Measures

Compliance with City park requirements are required. Project design does not allow the Project park requirements to be met and no mitigation measures are currently available to allow the Project park requirement to be met.

Level of Significance After Mitigation

Significant. [CEQA Recreation Threshold 14(a)]

Recreational Facilities Physical Effect on Environment

Impact 4.14-2:	The Project includes recreational facilities which could have an adverse physical effect on the environment. [CEQA Recreation Threshold 14(b)]

Impact Analysis

The Edgewater Communities Project would create a 68.59-acre Open Space Recreational area adjacent to the Open Space Natural area along Mill Creek. (The remaining 2.80 acres of OS-R is located along Chino Corona Road, combining for the total 71.39 acres of OS-R; see Exhibit 3-8. Detention basins would be included in this total OS-R acreage figure). The Project Plan designates a 20.23-acre area for open space natural (OS-N) land use between Mill Creek and the OS-R area. Project technical studies prepared by Glenn Lukos Associates (Biological Technical Report and Jurisdictional Delineation, 2007) address biological resources and jurisdictional issues associated with the Project site, primarily in connection with Mill Creek. Design of recreational facilities within the OS-R designation adjoining the open space natural area along Mill Creek would need to ensure that these recreational facilities and their ongoing public use would not negatively effect biological resources within and adjacent to Mill Creek, either during the construction or operational phases of the Project. Recreational sport fields or structures would need to be restricted within a defined

distance of riparian habitat suitable to least Bell's vireo (LBV), indirect effects to which are a primary concern. Before incorporation of proper Project facility design/mitigation, this is considered a potentially significant impact.

Habitat along the lake edges could be adversely affected if placed adjacent to residences and thereby experiencing a greater likelihood of disruption in terms of residents and residential uses affecting biological resources. Project design proposes habitat and wildlife conservation areas for areas adjacent to more complementary open space uses. Edgewater Project Phase 1 (2010 to 2011) will include habitat enhancement at Lakes 2 and 3, and restoration of a 30-acre grassland habitat area; Phase 2 (2012-2014) will include habitat enhancement at Lakes 4 and 5, and establishment of basin habitat at the two eastern debris/detention basins; and Phase 3 (2015-2019) will include habitat enhancement at Lake 1, and establishment of basin habitat at the western debris/detention basin. (The dates for Phases 1 through 3 are approximate. Should project features/facilities be established earlier or later than reflected above, habitat improvements would occur in conjunction with establishment of the related project features/facilities.) Project mitigation for biological resources also addresses the placement of active recreational facilities and thereby minimizes potential impacts on habitat. Impact on habitat from other Project uses should be less than significant.

Planned recreational uses within the Project area are addressed in the Prado Basin Master Plan, Chino Creek Integrated Plan, and Mill Creek Wetland Recreation Plan (see Section 4.8 of this Draft EIR for individual plan discussions). It can be concluded from the collective impact discussion which follows for these plans that implementation of the Edgewater Communities Project will not conflict with any of these cited regional plans.

Prado Basin Master Plan

The Prado Basin Master Plan (PBMP), providing guidance for the balanced use, development, and management of the natural and man-made resources of the Prado Dam Basin, provides conceptual guidance for recreation development for areas located primarily in upland portions of the Prado Basin. The Recreation Development Plan contained within the PBMP identifies a conceptual layout of equestrian and bike trails within the Prado Flood Control Basin, prepared by USACE with consideration of planning efforts by related City and County jurisdictions. The City of Chino's Preserve Specific Plan Conceptual Parks and Schools Plan, Bicycle Plan, and Equestrian Plan (Exhibits 4.14-1 through 4.14-3) provide for the implementation of multi-purpose trails (with desired connection to existing and planned regional trails). The Amendment to The Preserve Specific Plan (prepared by PBR) modifies these three aspects of The Specific Plan to incorporate the Edgewater Communities Project, but would not adversely effect long-range implementation of these recreational facilities.

Chino Creek Integrated Plan (CCIP)

The study area for the Chino Creek Integrated Plan (CCIP) consists of five planning areas that span approximately 6,500 acres within the cities of Chino and Chino Hills. The proposed Project is within

the Mill Creek Planning Area. The CCIP identifies the Edgewater Communities Project as a future proposed use within the privately-owned Project site, and notes Project potential to provide an opportunity for community connection with Mill Creek as a valuable natural and recreational resource.

Mill Creek Wetland Recreation Plan

The Mill Creek Wetland Recreation Plan (MCWRP), proposed by the City of Ontario and the County of San Bernardino, is a plan to construct a 200-acre wetland recreation plan that consists of a regional natural treatment system designed to provide water quality protection from first flush storm water and urban runoff from portions of the Cucamonga Creek and Mill Creek watersheds before discharge into the Prado Basin. The MCWRP plan area lies within the Cucamonga Channel and Mill Creek watersheds, and appears to extend into the easternmost portion of the Project site, where Mill Creek meanders within the site and along the easternmost boundary. The MCWRP would also conserve natural open space for recreation as well as habitat restoration and ecological protection. The Mill Creek proposal is also identified in the CCIP for the Mill Creek Planning Area. Implementation of the Edgewater Communities Project, with open space natural and recreational uses located along and adjacent to Mill Creek, does not appear to be in conflict with the City of Ontario/County of San Bernardino's proposal for Mill Creek.

Level of Significance Before Mitigation

Potentially significant. [CEQA Recreation Threshold 14(b), relating to potential impact of recreational facilities on biological resources along Mill Creek]

Mitigation Measures

Implement Mitigation Measure BR-6, which imposes restrictions on facilities and uses within the OS-R area and for reconstructed wetlands.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.14-3:	Implementation of the Project will contribute to a significant adverse cumulative impact on recreational facilities.

Impact Analysis

The proposed Project as well as other development within the City of Chino, Ontario, and the Eastvale area of Riverside County (see Table 3-2 and Exhibit 3-14) involve development that could potentially result in impacts to recreation. Implementation of the proposed Project would increase recreational facilities within the Project site and provide opportunity for community connection with Mill Creek. The proposed Project would not conflict or interfere with ongoing regional recreation planning. However, the Project park requirement will not be met. Consequently, there could be long-term adverse impacts on recreation as a result of the proposed Project, based on the park acreage

deficiency. Implementation of the Edgewater Communities Project will contribute to a significant adverse cumulative impact on recreational facilities.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

Compliance with City park requirements are required. Project design does not allow the Project park requirements to be met and no mitigation measures are currently available.

Level of Significance After Mitigation

Significant.

4.14.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.14-3 below, provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.14-3: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Recreation

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
Project does not comply with standard development requirement.	PS-PR-1. Provision of park and recreational facilities according to City standards outlined in Chapter 18.04, "Land Dedication Requirements Generally."	Project does not comply. Project is in conflict with The Preserve EIR and City park standard.
Project Traffic and Access Control Plan (as required by Project Mitigation Measure AQ-4 ¹) and drainage controls will assure compliance.	PS-PR-2. Prado Regional Park and Lake, addressing traffic, access control, and safety needs of Prado Regional Park facilities.	Project will comply. No conflict between The Preserve EIR and Project.
Notes: ¹ Project Mitigation Measure AQ-4 as contained in EIR Section 4.3, Air Quality, and Appendix C, Air Quality Analysis states: Prior to Project construction, the Project proponent shall provide a traffic control plan that would describe in detail safe detours around the Project construction site and provide temporary traffic control (i.e., flag person) during demolition debris transport and other construction related truck hauling activities.		

4.15 - Transportation and Traffic

4.15.1 - Introduction

This section describes the existing setting for transportation and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Traffic Impact Analysis prepared in November 2007 by Urban Crossroads, included in this EIR as Appendix J.

Comment letters on the Notice of Preparation of the EIR for the Edgewater Communities, contained in Appendix A, that addressed transportation and traffic were received by the City of Chino from SCAG and City of Chino Hills. SCAG requested a consistency analysis of the Project with 2004 Regional Transportation Plan goals and policies (contained in Section 5.9, Land Use and Planning, of this EIR). The City of Chino Hills requested evaluation of Project traffic on intersections in Chino Hills. The Project Study Area includes intersections within the City of Chino Hills, which were analyzed during the Project Traffic Impact Analysis.

4.15.2 - Existing Conditions

Project Study Area

The Project site is within The Preserve Specific Plan area within the City of Chino (see Exhibit 3-1). The Preserve Specific Plan currently designates the Project site for Open Space-Recreational (OS-R), Agricultural and Open Space-Natural (AG/OS-N), Open space-Natural (OS-N), and Estate Residential (ER) land uses.

The Traffic Impact Analysis analyzed the following major roadways located in the vicinity of the Project site:

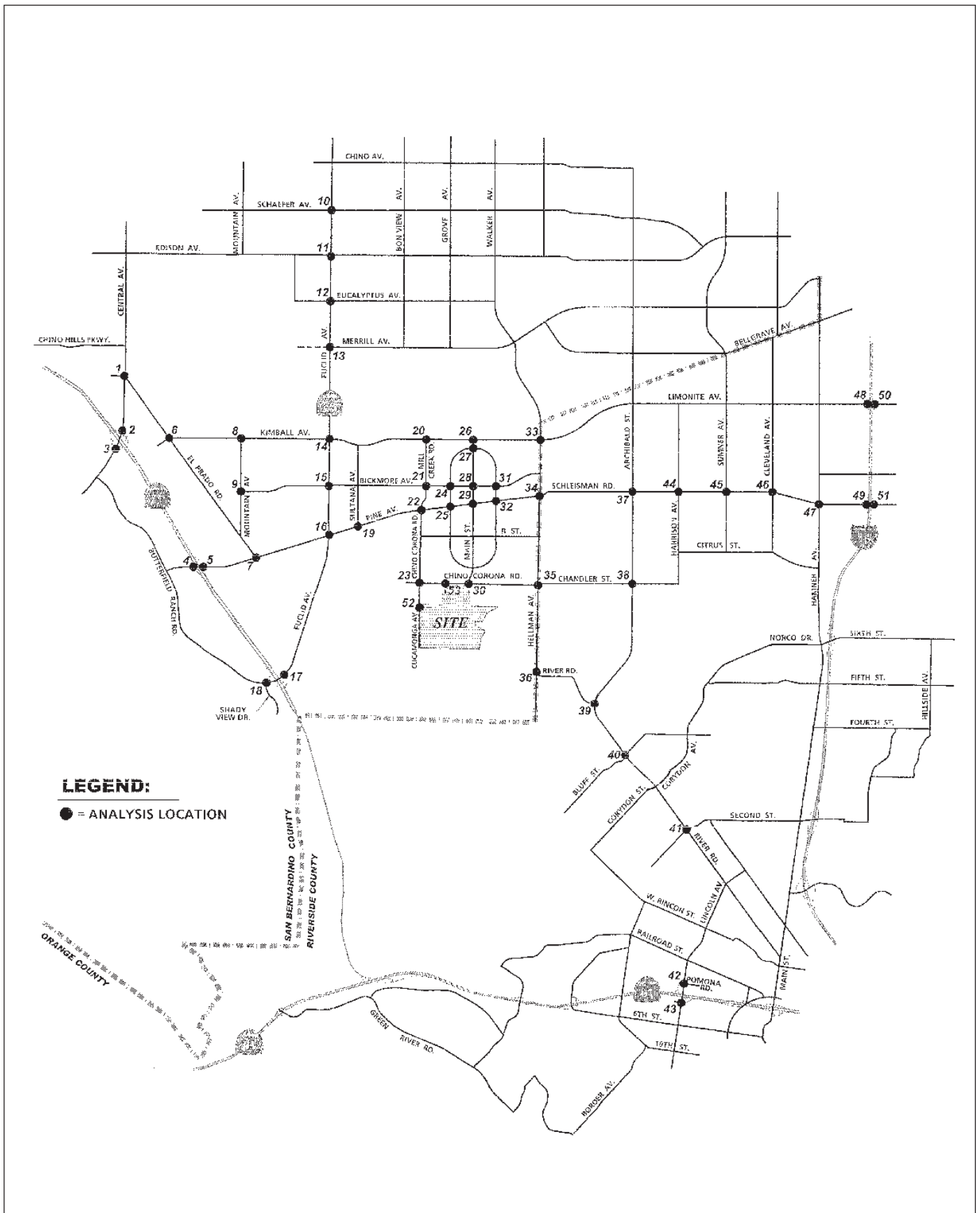
- Euclid Avenue - designated as State Route 83, under the jurisdiction of CalTrans. Euclid Avenue provides a direct connection to SR-71 and the 60 Freeway. North of Pine Avenue, Euclid Avenue is planned to contain eight lanes. South of Pine Avenue, Euclid Avenue is planned to contain six lanes.
- Pine Avenue - designated as a major arterial; planned to contain six lanes with a minimum 130-foot right-of-way and a curb-to-curb width of 90 feet, including a 14-foot landscape median. Shared bicycle lanes (Class I) and pedestrian paths are to be provided. Pine Avenue is an east/west arterial that connects SR-71 and the I-15 in Riverside County.
- Hellman Avenue - a north/south major arterial with five separate roadway sections. Each section will have four travel lanes with a varying right-of-way from 114 feet to 88 feet.
- Kimball Avenue - an east/west major arterial with five separate roadway sections. Each section is to have four travel lanes with a varying right-of-way from 114 feet to 88 feet.

- Bickmore Avenue - an east/west local collector. Between Euclid and Bon View Avenues, Bickmore will have a 94 foot right-of-way, a paseo and one transit lane. Between Bon View and Main Street, Bickmore will have a 76 foot right-of-way. Between Walker and Hellman Avenues, Bickmore will have a 66 foot right-of-way.
- Chino Corona Road - an east/west local collector planned for a 66 foot right-of-way.
- Cucamonga Avenue - a north/south local collector planned for a 66 foot right-of-way between Kimball and Pine Avenues, and a local collector planned for an 83 foot right-of-way with paseo between Pine Avenue and Chino Corona Road.
- River Road - a northwest/southeast major arterial planned for an 118 foot right-of-way, as designated by the Riverside County General Plan Circulation Element.
- Schleisman Road - an east /west urban arterial planned for a 152 foot right-of-way, as designated by the Riverside County General Plan Circulation Element.

Pursuant to discussion with City of Chino staff, the following study area intersections, located in the County of San Bernardino, County of Riverside, and along the border between the two counties, are analyzed within the Urban Crossroads Traffic Impact Analysis (see Exhibit 4.15-1). Intersections were selected using the San Bernardino Congestion Management Program (CMP) traffic study guideline criteria.

City of Chino:

- Central Avenue (NS) at:
 1. El Prado Road (EW)
 2. State Route (SR-) 71 Freeway Northbound Ramps (EW)
 3. SR-71 Freeway Southbound Ramps (EW)
- SR-71 Freeway Southbound Ramps (NS) at:
 4. Pine Avenue (EW)
- SR-71 Freeway Northbound Ramps (NS) at:
 5. Pine Avenue (EW)
- El Prado Road (NS) at:
 6. Kimball Avenue (EW)
 7. Pine Avenue (EW)
- Mountain Avenue (NS) at:
 8. Kimball Avenue (EW)
 9. Bickmore Avenue (EW)



Source: Urban Crossroads, November 2007.



Not to scale

Michael Brandman Associates

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Exhibit 4.15-1 Study Area Intersections

EDGEWATER COMMUNITIES • CITY OF CHINO
DRAFT ENVIRONMENTAL IMPACT REPORT

- Euclid Avenue (SR-83) (NS) at:
 - 10. Schaefer Avenue (EW)
 - 11. Edison Avenue (EW)
 - 12. Eucalyptus Avenue (EW)
 - 13. Merrill Avenue (EW)
 - 14. Kimball Avenue (EW)
 - 15. Bickmore Avenue (EW)
 - 16. Pine Avenue (EW)
 - 17. SR-71 Freeway Northbound Ramps (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - 18. SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW)
- Sultana Avenue (NS) at:
 - 19. Pine Avenue (EW) [Future intersection]
- Mill Creek Road (NS) at:
 - 20. Kimball Avenue (EW)
 - 21. Bickmore Avenue (EW)
- Chino Corona Road / Mill Creek Road (NS) at:
 - 22. Pine Avenue (EW)
- Cucamonga Avenue (NS) at:
 - 23. Chino Corona Road (EW)
 - 52. Project Site Access Road (EW) [Future Intersection]
- West Preserve Loop (NS) at:
 - 24. Bickmore Avenue (EW)
 - 25. Pine Avenue (EW)
- North West Project Site Access Road (NS) at:
 - 53. Chino Corona Road (EW) [Future Intersection]
- Main Street (NS) at:
 - 26. Kimball Avenue (EW)
 - 27. Preserve Loop (EW)
 - 28. Bickmore Avenue (EW) [Future Intersection]
 - 29. Pine Avenue (EW) [Future intersection]
- Main Street/North East Project Site Access Roadway (NS) at:
 - 30. Chino Corona Road (EW) [Future intersection]
- East Preserve Loop (NS) at:
 - 31. Bickmore Avenue (EW)
 - 32. Pine Avenue (EW)

Counties of San Bernardino/Riverside:

- Hellman Avenue (NS) at:
 - 33. Kimball Avenue/Limonite Avenue (EW) [Future Intersection]
 - 34. Pine Avenue/Schleisman Road (EW)
 - 35. Chino Corona Road/Chandler Street (EW)
 - 36. River Road (EW)

County of Riverside:

- Archibald Street (NS) at:
 - 37. Schleisman Road (EW)
 - 38. Chandler Street (EW)
 - 39. River Road (EW)
- River Road (NS) at:
 - 40. Bluff Street (EW)
 - 41. Country Club Avenue/Second Street (EW)
- Lincoln Avenue (NS) at:
 - 42. Pomona Road / SR-91 Freeway Westbound Ramps (EW)
 - 43. SR-91 Freeway Eastbound Ramps (EW)
- Harrison Avenue (NS) at:
 - 44. Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - 45. Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - 46. Schleisman Road (EW)
- Hamner Avenue (NS) at:
 - 47. Schleisman Road (EW)
- Interstate (I-15) Freeway Southbound Ramps (NS) at:
 - 48. Limonite Avenue (EW)
 - 49. Schleisman Road (EW)
- I-15 Freeway Northbound Ramps (NS) at:
 - 50. Limonite Avenue (EW)
 - 51. Schleisman Road (EW)

Level of Service

The current technical guide to the evaluation of traffic operations is the 2000 Highway Capacity Manual (HCM, Transportation Research Board Special Report 209). The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate Level of Service (LOS) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or

uninterrupted. The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS “A” represents free flow; Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS “B” is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS “C” is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS “D” represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS “E” represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS “F” is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

Definition of Deficiency

The following definitions of deficiencies have been developed in accordance with the City of Chino, County of San Bernardino CMP, and County of Riverside requirements.

The definition of an intersection deficiency has been obtained from the City of Chino General Plan. The City of Chino General Plan states that peak hour intersection operations of LOS “D” or better are generally acceptable. Therefore, any City of Chino intersection operating at LOS “E” or LOS “F” is considered deficient. Analysis per lane movement (not by average approach) for any movement that goes from LOS D to LOS E/F is also considered as potential Project responsibility for mitigation.

For the County of Riverside, LOS “C” must be maintained along all County maintained roadways and state highways. As an exception, LOS “D” may be permitted in Community Development areas, at the intersections of any combination of secondary highways, major highways, arterials, urban arterials, expressways, conventional state highways or freeway ramp intersections. All Riverside County analysis locations are located within Community Development areas.

The CMP is a State of California mandated program implemented in the Project area by the San Bernardino Associated Government (SANBAG). The purpose of the CMP is to provide comprehensive long-range traffic planning on a regional basis. Per CMP direction, state controlled

facilities (state highways, freeway ramp intersection, etc.) are subject to local jurisdiction traffic operations requirements with no greater than a 45 second average stopped delay per vehicle during peak hour operations (middle of LOS “D” range).

Existing intersection level of service (“LOS”) calculations are based upon manual AM and PM peak hour turning movement counts conducted specifically for Urban Crossroads, Inc. The AM peak hour traffic volumes were determined by counting the two-hour period from 7:00 to 9:00 AM on a typical weekday. Similarly, the PM peak hour traffic volumes were identified by counting the two-hour period from 4:00 to 6:00 PM on a typical weekday. Per City direction, the counts include the vehicle classification as shown below per the requirements of San Bernardino Associated Governments (SANBAG) and the San Bernardino CMP.

- 6 Passenger cars
- Buses/recreational vehicles (2-axle)
- 3-axle heavy vehicles
- 4-axle heavy vehicles

Existing peak hour traffic operations were evaluated for both the AM and PM peak hours of traffic at the study area intersections. The results of this analysis are summarized in Table 4.15-1. As indicated in Table 4.15-1, all of the study area intersections currently operate at acceptable levels of service during the peak hours except for the following intersections:

- Euclid Avenue (SR-83) (NS) at:
 - Bickmore Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - SR-71 Freeway South bound Off-Ramp/Shady View Drive (EW)
- Hellman Avenue (NS) at:
 - Pine Avenue/Schleisman Road (EW)
 - Chino Corona Road/Chandler Street (EW)
- Archibald Street (NS) at:
 - River Road (EW)

Table 4.15-1: Intersection Analysis for Existing Conditions

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)		Level of Service		
		North-Bound			South-Bound			East-Bound			West-Bound							
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
Central Avenue (NS) at:																		
1	El Prado Road (EW)	TS	1	2	1	1	3	0	1	1	1	1.5	0.5	1>	29.7	22.7	C	C
2	SR-71 Fwy. NB Ramps (EW)	TS	0	3	1>>	0	3	1>>	0	0	0	2	0	1	12.2	11.3	B	B
3	SR-71 Fwy. SB Ramps (EW)	TS	0	3	1>>	0	3	1>>	2	0	1	0	0	0	16.5	32.3	B	C
SR-71 Fwy. SB Ramps (NS) at:																		
4	Pine Avenue (EW)	TS	0	0	0	0.5	0.5	1	0	1	1	1	2	0	14.6	13.3	B	B
SR-71 Fwy. NB Ramps (NS) at:																		
5	Pine Avenue (EW)	AWS	1.5	0.5	0	0	0	0	2	0	0	0	0	0	9.7	8.7	A	A
El Prado Road (NS) at:																		
6	Kimball Avenue (EW)	TS	1	1	1	1	1	1	1	1	0	0.5	0.5	1>	18.1	21.3	B	C
Mountain Avenue (NS) at:																		
8	Kimball Avenue (EW)	TS	1	0	1	0	0	0	0	2	0	1	2	0	8.0	9.6	A	A
9	Bickmore Avenue (EW)	CSS	0	1	0	1	1	0	0	0	0	1	0	1	8.9	8.5	A	A
Euclid Avenue (SR-83) (NS) at:																		
10	Schaefer Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	0.5	0.5	1	21.9	23.5	C	C
11	Edison Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	35.9	24.5	D	C
12	Eucalyptus Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	22.3	23.9	C	C
13	Merrill Avenue (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	27.7	16.9	C	B
14	Kimball Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	0.5	0.5	1	26.6	22.6	C	C
15	Bickmore Avenue (EW)	CSS	1	1	1	1	1	1	0.5	0.5	1	1	1	1	--4	99.5	F	F
16	Pine Avenue (EW)	TS	1	2	1	1	2	1	0.5	0.5	1>>	0.5	0.5	1	35.1	28.8	D	C
17	SR-71 Fwy. NB Ramps (EW)	TS	0	2	1>>	1	2	0	0	0	0	2	0	1>>	9.5	14.9	A	B
Euclid Avenue (SR-83)/Butterfield Ranch Rd. (NS) at:																		
18	SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW)	TS	0	2	1	1	2	1>>	1.5	0.5	1	1	0	1>	--4	30.7	F	C

Table 4.15-1 (Cont.): Intersection Analysis for Existing Conditions

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)		Level of Service		
		North-Bound			South-Bound			East-Bound			West-Bound							
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
Mill Creek Road (NS) at:																		
20 Kimball Avenue (EW)	CSS	1	0	1	0	0	0	0	1	1	0	1	1	0	13.2	10.0	B	A
21 Bickmore Avenue (EW)	AWS	0	1	0	1	1	0	0	1	0	0	0	1	0	10.0	7.7	B	A
Chino Corona Rd./Mill Creek Rd. (NS) at:																		
22 Pine Avenue (EW)	TS	1	0	1	0	0	0	0	1	1>>	1	1	1	0	15.1	13.8	B	B
Cucamonga Avenue (NS) at:																		
23 Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	1	0	0	0	1	0	10.6	14.2	B	B
West Preserve Loop (NS) at:																		
24 Bickmore Avenue (EW)	AWS	0.5	0.5	0	0	1	0	0	1	0	0	0	0	0	11.4	7.4	B	A
25 Pine Avenue (EW)	TS	0	0	0	1	0	1	1	1	0	0	0	1	1	4.2	5.5	A	A
Main Street (NS) at:																		
26 Kimball Avenue (EW)	AWS	1	0	1	0	0	0	0	1	1	1	1	1	0	8.4	7.7	A	A
27 Preserve Loop (EW)	AWS	0	1	0	0.5	0.5	1	1	1	0	1	1	1	0	7.8	7.5	A	A
Hellman Avenue (NS) at:																		
34 Pine Avenue/Schleisman Road (EW)	CSS	0	1	0	0	0	0	0	1	0	0.5	0.5	0	0	--4	21.5	F	C
35 Chino Corona Road/Chandler Street (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	0	--4	18.6	F	C
36 River Road (EW)	CSS	1	0	1	0	0	0	0	1	0	0.5	0.5	0	0	12.9	12.6	B	B
Archibald Street (NS) at:																		
37 Schleisman Road (EW)	TS	1	1	1	1	1	0	1	1	1	1	1	1	0	51.2	35.0	D	D
38 Chandler Street (EW)	TS	1	2	1	1	2	0	1	2	1	1	1	2	1	36.2	34.5	D	C
39 River Road (EW)	CSS	1	1	0	0	1	1	1	0	1	0	0	0	0	--4	35.7	F	E
River Road (NS) at:																		
40 Bluff Street (EW)	TS	1	1	0	1	2	0	0.5	0.5	1	0.5	0.5	1	1	10.5	8.4	B	A

Table 4.15-1 (Cont.): Intersection Analysis for Existing Conditions

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)			Level of Service	
		North-Bound				South-Bound				East-Bound				West-Bound			AM	PM
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R		
41 Country Club Lane/Second Street (EW)	TS	1	2	1	1	1	1	1	1	1	1	1	0				26.5	27.4
Lincoln Avenue (NS) at:																		
42 Pomona Road (EW)	TS	2	2	0	1	2	0	1	0.5	1.5	1	1	0				23.1	23.7
43 SR-91 Fwy. EB Ramps (EW)	TS	1	2	1	1	2	0	0	1	0	0.5	0.5	1				25.5	21.0
Harrison Avenue (NS) at:																		
44 Schleisman Road (EW)	AWS	1	1	1	0	1	0	0.5	0.5	1	0.5	0.5	1				15.3	12.0
Sumner Avenue (NS) at:																		
45 Schleisman Road (EW)	AWS	0.5	0.5	0	0	1	1	1	0	1	0	0	0				27.2	11.1
Cleveland Avenue (NS) at:																		
46 Schleisman Road (EW)	AWS	0	1	0	0.5	0.5	0	0	0	0	1	0	1				18.8	8.6
Hamner Avenue (NS) at:																		
47 Schleisman Road (EW)	TS	1	2	1	1	2	1	1	1	0	1	1	0				33.8	33.6
I-15 Fwy. SB Ramps (NS) at:																		
48 Limonite Avenue (EW)	TS	0	0	0	1	1	1	0	2	1	2	2	0				19.6	18.3
I-15 Fwy. NB Ramps (NS) at:																		
50 Limonite Avenue (EW)	TS	1	1	1	0	0	0	2	2	0	0	2	1				16.4	26.9

Notes:

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left

T = Through

R = Right

>> = Free Right Turn

> = Right Turn Overlap.

² Delay and level of service calculated using the following analysis software: Traffic, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

AWS = All Way Stop

CSS = Cross Street Stop

⁴ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F"

Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.

Existing Traffic Operations

Existing peak hour traffic operations were evaluated for both the AM and PM peak hours of traffic at the study area intersections. The results of this analysis, along with the existing intersection geometrics and traffic control devices at the analysis locations, are summarized in Table 4.15-1. As indicated in this table, all of the study area intersections operate at acceptable LOS during the peak hours except for the following intersections:

- Euclid Avenue (SR-83) (NS) at:
 - Bickmore Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW)
- Hellman Avenue (NS) at:
 - Pine Avenue/Schleisman Road (EW)
 - Chino Corona Road/Chandler Street (EW)
- Archibald Street (NS) at:
 - River Road (EW)

Traffic signal warrant analysis indicates that the following intersections appear to currently warrant a traffic signal:

- Euclid Avenue (SR-83) (NS) at:
 - Bickmore Avenue (EW)
- Hellman Avenue (NS) at:
 - Pine Avenue/Schleisman Road (EW)
- Archibald Street (NS) at:
 - River Road (EW)
- Harrison Avenue (NS) at:
 - Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - Schleisman Road (EW)

Additional signal warrant analysis was conducted for intersections potentially requiring traffic signal installation. The additional analysis indicates that no other traffic signals are currently warranted.

Regulatory Setting

City of Chino General Plan

The City of Chino General Plan contains the following circulation goals and policies that are applicable to the proposed Project:

Table 4.15-2: Circulation Element Goals and Policies Addressing Transportation and Traffic

Reference	Description
Goal G3-1	Transportation Facility Improvement - Plan, develop, and maintain street improvements, including landscaping, to ensure adequate future capacity to accommodate traffic demands.
Policy P3-1.1	Road Location and Size - Ensure existing roads and future roadway facilities are appropriately located and sufficiently sized and aligned to accommodate future traffic demand at a LOS C or better with the exception of freeway ramps. While dedication of ultimate rights-of-way may be required with any development, the physical improvements may be delayed until such time as the actual need for widening occurs and a sufficient number of parcels are assembled to provide for a feasible roadway geometry. If such physical improvements are delayed, the City may require the developer to deposit his/her fair share of the cost of the future improvements.
Policy P3-1.2	Regional Coordination - The City should encourage coordinated transportation planning through an active participatory role with Caltrans, SANBAG, SCAG, and surrounding jurisdictions.
Policy P3-1.3	Financial Responsibility - Ensure that construction and maintenance of all transportation facilities is fully funded by the development creating the need. Ensure that each new development funds the mitigation measures resulting from its own circulation impacts.

The Preserve Specific Plan and EIR

Conclusions on the impacts on transportation and traffic from implementation of The Preserve Specific Plan were presented in the Specific Plan EIR. The EIR found that, even after mitigation, the Specific Plan would result in significant unavoidable impacts to local intersections and roadways and on freeway segments at the project level, and contribute to significant and cumulative adverse traffic conditions at Plan Buildout.

4.15.3 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to transportation and traffic are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

- a.) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- b.) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- c.) 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?
- d.) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

- e.) Result in inadequate emergency access?
- f.) Result in inadequate parking capacity?
- g.) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

4.15.4 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Table 4.15-3 displays a comparison of traffic levels under The Preserve Specific Plan (2003) and as amended for the Edgewater Communities Project (March 2008).

Table 4.15-3: Comparison of The Preserve Specific Plan Within Project Site and The Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site	The Preserve Specific Plan as amended for Edgewater Communities Project	Net Change
Total developed acreage devoted to residential and ancillary uses	3.65 acres	142.09 acres	+138.44 acres
Traffic Levels	67 trip-ends per day (9.57 trip ends per day per single-family detached house x 7 estate residential units) ¹ plus nominal trip-ends associated with OS-R, AG/OS-N and OS-N existing land use designations.	8,736 trip-ends per day	+8,669 trip-ends per day
Notes: ¹ The trip generation rate of 9.57 trip ends per day per single-family detached housing unit is taken from Table 2-1 in the Urban Crossroads Traffic Impact Analysis (November 2007), as drawn from the Institution of Transportation Engineers (ITE) Trip Generation (7 th Edition, 2003) manual. Seven estate residential units are the maximum allowed under Project site existing Specific Plan land use designations. Using the trip generation rate of 9.57 trip ends per single-family detached housing unit x 7 estate residential units, the estate residential component under existing Specific Plan land use designations would generate 67 trip ends. Source: PBR November 2006, Urban Crossroads November 2007, and Michael Brandman Associates, June 2008.			

Interim Year (2019) and General Plan Buildout (Post-2030) Analysis

A full discussion of methodology for the Urban Crossroads Traffic Impact Analysis is contained in Appendix J. A limited discussion of methodology is presented below.

Future year analysis for the Project includes future conditions at the time of anticipated full Project occupancy (typically referred to as Interim Year conditions, which in this case is 2019) and at General Plan Buildout (Post-2030) conditions, determined as such because the proposed Project is not consistent with the City's General Plan and requires a Specific Plan Amendment. Both of these future conditions are analyzed without and with the proposed Project.

The General Plan Buildout (Post-2030) ADT volume forecasts were developed by Urban Crossroads using a growth increment process based on volumes predicted by the City of Chino traffic model. The growth increment for General Plan Buildout (Post-2030) conditions on each roadway segment is the increase in City of Chino traffic model volume from existing to General Plan Buildout (Post-2030) conditions.

The initial City of Chino traffic model data was further refined by Urban Crossroads to generate the final output volumes used in the Traffic Impact Analysis. Existing conditions model roadway network volumes were modified to accurately represent the existing roadway network. Features including the Pine Avenue connection from El Prado Road to the Pine Avenue/SR-71 interchange and the extension of Main Street north of Kimball Avenue were removed. In addition, the level of traffic analysis and roadway network detail included in the City of Chino traffic model for the Eastvale area was not suitable for study area intersection analysis. Therefore, manual changes to the roadway network and traffic volume distribution for the Eastvale area were performed.

In typical traffic impact analyses conducted for development projects in the City of Chino, the method for determining Interim Year (2019 Buildout Year) volumes is the manual cumulative build-up approach. Interim Year traffic volumes are estimated by factoring existing traffic volumes to the Interim Year by way of an ambient traffic growth factor and then superimposing the traffic volumes associated with other developments which have been approved, built but not occupied, or are being processed concurrently. This procedure has not been applied because of the large study area and resulting number of cumulative projects.

A socio-economic growth interpolation approach has been used to estimate the 2019 Interim Year traffic volumes. The City of Chino and surrounding jurisdictions were contacted during Traffic Impact Analysis preparation in order to determine all of the projects planned within the study area that would have an impact on future traffic volumes at the study area intersections. Seventy-nine other identified developments were identified and are shown in Exhibit 3-8 and Table 3-2 of this EIR (Section 3). The land use information for these other development projects is then converted into socioeconomic data (SED). The difference between the existing SED and General Plan Buildout (Post-2030) SED represents the SED growth expected between these two conditions.

A weighting factor has been applied to the SED growth in order to interpolate, resulting in a single SED growth mass. Urban Crossroads determined that 79 percent of the SED growth expected in Subarea 2 by General Plan (Post 2030) conditions is planned to be in place by 2019.

Traffic Increase and Level of Service Standards

Impact 4.15-1:	The Project could cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system. The Project could individually exceed a level of service standard established by the county congestion management agency for designated roads or highways. [CEQA Transportation Thresholds 15(a) and 15(b)]

Impact Analysis

Project-generated traffic and associated impacts have been calculated based on trip generation, trip distribution, and trip assignment. The procedural steps involved in Project traffic estimation and prediction of associated impacts are described in detail below.

Project Trip Generation

Trip-generation statistics, published in the Institute of Transportation Engineers (ITE) Trip Generation manual (7th Edition, 2003), for similar land uses as those proposed were used to develop traffic characteristics for the proposed Project. ITE Land Use Code (LUC) 814-Specialty Retail, with gross floor area equal to 6.5 thousand square feet (TSF), has been used to conservatively represent the museum land use as the ITE Trip Manual does not include data for museum uses. The following additional codes were used to determine the trips generated by each land use type: 1) ITE LUC 210-Single-Family Detached Housing; 2) ITE LUC 230-Residential Condominium/Townhouse; 3) ITE LUC 560-Church, with gross floor area equal to 15.2 TSF; and 4) ITE LUC 411-City Parks, with acreage equal to 15 acres. Table 4.15-4 presents the trip generation rates used to generate the peak hour and daily traffic volumes for the Project. Per the ITE Trip Generation manual, the weekday trip generation rates for churches include day care or extended care activities during the week.

Higher rates are used to calculate the traffic characteristics in order to provide a more conservative analysis of Project impacts. No trip generation estimates have been included for the open space portions of the Edgewater Communities Project. The open space areas, which will potentially include equestrian and walking paths, are passive areas for use by residents and were assumed by Urban Crossroads not to generate vehicular traffic to and from the Project site.

Table 4.15-4 is a summary of the trip generation for the proposed Project. Residential development within the Edgewater Communities Project is anticipated to generate a total of 8,736 trip-ends per day, with 694 vehicles per hour (VPH) during the AM peak hour and 864 VPH during the PM peak hour. The higher total peak hour trips generated by the Project occur in the PM peak hour.

Table 4.15-4: Project Trip Generation

Land Use	ITE Code	Quantity	Units ¹	Peak Hour						Daily
				AM			PM			
				In	Out	Total	In	Out	Total	
Single-Family Detached Housing	210	537	DU	101	302	403	342	201	543	5,139
Residential Condo/Townhouse	230	537	DU	40	196	236	187	92	279	3,147
Museum/Retail	814	6.5	TSF	21	23	44	18	14	32	288
Church	560	15.2	TSF	6	5	11	5	5	10	138
Park	411	15.0	AC	--	--	--	--	--	--	24
Project Total				168	526	694	552	312	864	8,736
Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.										

Project Trip Distribution and Assignment

A 2019 Project buildout year Project trip distribution pattern was determined in part by the geographical location of the site, the location of surrounding uses, the proximity to the regional freeway system, local traffic patterns, and known future development. Additionally, this analysis assumes certain major roadway improvement projects are funded and expected to be completed to full occupancy by 2019. They include the extension of Pine Avenue east of Euclid Avenue to the SR-71 Freeway, and the extension of Schleisman Road east of Sumner Road to a new interchange with the I-15 Freeway. Approximately 46 percent of Project-related traffic will be distributed to and from the west of the site via Pine Avenue. The remaining 54 percent of Project-related traffic is distributed as follows: 21 percent oriented to and from the north on Cucamonga Avenue (Mill Creek Road); 4 percent to and from the north on Hellman Avenue; 14 percent to and from the east on Chandler Street; 10 percent to and from the south on Hellman Avenue/River Road; and 5 percent to and from various areas within The Preserve.

Future Traffic Operations Analysis - Without and With Project Traffic Conditions

Year 2019 buildout was analyzed in the Traffic Impact Analysis for two scenarios - without the Project and with the Project.

2019 (Interim Year) Without Project Conditions

The following intersections will operate at unacceptable levels without the Project, as shown in Table 4.15-5:

- SR-71 Freeway NB Ramps (NS) at:
 - Pine Avenue (EW)
- El Prado Road (NS) at:
 - Pine Avenue (EW)

- Euclid Avenue (SR-83) (NS) at:
 - Edison Avenue (EW)
 - Eucalyptus Avenue (EW)
 - Merrill Avenue (EW)
 - Kimball Avenue (EW)
 - Bickmore Avenue (EW)
 - Pine Avenue (EW)
- Euclid Avenue (SR-83) / Butterfield Ranch Road (NS) at:
 - SR-71 Freeway SB Off-Ramp/Shady View Drive (EW)
- Mill Creek Road (NS) at:
 - Kimball Avenue (EW)
- Chino Corona Road/Mill Creek Road (NS) at:
 - Pine Avenue (EW)
- Main Street (NS) at:
 - Pine Avenue (EW)
- Hellman Avenue (NS) at:
 - Kimball Avenue (EW)
 - Pine Avenue/Schleisman Road (EW)
 - Chino Corona Road/Chandler Street (EW)
- Archibald Street (NS) at:
 - Schleisman Road (EW)
 - River Road (EW)
- Harrison Avenue (NS) at:
 - Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - Schleisman Road (EW)
- I-15 Freeway SB Ramps (NS) at:
 - Schleisman Road (EW)
- I-15 Freeway NB Ramps (NS) at:
 - Schleisman Road (EW)

Improvements have been identified that will provide acceptable traffic operations at each of the deficient intersections under 2019 Without Proposed Project conditions.

Delay ² (Secs.)		Level of Service	
M	PM	AM	PM
5	22.9	C	C
2	10.7	B	B
4	23.2	B	C
1	21.6	D	C
-- ⁴	F	F	F
3	10.7	C	B
3	22.5	B	C
67.4	F	F	F
5	23.9	C	C
10.7	A	A	B
11.0	B	B	B
5	31.7	C	C
33.4	F	C	C
5	40.4	D	D
-- ⁴	F	F	F
2	37.4	D	D
9.2	F	A	A
0	4.4	B	A

Table 4.15-5 (Cont.): Interim Year Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																		Delay ² (Secs.)				Level of Service			
		North-Bound				South-Bound				East-Bound				West-Bound													
		L	T	R		L	T	R		L	T	R		L	T	R		L	T	R	AM	PM	AM	PM			
14 Kimball Avenue (EW)	TS	1	2	1	1	1	2	1	1	1	1	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F								
- with improvements ⁶	TS	1	<u>3</u>	0	1	<u>3</u>	<u>1</u>	<u>2</u>	1	1	1	1	<u>1</u>	<u>1</u>	1	40.7	32.1	D	C								
15 Bickmore Avenue (EW)	CSS	1	1	1	1	1	1	1	0.5	0.5	1	1	1	1	1	-- ⁴	-- ⁴	F	F								
- with approved geometry	<u>TS</u>	1	<u>4</u>	<u>2</u>	<u>2</u>	<u>4</u>	1	<u>1</u>	<u>1</u>	<u>1</u>	1	<u>2</u>	0.5	<u>1.5</u>	<u>2</u>	21.6	27.8	C	C								
16 Pine Avenue (EW)	TS	1	2	1	1	2	1	0.5	0.5	1>>	0.5	0.5	1	0.5	0.5	-- ⁴	-- ⁴	F	F								
- with improvements ⁶	TS	1	2	<u>1>></u>	2	2	0	<u>1</u>	<u>2</u>	1>>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	1	39.7	34.1	D	C								
17 SR-71 Fwy. NB Ramps (EW)	TS	0	2	1>>	1	2	0	0	0	0	0	2	0	1>>	7.8	8.4	A	A									
Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:																											
18 SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW)	TS	0	2	1	1	2	1>>	1.5	0.5	1	1	0	1	0	1>	-- ⁴	20.5	F	C								
- with improvements ⁶	TS	0	<u>3</u>	1	<u>2</u>	2	1>>	1.5	0.5	1	1	0	1	0	<u>2</u>	25.8	17.9	C	B								
Sultana Avenue (NS) at:																											
19 Pine Avenue (EW)	CSS	0	0	0	0	1	0	1	1	0	0	1	0	1	0	13.7	21.8	B	C								
Mill Creek Road (NS) at:																											
20 Kimball Avenue (EW)	CSS	1	0	1	0	0	0	0	1	0	1	1	1	1	0	17.7	11.1	C	B								
- with improvements	<u>TS</u>	1	0	1	0	0	0	0	1	0	1	1	1	1	0	13.6	9.2	B	A								
21 Bickmore Avenue (EW)	AWS	0	1	0	1	1	0	0	1	0	0	1	0	1	0	10.9	9.2	B	A								
Chino Corona Road/Mill Creek Road (NS) at:																											
22 Pine Avenue (EW)	TS	1	1	0	1	1	1	1	1	1	1>>	1	1	1	0	41.6	-- ⁴	D	F								
- with improvements	TS	1	1	0	1	1	1	1	<u>2</u>	1	1	1	1	1	0	44.9	25.1	D	C								
Cucamonga Avenue (NS) at:																											
23 Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	1	0	11.7	17.8	B	C								
West Preserve Loop (NS) at:																											
24 Bickmore Avenue (EW)	AWS	0	1	0	0	1	0	0	1	0	0	0	1	1	0	12.8	8.9	B	A								
25 Pine Avenue (EW)	TS	0	1	0	1	1	1	1	1	0	1	1	1	1	0	31.2	18.6	C	B								

Table 4.15-5 (Cont.): Interim Year Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																Delay ² (Secs.)		Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound										
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM				
Main Street (NS) at:																					
26	Kimball Avenue (EW)	AWS	1	0	1	0	0	0	0	1	1	1	1	0	9.0	8.6	A	A			
27	Preserve Loop (EW)	AWS	0	1	0	0.5	0.5	1	1	1	0	1	1	0	8.5	8.4	A	A			
28	Bickmore Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	9.5	10.8	A	B			
29	Pine Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	57.1	-- ⁴	F	F			
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>2</u>	0	14.8	38.4	B	D			
30	Chino Corona Road (EW)	CSS	0	0	0	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	13.6	12.6	B	B			
East Preserve Loop (NS) at:																					
31	Bickmore Avenue (EW)	CSS	0	1	0	0	0	1	0	1	0	0	1	0	8.8	10.2	A	B			
32	Pine Avenue (EW) ⁷	CSS	0	1	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F			
Hellman Avenue (NS) at:																					
33	Kimball Avenue (EW)	CSS	0	1	0	0	0	1	0	1	0	0	1	0	17.0	37.4	C	E			
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	1	1	0	19.3	22.2	B	C			
34	Pine Avenue/Schleisman Road (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F			
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	29.0	28.7	C	C			
35	Chino Corona Road/Chandler Street (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	-- ⁴	-- ⁴	F	F			
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	<u>1</u>	0	<u>1</u>	1	0	24.5	31.8	C	C			
36	River Road (EW)	CSS	1	0	1	0	0	0	0	1	0	0.5	0.5	0	18.7	21.7	C	C			
Archibald Street (NS) at:																					
37	Schleisman Road (EW)	TS	1	1	1	1	1	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F			
	- with improvements	TS	1	1	1	1	2	0	1	1	1	1	2	0	38.5	43.9	D	D			
38	Chandler Street (EW)	TS	1	2	1	1	2	0	1	2	1	1	2	1	36.4	33.2	D	C			

Table 4.15-5 (Cont.): Interim Year Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																		Delay ² (Secs.)				Level of Service			
		North-Bound				South-Bound				East-Bound				West-Bound													
		L	T	R		L	T	R		L	T	R		L	T	R		AM	PM	AM	PM						
39 River Road (EW)	CSS	1	1	0		0	1	1	1	0	1	0	1	0	0	0		81.1	-- ⁴	F	F						
- with improvements	<u>TS</u>	<u>2</u>	1	0		0	1	1	1	0	1	1	0	0	0	0		25.4	37.8	C	D						
River Road (NS) at:																											
40 Bluff Street (EW)	TS	1	1	0		1	2	0	0.5	0.5	1	0.5	0.5	1	13.4	9.9	B	A									
41 Country Club Lane/Second Street (EW)	TS	1	2	1		1	2	1	1	1	1>	1	1	0	27.8	28.4	C	C									
Lincoln Avenue (NS) at:																											
42 Pomona Road. (EW)	TS	2	2	0		1	2	0	1	0.5	1.5>	1	1	0	26.6	26.2	C	C									
43 SR-91 Fwy. EB Ramps (EW)	TS	1	2	1		1	2	0	0	1	0	0.5	0.5	1	30.1	23.2	C	C									
Harrison Avenue (NS) at:																											
44 Schleisman Road (EW)	AWS	1	1	1		0	1	0	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F									
- with improvements	<u>TS</u>	1	1	1		<u>1</u>	1	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	34.8	33.4	C	C									
Sumner Avenue (NS) at:																											
45 Schleisman Road (EW)	AWS	0	1	0		0	1	1	1	0	1	0	1	0	-- ⁴	29.4	F	D									
- with improvements	<u>TS</u>	<u>1</u>	1	0		<u>1</u>	1	0	1	<u>1</u>	0	<u>1</u>	1	0	36.8	38.3	D	D									
Cleveland Avenue (NS) at:																											
46 Schleisman Road (EW)	AWS	0	1	0		0.5	0.5	0	0	1	0	1	1	0	-- ⁴	20.3	F	C									
- with improvements	<u>TS</u>	<u>1</u>	1	0		<u>1</u>	<u>1</u>	0	<u>1</u>	1	0	1	1	0	33.3	28.0	C	C									
Hamner Avenue (NS) at:																											
47 Schleisman Road (EW)	TS	1	2	1		1	2	1	1	1	0	1	1	0	34.9	38.4	C	D									
I-15 Fwy. SB Ramps (NS) at:																											
48 Limonite Avenue (EW)	TS	0	0	0		1	1	1	0	2	1	2	2	0	21.9	20.3	C	C									
I-15 Fwy. SB Ramps (NS) at:																											
49 Schleisman Road (EW)	<u>TS</u>	0	0	0		<u>1</u>	<u>0</u>	1	0	<u>1</u>	<u>1</u> >>	<u>2</u>	<u>1</u>	0	14.5	14.9	B	B									

Table 4.15-5 (Cont.): Interim Year Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)		Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
I-15 Fwy. NB Ramps (NS) at:																	
50 Limonite Avenue (EW)	TS	1	1	1	0	0	0	2	2	0	0	2	1	18.2	25.5	B	C
I-15 Fwy. NB Ramps (NS) at:																	
51 Schleisman Road (EW)	<u>TS</u>	<u>1</u>	0	<u>1</u>	0	0	0	<u>1</u>	<u>2</u>	0	0	<u>1</u>	<u>1</u>	13.3	13.7	B	B

Notes:

1

When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left

T = Through

R = Right

2

Delay and level of service calculated using the following analysis software: Traffic, Version 7.9 RI (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

3

TS = Traffic Signal

4

AWS = All Way Stop

5

-- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F"

6

Without improvements configuration reflects Pine Avenue extension to El Prado Road.

7

Pedestrians are assumed not to occur on every cycle.

Source:

Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.

2019 (Interim Year) With Proposed Project Conditions

The intersection operations analysis for 2019 With Proposed Project is summarized in Table 4.15-6. As shown in this table, improvements would be required as a result of the Project and other cumulative known development at the following locations to maintain an acceptable level of service for the 2019 With Proposed Project Condition.

- SR-71 Freeway Northbound Ramps (NS) at:
 - 5. Pine Avenue (EW)
- El Prado Road (NS) at:
 - 7. Pine Avenue (EW)
- Euclid Avenue (SR-83) (NS) at:
 - 11. Edison Avenue (EW)
 - 12. Eucalyptus Avenue (EW)
 - 13. Merrill Avenue (EW)
 - 14. Kimball Avenue (EW)
 - 15. Bickmore Avenue (EW)
 - 16. Pine Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - 18. SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW)
- Mill Creek Road (NS) at:
 - 20. Kimball Avenue (EW)
- Chino Corona Road / Mill Creek Road (NS) at:
 - 22. Pine Avenue (EW)
- Cucamonga Avenue (NS) at:
 - 23. Chino Corona Road (EW)
 - 52. Project Site Access Road (EW) [Future Intersection]
- Main Street (NS) at:
 - 29. Pine Avenue (EW) [Future intersection]
- Main Street/North East Project Site Access Roadway (NS) at:
 - 30. Chino Corona Road (EW) [Future intersection]

Counties of San Bernardino/Riverside:

Hellman Avenue (NS) at:

- 33. Kimball Avenue/Limonite Avenue (EW) [Future Intersection]
- 34. Pine Avenue/Schleisman Road (EW)
- 35. Chino Corona Road/Chandler Street (EW)

County of Riverside:

- Archibald Street (NS) at:
 - 37. Schleisman Road (EW)
 - 39. River Road (EW)
- Harrison Avenue (NS) at:
 - 44. Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - 45. Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - 46. Schleisman Road (EW)

Traffic Impact Analysis study area improvements identified for Without and With Proposed Project Conditions, and expected prior to Project occupancy, include the connection of Pine Avenue to the SR-71 Freeway, the connection of Schleisman Road to the I-15 Freeway and construction of a new interchange at this location, and various improvements associated with The Preserve ongoing development.

Table 4.15-6: Interim Year With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹														Level of Service			
		North-Bound			South-Bound			East-Bound			West-Bound			Delay ² (Secs.)					
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	
Central Avenue (NS) at:																			
1	El Prado Road (EW)	TS	1	2	1	1	1	3	0	1	1	1	1.5	0.5	1>	30.8	23.5	C	C
2	SR-71 Fwy. NB Ramps (EW)	TS	0	3	1>>	0	3	1>>	0	0	0	0	2	0	1	11.2	10.7	B	B
3	SR-71 Fwy. SB Ramps (EW)	TS	0	3	1>>	0	3	1>>	0	1	1	0	0	0	0	18.4	23.2	B	C
SR-71 Fwy. SB Ramps (NS) at:																			
4	Pine Avenue (EW)	TS	0	0	0	0.5	0.5	1	1	0	1	1	1	2	0	42.1	23.2	D	C
SR-71 Fwy. NB Ramps (NS) at:																			
5	Pine Avenue (EW) ⁵	AWS	1	0	1	0	0	0	0	<u>1</u>	<u>1</u>	0	0	1	1	-- ⁴	-- ⁴	F	F
	- with improvements	<u>TS</u>	1	0	1	0	0	0	0	1	1	0	0	1	1	37.6	11.3	D	B
El Prado Road (NS) at:																			
6	Kimball Avenue (EW)	TS	1	1	1	1	1	1	1	1	1	0	0.5	0.5	1>	16.3	22.9	B	C
7	Pine Avenue (EW)	CSS	0	0	0	0	1	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F
	- with improvements	<u>TS</u>	0	0	0	0	1	1	0	<u>1</u>	1	0	0	1	<u>1</u>	28.6	25.5	C	C
Mountain Avenue (NS) at:																			
8	Kimball Avenue (EW)	TS	1	0	1	0	0	0	0	0	2	0	1	2	0	8.8	10.6	A	B
9	Bickmore Avenue (EW)	CSS	0	1	0	1	1	1	0	0	0	0	1	0	1	12.7	11.0	B	B
Euclid Avenue (SR-83) (NS) at:																			
10	Schaefer Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	0.5	0.5	1	25.1	32.7	C	C
11	Edison Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	1	0	-- ⁴	34.8	F	C
	- with improvements	TS	1	2	1	<u>2</u>	<u>3</u>	1	<u>2</u>	<u>2</u>	1	1	1	<u>2</u>	<u>1</u>	42.5	33.1	D	C
12	Eucalyptus Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F
	- with improvements	TS	2	3	1	1	<u>3</u>	1	1	1	1	<u>1></u>	1	1	<u>1</u>	35.5	39.3	D	D
13	Merrill Avenue (EW)	TS	1	2	1	1	2	0	0	0	0	0	0	1	0	-- ⁴	10.4	F	B
	- with improvements	TS	1	2	1	1	<u>3</u>	0	0	0	0	0	<u>1</u>	0	<u>1</u>	16.4	9.4	B	A

Table 4.15-6 (Cont.): Interim Year With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																Delay ² (Secs.)				Level of Service			
		North-Bound				South-Bound				East-Bound				West-Bound											
		L	T	R		L	T	R		L	T	R		L	T	R		AM	PM	AM	PM				
14 Kimball Avenue (EW) - with improvements ⁶	TS	1	2	1	1	1	1	1	1	1	1	1	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F					
	TS	1	3	0	1	3	<u>1</u> ≥	2	1	1	1	1	<u>1</u>	<u>1</u>	<u>1</u> ≥	37.8	30.8	D	C						
15 Bickmore Avenue (EW) - with improvements	CSS	1	1	1	1	1	1	0.5	0.5	1	1	1	1	1	1	1	-- ⁴	-- ⁴	F	F					
	<u>TS</u>	<u>1</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>4</u>	1	<u>1</u>	<u>1</u>	1	1	<u>2</u>	<u>0.5</u>	<u>1.5</u>	<u>27.9</u>	<u>C</u>	<u>C</u>	<u>C</u>	<u>C</u>						
16 Pine Avenue (EW) - with improvements ⁶	TS	1	2	1	1	2	1	0.5	0.5	1	1	0.5	0.5	1	1	1	-- ⁴	-- ⁴	F	F					
	TS	1	2	<u>1</u> >>>	<u>2</u>	<u>3</u>	0	<u>1</u>	<u>2</u>	<u>1</u> >>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	39.3	39.9	D	D					
17 SR-71 Fwy. NB Ramps (EW)	TS	0	2	<u>1</u> >>>	1	2	0	0	0	0	0	2	0	1	>>>	8.2	8.3	A	A						
Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:																									
18 SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW) - with improvements ⁶	TS	0	2	1	1	2	<u>1</u> >>>	1.5	0.5	1	1	1	0	1	0	<u>1</u> >	-- ⁴	20.6	F	C					
	TS	0	<u>3</u>	1	<u>2</u>	2	<u>1</u> >>	1.5	0.5	1	1	1	0	1	0	<u>2</u> ≥	25.9	17.9	C	B					
Sultana Avenue (NS) at:																									
19 Pine Avenue (EW) ⁷	CSS	0	0	0	0	1	0	1	1	1	0	0	0	1	0	0	18.0	41.0	C	E					
Mill Creek Road (NS) at:																									
20 Kimball Avenue (EW) - with improvements	CSS	1	0	1	0	0	0	0	1	0	1	1	1	1	0	0	27.0	12.9	D	B					
	<u>TS</u>	1	0	1	0	0	0	0	1	0	1	1	1	1	0	0	15.1	11.2	B	B					
21 Bickmore Avenue (EW)	AWS	0	1	0	1	1	0	0	1	0	0	1	0	1	0	0	12.8	10.7	B	B					
Chino Corona Road/Mill Creek Road (NS) at:																									
22 Pine Avenue (EW) - with improvements (split phasing) - with improvements (protected phasing)	TS	1	<u>1</u>	0	1	<u>1</u>	0	<u>1</u>	1	<u>1</u> >>	1	1	1	0	0	0	-- ⁴	-- ⁴	F	F					
	TS	<u>1.5</u>	0.5	0	1	1	0	1	<u>2</u>	1	1	<u>2</u>	0	1	<u>2</u>	0	40.2	26.6	D	D					
	TS	<u>2</u>	1	0	1	1	0	1	<u>2</u>	1	1	<u>2</u>	0	1	<u>2</u>	0	43.7	27.7	D	D					
Cucamonga Avenue (NS) at:																									
23 Chino Corona Road (EW) - with improvements	AWS	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	45.2	-- ⁴	E	F					
	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	45.5	37.1	D	D					

Table 4.15-6 (Cont.): Interim Year With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																Delay ² (Secs.)				Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound												
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM			
West Preserve Loop (NS) at:																							
24	Bickmore Avenue (EW)	AWS	0	1	0	0	0	1	0	0	0	1	0	0	1	0	13.0	9.0	B	A			
25	Pine Avenue (EW)	TS	0	1	0	1	1	0	1	0	1	1	0	1	1	0	31.8	19.5	C	B			
Main Street (NS) at:																							
26	Kimball Avenue (EW)	AWS	1	0	1	0	0	0	0	1	1	1	0	1	0	9.0	8.6	A	A				
27	Preserve Loop (EW)	AWS	0	1	0	0.5	0.5	1	1	0	1	1	0	1	0	8.5	8.4	A	A				
28	Bickmore Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	9.5	10.8	A	B				
29	Pine Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	62.8	-- ⁴	F	F				
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	2	0	14.7	31.7	B	C					
Main Street/North East Site Access (NS) at:																							
30	Chino Corona Road (EW)	<u>CSS</u>	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	1	0	13.8	28.4	B	D					
East Preserve Loop (NS) at:																							
31	Bickmore Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	8.8	10.2	A	B				
32	Pine Avenue (EW) ⁷	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	-- ⁴	-- ⁴	F	F				
Hellman Avenue (NS) at:																							
33	Kimball Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	17.0	37.4	C	E					
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	19.2	21.5	B	C					
34	Pine Avenue/Schleisman Road (EW)	CSS	0	1	0	0	1	0	0	1	0	1	0	1	0	-- ⁴	-- ⁴	F	F				
	- with improvements	<u>TS</u>	<u>1</u>	1	0	1	1	0	<u>1</u>	2	0	<u>1</u>	2	0	29.7	29.1	C	C					
35	Chino Corona Road/Chandler Street (EW)	CSS	0	1	0	0	1	0	0.5	0.5	1	0	1	0	-- ⁴	-- ⁴	F	F					
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	29.9	39.5	C	D					
36	River Road (EW)	CSS	1	0	1	0	0	0	0	1	0	0.5	0.5	0	20.2	21.4	C	C					

Table 4.15-6 (Cont.): Interim Year With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																			
		North-Bound				South-Bound				East-Bound				West-Bound				Delay ² (Secs.)		Level of Service	
		L	T	R		L	T	R		L	T	R		L	T	R		AM	PM	AM	PM
Archibald Street (NS) at:																					
37	Schleisman Road (EW)	TS	1	1	1	1	1	0	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F		
	- with improvements	TS	1	1	1	1	1	2	0	1	1	1	1	<u>2</u>	0	40.3	46.9	D	D		
38	Chandler Street (EW)	TS	1	2	1	1	1	2	0	1	2	1	1	2	1	36.7	33.7	D	C		
39	River Road (EW)	CSS	1	1	0	0	0	1	1	1	0	1	0	0	0	83.3	-- ⁴	F	F		
	- with improvements	<u>TS</u>	<u>2</u>	1	0	0	0	1	1	1	0	1	0	0	0	30.2	42.9	C	D		
River Road (NS) at:																					
40	Bluff Street (EW)	TS	1	1	0	1	1	2	0	0.5	0.5	1	0.5	0.5	1	13.6	10.5	B	B		
41	Country Club Lane/Second Street (EW)	TS	1	2	1	1	1	2	1	1	1	1	1	1	0	28.3	29.1	C	C		
Lincoln Avenue (NS) at:																					
42	Pomona Road (EW)	TS	2	2	0	1	1	2	0	1	0.5	1.5	1	1	0	26.7	26.2	C	C		
43	SR-91 Fwy. EB Ramps (EW)	TS	1	2	1	1	1	2	0	0	1	0	0.5	0.5	1	30.4	23.3	C	C		
Harrison Avenue (NS) at:																					
44	Schleisman Road (EW)	AWS	1	1	1	1	0	1	0	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F		
	- with improvements	<u>TS</u>	1	1	1	<u>1</u>	<u>1</u>	1	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	35.3	33.6	D	C		
Sumner Avenue (NS) at:																					
45	Schleisman Road (EW)	AWS	0	1	0	0	0	1	1	1	0	1	0	<u>1</u>	0	-- ⁴	35.9	F	E		
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	<u>1</u>	1	0	1	<u>1</u>	0	<u>1</u>	1	0	38.3	39.9	D	D		
Cleveland Avenue (NS) at:																					
46	Schleisman Road (EW)	AWS	0	1	0	0.5	0.5	0	0	0	1	0	1	1	0	-- ⁴	25.8	F	D		
	- with improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	1	0	1	1	0	33.9	28.6	C	C		
Hamner Avenue (NS) at:																					
47	Schleisman Road (EW)	TS	1	2	1	1	1	2	1	1	1	0	1	1	0	35.6	39.0	D	D		

Table 4.15-6 (Cont.): Interim Year With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹														Delay ² (Secs.)				Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound										
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
I-15 Fwy. SB Ramps (NS) at:																					
48	Limonite Avenue (EW)		0	0	0	1	1	1	1	0	2	1	2	2	0	21.9	20.3	C	C		
I-15 Fwy. SB Ramps (NS) at:																					
49	Schleisman Road (EW)		0	0	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	<u>1</u> >>	<u>2</u>	<u>1</u>	0	14.4	14.9	B	B		
I-15 Fwy. NB Ramps (NS) at:																					
50	Limonite Avenue (EW)		1	1	1	0	0	0	0	2	2	0	0	2	1	18.2	25.6	B	C		
I-15 Fwy. NB Ramps (NS) at:																					
51	Schleisman Road (EW)		<u>1</u>	0	<u>1</u>	0	0	0	0	<u>1</u>	<u>2</u>	0	0	<u>1</u>	<u>1</u>	13.8	13.9	B	B		
Cucamonga Avenue (NS) at:																					
52	West Site Access (EW)		0	<u>1</u>	0	0	0	<u>1</u>	0	0	0	0	0	<u>1</u>	0	10.0	9.2	B	A		
North West Site Access (NS) at:																					
53	Chino Corona Road (EW)		0	<u>1</u>	0	0	0	0	0	0	1	0	<u>1</u>	1	0	14.9	13.7	B	B		

Notes:

- When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left
T = Through
R = Right
>> = Free Right Turn
> = Right Turn Overlap
- Delay and level of service calculated using the following analysis software: Traffix, Version 7.9 RI (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.
- TS = Traffic Signal
AWS = All Way Stop
CSS = Cross Street Stop
- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F"
- Without improvements configuration reflects Pine Avenue extension to El Prado Road.
- Pedestrians are assumed not to occur on every cycle.
- Intersection does not warrant a traffic signal. No other feasible improvements will provide acceptable LOS.

Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.

Project's impacts at buildout (2019) will be greater than at the time of the General Plan buildout, (Post-2030) because Project traffic would be required to travel a greater distance prior to the development of portions of The Preserve Specific Plan and other developments because some future improvements will not be complete before the 2019 interim year.

Level of Significance Before Mitigation

Potentially Significant.

Mitigation Measures

T-1 The Project applicant shall either construct certain improvements or pay a fair share mitigation fee for improvements, to be determined by the City of Chino, at the following intersections to mitigate impacts for the 2019 Interim Year condition:

City of Chino:

- SR-71 Freeway Northbound Ramps (NS) at:
 - 5. Pine Avenue (EW)
- El Prado Road (NS) at:
 - 7. Pine Avenue (EW)
- Euclid Avenue (SR-83) (NS) at:
 - 11. Edison Avenue (EW)
 - 12. Eucalyptus Avenue (EW)
 - 13. Merrill Avenue (EW)
 - 14. Kimball Avenue (EW)
 - 15. Bickmore Avenue (EW)
 - 16. Pine Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - 18. SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW)
- Mill Creek Road (NS) at:
 - 20. Kimball Avenue (EW)
- Chino Corona Road / Mill Creek Road (NS) at:
 - 22. Pine Avenue (EW)
- Cucamonga Avenue (NS) at:
 - 23. Chino Corona Road (EW)
 - 52. Project Site Access Road (EW) [Future Intersection]
- Main Street (NS) at:
 - 29. Pine Avenue (EW) [Future intersection]
- Main Street/North East Project Site Access Roadway (NS) at:
 - 30. Chino Corona Road (EW) [Future intersection]

Counties of San Bernardino/Riverside:

- Hellman Avenue (NS) at:
 - 33. Kimball Avenue/Limonite Avenue (EW) [Future Intersection]
 - 34. Pine Avenue/Schleisman Road (EW)
 - 35. Chino Corona Road/Chandler Street (EW)

County of Riverside:

- Archibald Street (NS) at:
 - 37. Schleisman Road (EW)
 - 39. River Road (EW)
- Harrison Avenue (NS) at:
 - 44. Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - 45. Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - 46. Schleisman Road (EW)

T-2

The Project applicant shall adhere to the following provisions regarding Project circulation and landscape improvements:

- Landscape plans shall incorporate the line of sight at Project access points to ensure that fences, signs, trees, shrubs, etc. do not block the line of sight.
- Internal traffic signing/stripping shall be implemented in conjunction with detailed construction plans for the Project.
- Stop sign control for the Project site access driveways shall be provided.
- The Project internal spine road shall be constructed to Specific Plan/collector roadway standards.
- Cucamonga Avenue shall be constructed from Project entry to Chino Corona Road to match the planned street section north of Chino Corona Road, which is a Local Collector (two lanes) with Paseo (83' right-of-way).
- Chino Corona Road adjacent to the site shall be constructed at its half section width as a local collector (66' right-of-way) in conjunction with Project development.

Level of Significance After Mitigation

Less than significant.

Air Traffic Patterns

Impact 4.15-2:	The Project will not 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. [CEQA Transportation Threshold 15(c)]

Impact Analysis

Chino Airport, located north of Kimball Avenue and east of Euclid Avenue in the City of Chino, lies more than 1 ½ miles north/northwest of the Project site. The Airport Comprehensive Land Use Plan for Chino Airport, adopted in 1992, delineates referral zones surrounding the airport and defines special land use requirements and development limitations. These referral zones limit height and regulate lighting within runway approaches and designated areas to protect the public and air traffic from potential accidents. Based on mapping contained in Final EIR (2003), a small area at the northernmost point of the Project site along Chino Corona Road designated for open space-recreation and low density residential is within Safety Zone III. The bulk of the Project site is contained within the 900- and 1,000-foot elevation Primary Safety Zones.

Safety Zone III encompasses an oval area around the Airport extending approximately 10,000 feet from the Airport in which aircraft accidents and exposure to noise is minimal. Certain development limitations exist in this zone, while most land use types are acceptable. Both single-family residential and open space uses are conditionally permitted, based on provision of an acoustical study and inclusion of forced air ventilation in the dwelling units.

The 900- and 1,000-foot elevation Primary Safety Zones are subject to Federal Aviation Administration (FAA) Regulations Part 77 height restrictions and are identified within an overall potential impact area where it may be necessary to alert property owners of the existence of airport operations in the area. To estimate building height restrictions within the 900- and 1,000-foot elevation Primary Safety Zones, the ground elevation is subtracted from the 900- or 1,000-foot elevation. The remaining number is the maximum building height. Elevations within the Project site range from approximately 508 to 579 feet above mean sea level. Average elevation at the Project site is, therefore, approximately 544 feet. Maximum building height within the 900-foot elevation Primary Safety Zone, the more restrictive zone, would be 356' (900' – 544'). None of the proposed Project buildings will exceed three stories plus loft in height, which would be within the maximum building height restriction. Project implementation will not require any changes in air traffic patterns.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

No impact.

Hazards

Impact 4.15-3:	The Project will not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [CEQA Transportation Threshold 15(d)]

Impact Analysis

The Project circulation system has been designed in accordance with the City of Chino roadway standards, and avoids potential roadway and traffic-related hazards. Project Mitigation Measure T-2 specifies that the line of sight at Project access points shall be incorporated into Project landscape plans to ensure that fences, signs, trees, shrubs, etc. do not block the line of sight. No Project design features would result in traffic hazards.

The existing onsite dairy operation will be removed in its entirety prior to commencement of Project construction. While other surrounding agricultural uses could still be operational once Project construction begins, Project implementation is not expected to result in an increase in hazards due to the presence of farm equipment.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

Implement Mitigation Measure T-2. No further mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Emergency Access

Impact 4.15-4:	The Project will not result in inadequate emergency access. [CEQA Transportation Threshold 15(e)]

Impact Analysis

City of Chino Municipal Code and development standards, which include but are not limited to roadway, lighting, and gateway standards, require adequate emergency access for all new development. While the Project will increase the need for emergency services, the Project circulation network will be connected to developing areas north of Chino Corona Road. Cucamonga Avenue will be extended south of Chino Corona Road as a local collector, typically two-lanes, within a 66' right-of-way. In all, the Project will introduce a greater need for emergency services; however, Project design permits adequate emergency access.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Parking Capacity

Impact 4.15-5:	The Project will not result in inadequate parking capacity. [CEQA Transportation Threshold 15(f)]

Impact Analysis

The Project will provide parking in accordance with City of Chino parking requirements, as defined in the City Zoning Ordinance (Chapter 20.08.003). No significant parking impacts would be created by Project implementation.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Conflict with Alternative Transportation

Impact 4.15-6:	The Project will not conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks). [CEQA Transportation Threshold 15(g)]

Impact Analysis

The Preserve Specific Plan and EIR

The Edgewater Project would be linked with the transportation planning for The Preserve, which intends to incorporate a transit system as well as a paseo and open space system.

The planned transit system would be two-tiered, consisting of a local transit system and the regional bus service. The local transit system is envisioned as a one-way, continuous loop on dedicated or prioritized travel lanes. The transit system is intended to provide continuous service with approximately 10-minute headways. The transit stops are intended to serve major features, such as The Preserve Community Core, and areas of concentrated residential uses. The stops are to be spaced to serve an approximate walking distance of a quarter mile and help maintain the 10-minute headway. The transit stops are also intended to serve as connection points with regional transit systems and bus services. The specific locations of the transit stops are being determined in consultation with the City of Chino, pursuant to detailed transit plans.

The City of Chino's Preserve Specific Plan Community Paseo and Open Space System and Bicycle Plan (EIR Exhibits 4.14-1 and 4.14-2) provide for the implementation of multi-purpose trails (with desired connection to existing and planned regional trails). The Amendment to The Preserve Specific Plan (prepared by PBR) modifies the Specific Plan Community Paseo and Open Space System and the Bicycle Plan to incorporate the Edgewater Communities Project, but would not adversely affect long-range implementation of these recreational facilities that provide alternative transportation opportunities.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.15-7:	The Project could cumulatively exceed a level of service standard established by the county congestion management agency for designated roads or highways. [CEQA Transportation Threshold 15(b)]

The Project will contribute to significant and cumulatively adverse traffic conditions previously identified in the Specific Plan EIR for buildout of the Specific Plan area.

Impact Analysis

The cumulative impact analysis for the Project contained in the Traffic Impact Analysis is for General Plan Buildout (Post-2030). The analysis addresses development according to the City of Chino General Plan designations and the corresponding allowable densities permitted under the General Plan.

General Plan Buildout (Post-2030) Without the Proposed Project

The following study area intersections will experience unacceptable traffic operations during the peak hours and are, therefore, deficient per City of Chino, County of San Bernardino, County of Riverside, or Caltrans criteria (see Table 4.15-7):

- Central Avenue (NS) at:
 - SR-71 Freeway SB Ramps (EW)
- SR-71 Freeway SB Ramps (NS) at:
 - Pine Avenue (EW)
- SR-71 Freeway NB Ramps (NS) at:
 - Pine Avenue (EW)

- El Prado Road (NS) at:
 - Pine Avenue (EW)
- Euclid Avenue (SR-83) (NS) at:
 - Schaefer Avenue (EW)
 - Edison Avenue (EW)
 - Eucalyptus Avenue (EW)
 - Merrill Avenue (EW)
 - Kimball Avenue (EW)
 - Bickmore Avenue (EW)
 - Pine Avenue (EW)
- Euclid Avenue (SR-83) 1 Butterfield Ranch Road (NS) at:
 - SR-71 Freeway SB Off-Ramp/Shady View Drive (EW)
- Sultana Avenue (NS) at:
 - Pine Avenue (EW)
- Mill Creek Road (NS) at:
 - Kimball Avenue (EW)
- Chino Corona Road/Mill Creek Road (NS) at:
 - Pine Avenue (EW)
- West Preserve Loop (NS) at:
 - Pine Avenue (EW)
- Main Street (NS) at:
 - Bickmore Avenue (EW)
 - Pine Avenue (EW)
- East Preserve Loop (NS) at:
 - Pine Avenue (EW)
- Hellman Avenue (NS) at:
 - Kimball Avenue (EW)
 - Pine Avenue/Schleisman Road (EW)
 - Chino Corona Road/Chandler Street (EW)
 - River Road (EW)
- Archibald Street (NS) at:
 - Schleisman Road (EW)
 - River Road (EW)
- River Road (NS) at:
 - Bluff Street (EW)
- Lincoln Avenue (NS) at:
 - SR-91 Freeway EB Ramps (EW)
- Harrison Avenue (NS) at:
 - Schleisman Road (EW)

- Sumner Avenue (NS) at:
 - Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - Schleisman Road (EW)
- Hamner Avenue (NS) at:
 - Schleisman Road (EW)
- 1-1 5 Freeway SB Ramps (NS) at:
 - Schleisman Road (EW)
- 1-1 5 Freeway NB Ramps (NS) at:
 - Schleisman Road (EW)

Table 4.15-7 also provides levels of service for intersections deficient under General Plan Buildout (Post-2030) Without Project conditions with improvements, creating acceptable traffic operations Post-2030 at each of the deficient intersections identified.

Table 4.15-7: General Plan Buildout (Post-2030) Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (SECS.)		Level of Service		
		North-Bound			South-Bound			East-Bound			West-Bound							
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
		Central Avenue (NS) at:																
1	El Prado Road (EW) ⁶	TS	1	2	1	1	3	0	1	1	1	1.5	0.5	1>	35.4	30.3	D	C
2	SR-71 Fwy. NB Ramps (EW)	TS	0	3	1>>	0	3	1>>	0	0	0	2	0	1	9.3	10.0	A	B
3	SR-71 Fwy. SB Ramps (EW)	TS	0	3	1>>	0	3	1>>	2	0	1	0	0	0	11.1	-- ⁴	B	F
	-With Improvements	TS	0	3	1>>	0	3	1>>	2	0	<u>2</u>	0	0	0	7.5	12.6	A	B
SR-71 Fwy. SB Ramps (NS) at:																		
4	Pine Avenue (EW)	TS	0	0	0	0.5	0.5	1	0	1	1	1	2	0	46.1	-- ⁴	D	F
	-With Improvements	TS	0	0	0	<u>1.5</u>	0.5	1	0	1	1	1	2	0	25.7	16.1	C	B
SR-71 Fwy. NB Ramps (NS) at:																		
5	Pine Avenue (EW) ⁵	AWS	1	0	1	0	0	0	<u>1</u>	<u>1</u>	0	0	1	0	-- ⁴	-- ⁴	F	F
	-With Improvements	<u>TS</u>	1	0	1	0	0	0	1	1	0	0	1	<u>1</u>	22.7	11.1	C	B
El Prado Road (NS) at:																		
6	Kimball Avenue (EW) ⁶	TS	1	1	1	1	1	1	1	1	0	0.5	0.5	1>	16.9	26.1	B	C
7	Pine Avenue (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F
	-With Improvements	<u>TS</u>	0	0	0	0	1	0	<u>1</u>	1	0	0	<u>2</u>	0	20.5	32.4	C	C
Mountain Avenue (NS) at:																		
8	Kimball Avenue (EW) ⁶	TS	1	0	1	0	0	0	0	2	0	1	2	0	10.6	11.6	B	B
9	Bickmore Avenue (EW)	CSS	0	1	0	1	1	0	0	0	0	1	0	1	10.8	10.3	B	B
Euclid Avenue (SR-83) (NS) at:																		
10	Schaefer Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	0.5	0.5	1	40.1	-- ⁴	D	F
	-With Improvements	TS	1	2	1	1	2	1	1	<u>2</u>	1	0.5	0.5	1	40.0	39.3	D	D
11	Edison Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F
	-With Improvements	TS	1	<u>3</u>	1	<u>2</u>	<u>3</u>	1	<u>2</u>	<u>2</u>	1	<u>2</u>	<u>3</u>	<u>1</u>	35.4	46.5	D	D
12	Eucalyptus Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F
	-With Improvements ⁶	TS	<u>2</u>	<u>3</u>	1	1	<u>3</u>	1	<u>2</u>	1	<u>1>></u>	1	1	1	35.8	38.2	D	D

Table 4.15-7 (Cont.): General Plan Buildout (Post-2030) Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (SECS.)		Level of Service				
		North-Bound				South-Bound				East-Bound								West-Bound		
		L	T	R		L	T	R		L	T	R		L	T	R		AM	PM	
13 Merrill Avenue (EW)	TS	1	2	1	1	2	0	0	0	0	0	0	0	0	1	0	-- ⁴	10.2	F	B
-With Improvements ⁶	TS	1	2	1	1	3	0	0	0	0	0	0	1	0	0	1	21.8	17.6	C	B
14 Kimball Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F	
-With Improvements ⁶	TS	1	3	0	1	3	1>>>	2	1	1	1	1	2	1	1>>>	38.5	42.8	D	D	
15 Bickmore Avenue (EW)	CSS	1	1	1	1	1	1	1	0.5	0.5	1	1	1	1	1	-- ⁴	-- ⁴	F	F	
-With Approved Geometry ⁶	TS	1	4	2	2	4	1	1	1	1	1	2	0.5	0.5	1	31.9	31.2	C	C	
16 Pine Avenue (EW)	TS	1	2	1	1	2	1	1	0.5	0.5	1>>>	0.5	0.5	0.5	1	-- ⁴	-- ⁴	F	F	
-With Improvements ⁶	TS	1	3	1>>>	2	3	1	1	1	3	1>>>	2	1	1	1	40.5	39.6	D	D	
17 SR-71 Fwy. NB Ramps (EW)	TS	0	2	1>>>	1	2	0	0	0	0	0	2	2	0	1>>>	6.8	8.5	A	A	
Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:																				
18 SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW)	TS	0	2	1	1	2	1>>>	1.5	0.5	1	1	1	0	0	1	>	-- ⁴	19.6	F	B
-With Improvements ⁶	TS	0	3	1	2	2	1>>>	1.5	0.5	1	1	1	0	0	2	>>	25.8	18.0	C	B
Sultana Av. (NS) at:																				
19 Pine Avenue (EW)	CSS	0	0	0	0	1	0	1	1	0	0	0	0	1	0	0	-- ⁴	-- ⁴	F	F
-With Improvements	TS	0	0	0	0	1	0	1	2	0	0	0	0	2	0	7.9	9.4	A	A	
Mill Creek Road (NS) at:																				
20 Kimball Avenue (EW)	CSS	1	0	1	0	0	0	0	0	1	0	1	1	1	0	-- ⁴	16.2	F	C	
-With Improvements	TS	1	0	1	0	0	0	0	1	0	0	1	1	1	0	17.1	6.4	B	A	
21 Bickmore Avenue (EW)	AWS	0	1	0	1	1	0	0	0	1	0	0	0	1	0	12.1	23.7	B	C	
Chino Corona Road/Mill Creek Road (NS) at:																				
22 Pine Avenue (EW)	TS	1	1	0	1	1	0	1	1	1	1>>>	1	1	1	0	-- ⁴	-- ⁴	F	F	
-With Improvements (Standard Phasing)	TS	1	1	0	1	1	0	1	2	1	1	1	1	2	0	26.9	52.8	C	D	
Cucamonga Avenue (NS) at:																				
23 Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	0	1	0	0	0	1	0	12.7	17.3	B	C	

Table 4.15-7 (Cont.): General Plan Buildout (Post-2030) Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (SECS.)		Level of Service			
		North-Bound			South-Bound			East-Bound			West-Bound								
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
		West Preserve Loop (NS) at:																	
24 Bickmore Avenue (EW)	AWS	0	1	0	0	0	1	0	0	0	0	0	1	0	16.8	17.6	C	C	
25 Pine Avenue (EW)	TS	0	<u>1</u>	0	1	<u>1</u>	0	1	1	0	0	<u>1</u>	1	0	-- ⁴	-- ⁴	F	F	
-With Improvements ⁶	TS	<u>1</u>	1	0	1	1	0	1	<u>2</u>	0	1	<u>2</u>	0	0	23.4	19.0	C	B	
Main Street (NS) at:																			
26 Kimball Avenue (EW)	AWS	1	0	1	0	0	0	1	1	0	1	1	1	0	10.7	12.4	B	B	
27 Preserve Loop (EW)	AWS	0	1	0	0.5	1	0.5	1	1	0	1	1	1	0	9.2	10.1	A	B	
28 Bickmore Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	0	12.1	51.5	B	F	
-With Improvements	<u>AWS</u>	0	1	0	0	1	0	1	0	0	1	0	1	0	8.4	15.5	A	C	
29 Pine Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F	
-With Improvements ⁶	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	1	<u>2</u>	0	<u>1</u>	<u>2</u>	0	0	19.4	19.5	B	B	
30 Chino Corona Road (EW)	CSS	0	0	0	0	<u>1</u>	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	0	22.9	23.7	C	C	
East Preserve Loop (NS) at:																			
31 Bickmore Avenue (EW)	CSS	0	1	0	0	0	1	0	0	0	1	0	1	0	10.0	17.9	A	C	
32 Pine Avenue (EW)	CSS	0	1	0	0	0	1	0	0	0	1	0	1	0	-- ⁴	-- ⁴	F	F	
-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	52.6	47.3	D	D
Hellman Avenue (NS) at:																			
33 Kimball Avenue (EW)	CSS	0	<u>1</u>	0	0	0	<u>1</u>	0	0	0	<u>1</u>	0	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F
-With Improvements	<u>TS</u>	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	1	<u>1</u>	<u>1</u>	0	<u>1</u>	0	31.3	41.9	C	D	
34 Pine Avenue/Schleisman Road (EW)	CSS	0	1	0	0	0	1	0	0	0	1	0	1	0	-- ⁴	-- ⁴	F	F	
-With Planned Ultimate Improvements	<u>TS</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	0	35.9	36.7	D	D	
35 Chino Corona Road/Chandler Street (EW)	CSS	0	1	0	0	0	1	0	0.5	1	0	1	0	0	-- ⁴	-- ⁴	F	F	
-With Improvements	<u>TS</u>	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>1</u>	0	<u>1</u>	1	1	0	25.4	43.8	C	D	
36 River Road (EW)	CSS	1	0	1	0	0	0	0	0	1	0	0.5	0.5	0	70.2	-- ⁴	F	F	
-With Improvements	<u>TS</u>	1	0	1	0	0	0	0	0	1	0	<u>1</u>	<u>1</u>	0	12.1	29.3	B	C	

Table 4.15-7 (Cont.): General Plan Buildout (Post-2030) Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (SECS.)		Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
		Archibald Street (NS) at:															
37 Schleisman Road (EW)	TS	1	1	1	1	1	0	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F
-With Improvements	TS	1	1	1	<u>2</u>	<u>2</u>	0	1	<u>3</u>	0	1	<u>3</u>	0	51.7	47.6	D	D
38 Chandler Street (EW) ⁶	TS	1	2	1	1	2	0	1	2	1	1	2	1	35.8	33.7	D	C
39 River Road (EW)	CSS	1	1	0	0	1	1	1	0	1	0	0	0	-- ⁴	-- ⁴	F	F
-With Improvements	<u>TS</u>	<u>2</u>	1	0	0	1	1	1	0	<u>1>></u>	0	0	0	29.1	23.7	C	C
River Road (NS) at:																	
40 Bluff Street (EW)	TS	1	1	0	1	2	0	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F
-With Improvements	TS	1	2	0	1	2	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	33.6	35.8	C	D
41 Country Club Lane/Second Street (EW)	TS	1	2	1	1	2	1	1	1	1>	1	1	0	36.4	34.1	D	C
Lincoln Avenue (NS) at:																	
42 Pomona Road (EW)	TS	2	2	0	1	2	0	1	0.5	1.5>	1	1	0	43.4	41.8	D	D
43 SR-91 Fwy. EB Ramps (EW)	TS	1	2	1	1	2	0	0	1	0	0.5	0.5	1	-- ⁴	27.5	F	C
-With Improvements	TS	1	2	<u>1></u>	1	2	0	0	1	0	0.5	0.5	<u>1></u>	37.7	26.5	D	C
Harrison Avenue (NS) at:																	
44 Schleisman Road (EW)	AWS	1	1	1	0	1	0	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F
-With Improvements	<u>TS</u>	1	1	1	<u>1</u>	1	0	<u>1</u>	<u>3</u>	0	<u>1</u>	<u>2</u>	0	37.2	37.6	D	D
Sumner Avenue (NS) at:																	
45 Schleisman Road (EW)	AWS	0	1	0	0	1	1	1	0	1	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F
-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	1	<u>3</u>	0	<u>1</u>	<u>2</u>	0	50.7	41.6	D	D
Cleveland Avenue (NS) at:																	
46 Schleisman Road (EW)	AWS	0	1	0	0.5	0.5	0	0	<u>1</u>	0	1	<u>1</u>	0	-- ⁴	-- ⁴	F	F
-With Improvements ⁶	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	<u>1</u>	<u>1></u>	<u>1</u>	<u>3</u>	0	1	<u>2</u>	0	39.2	44.4	D	D
Hamner Avenue (NS) at:																	
47 Schleisman Road (EW)	TS	1	2	1	1	2	1	1	1	0	1	1	0	43.4	-- ⁴	D	F
-With Improvements	TS	1	<u>3</u>	1	1	<u>3</u>	1	1	<u>3</u>	0	1	1	0	41.7	47.9	D	D

Table 4.15-7 (Cont.): General Plan Buildout (Post-2030) Without Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (SECS.)		Level of Service		
		North-Bound			South-Bound			East-Bound			West-Bound							
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM			
I-15 Fwy. SB Ramps (NS) at:																		
48 Limonite Avenue (EW)	TS	0	0	0	1	1	1	1	0	2	1	2	2	0	25.3	27.1	C	C
I-15 Fwy. SB Ramps (NS) at:																		
49 Schleisman Road (EW)	<u>TS</u>	0	0	0	<u>1</u>	0	<u>1</u>	0	<u>2</u>	<u>1>></u>	2	2	2	0	16.9	20.0	B	C
I-15 Fwy. NB Ramps (NS) at:																		
50 Limonite Avenue (EW)	TS	1	1	1	0	0	0	0	2	2	0	0	2	1	28.0	31.9	C	C
I-15 Fwy. NB Ramps (NS) at:																		
51 Schleisman Road (EW)	<u>TS</u>	<u>1</u>	0	<u>1</u>	0	0	0	0	<u>1</u>	<u>2</u>	0	0	1	<u>1</u>	25.3	38.1	C	D
Notes:																		
¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left T = Through R = Right >> = Free Right Turn > = Right Turn Overlap.																		
² Delay and level of service calculated using the following analysis software: Traffix, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.																		
³ TS = Traffic Signal AWS = All Way Stop CSS = Cross Street Stop.																		
⁴ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".																		
⁵ Configuration reflects Pine Avenue extension to El Prado Road.																		
⁶ Pedestrians are assumed not to occur on every cycle.																		
Source: Urban Crossroads, Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.																		

General Plan Buildout (Post-2030) With Proposed Project Conditions

The following intersections for General Plan Buildout (Post-2030) With Proposed Project conditions will experience unacceptable levels of service operations during the peak hours and are, therefore, deficient per City of Chino, County of San Bernardino, County of Riverside, or Caltrans criteria (see Table 4.15-8):

- Central Avenue (NS) at:
 - SR-71 Freeway SB Ramps (EW)
- SR-71 Freeway SB Ramps (NS) at:
 - Pine Avenue (EW)
- SR-71 Freeway NB Ramps (NS) at:
 - Pine Avenue (EW)
- El Prado Road (NS) at:
 - Pine Avenue (EW)
- Euclid Avenue (SR-83) (NS) at:
 - Schaefer Avenue (EW)
 - Edison Avenue (EW)
 - Eucalyptus Avenue (EW)
 - Merrill Avenue (EW)
 - Kimball Avenue (EW)
 - Bickmore Avenue (EW)
 - Pine Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - SR-71 Freeway SB Off-Ramp/Shady View Drive (EW)
- Sultana Avenue (NS) at:
 - Pine Avenue (EW)
- Mill Creek Road (NS) at:
 - Kimball Avenue (EW)
- Chino Corona Road/Mill Creek Road (NS) at:
 - Pine Avenue (EW)
- Cucamonga Avenue (NS) at:
 - Chino Corona Road (EW)
- West Preserve Loop (NS) at:
 - Pine Avenue (EW)
- Main Street (NS) at:
 - Bickmore Avenue (EW)
 - Pine Avenue (EW)
 - Main Street/North East Site Access (NS)
 - Chino Corona Road (EW)

- East Preserve Loop (NS) at:
 - Pine Avenue (EW)
- Hellman Avenue (NS) at:
 - Kimball Avenue (EW)
 - Pine Avenue/Schleisman Road (EW)
 - Chino Corona Road/Chandler Street (EW)
 - River Road (EW)
- Archibald Street (NS) at:
 - Schleisman Road (EW)
 - River Road (EW)
- River Road (NS) at:
 - Bluff Street (EW)
- Lincoln Avenue (NS) at:
 - SR-91 Freeway EB Ramps (EW)
- Harrison Avenue (NS) at:
 - Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - Schleisman Road (EW)
- Cleveland Avenue (NS) at:
 - Schleisman Road (EW)
- Hamner Avenue (NS) at:
 - Schleisman Road (EW)
- 1-15 Freeway SB Ramps (NS) at:
 - Schleisman Road (EW)
- 1-15 Freeway NB Ramps (NS) at:
 - Schleisman Road (EW)

Table 4.15-8: General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)				Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound								
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
Central Avenue (NS) at:																			
1	El Prado Road (EW) ⁶	TS	1	2	1	1	3	0	1	1	1	1.5	0.5	1>	36.5	30.6	D	C	
2	SR-71 Fwy. NB Ramps (EW)	TS	0	3	1>>	0	3	1>>	0	0	0	2	0	1	9.3	10.0	A	B	
3	SR-71 Fwy. SB Ramps (EW)	TS	0	3	1>>	0	3	1>>	2	0	1	0	0	0	11.7	-- ⁴	B	F	
	-With Improvements	TS	0	3	1>>	0	3	1>>	2	0	<u>2</u>	0	0	0	7.5	12.6	A	B	
SR-71 Fwy. SB Ramps (NS) at:																			
4	Pine Avenue (EW)	TS	0	0	0	0.5	0.5	1	0	1	1	1	2	0	58.1	-- ⁴	E	F	
	-With Improvements	TS	0	0	0	<u>1.5</u>	0.5	1	0	1	1	1	2	0	28.3	16.7	C	B	
SR-71 Fwy. NB Ramps (NS) at:																			
5	Pine Avenue (EW) ⁵	AWS	1	0	1	0	0	0	1	1	0	0	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	<u>TS</u>	1	0	1	0	0	0	1	1	0	0	1	1	24.8	12.2	C	B	
El Prado Road (NS) at:																			
6	Kimball Avenue (EW) ⁶	TS	1	1	1	1	1	1	1	1	0	0.5	0.5	1>	16.9	26.3	B	C	
7	Pine Avenue (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	<u>TS</u>	0	0	0	0	1	0	<u>1</u>	<u>1</u>	0	0	<u>2</u>	0	21.6	45.2	C	D	
Mountain Avenue (NS) at:																			
8	Kimball Avenue (EW) ⁶	TS	1	0	1	0	0	0	0	2	0	1	2	0	10.6	11.6	B	B	
9	Bickmore Avenue (EW)	CSS	0	1	0	1	1	0	0	0	0	1	0	1	10.8	10.3	B	B	
Euclid Avenue (SR-83) (NS) at:																			
10	Schaefer Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	0.5	0.5	1	41.4	-- ⁴	D	F	
	-With Improvements	TS	1	2	1	1	2	1	1	<u>2</u>	1	0.5	0.5	1	40.4	39.6	D	D	
11	Edison Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	1	<u>3</u>	1	<u>2</u>	<u>3</u>	1	<u>2</u>	<u>2</u>	1	<u>2</u>	<u>3</u>	<u>1</u>	35.8	43.6	D	D	
12	Eucalyptus Avenue (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements ⁶	TS	2	<u>3</u>	1	1	<u>3</u>	1	<u>2</u>	1	<u>1>></u>	1	1	0	36.3	38.7	D	D	

Table 4.15-8 (Cont.): General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)			Level of Service			
			North-Bound				South-Bound				East-Bound									West-Bound	
			L	T	R		L	T	R		L	T	R		L	T	R		AM	PM	AM
13	Merrill Avenue (EW)	TS	1	2	1		1	2	0	0	0	0	0	0	1	0		-- ⁴	11.0	F	B
	-With Improvements	TS	1	2	1		1	3	0	0	0	0	0	0	1	0	<u>1</u>	21.7	19.6	C	B
14	Kimball Avenue (EW)	TS	1	2	1		1	2	1	1	1	1	1	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F
	-With Improvements ⁶	TS	1	<u>3</u>	1		1	<u>3</u>	<u>1>></u>	<u>2</u>	1	1	1	<u>1>></u>	<u>2</u>	1	<u>1>></u>	39.7	44.7	D	D
15	Bickmore Avenue (EW)	CSS	1	1	1		1	1	1	1	0.5	0.5	1	1	1	1	-- ⁴	-- ⁴	F	F	
	-With Approved Geometry ⁶	<u>TS</u>	1	<u>4</u>	<u>2</u>		<u>2</u>	<u>4</u>	1	<u>1</u>	<u>1</u>	1	1	<u>0.5</u>	<u>0.5</u>	<u>1.5</u>	31.8	31.2	C	C	
16	Pine Avenue (EW)	TS	1	2	1		1	2	1	0.5	0.5	1>>	1>>	0.5	0.5	1	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	1	<u>3</u>	<u>1>></u>		<u>2</u>	<u>3</u>	1	<u>1</u>	<u>3</u>	1>>	1>>	<u>2</u>	<u>2</u>	1	40.9	40.7	D	D	
17	SR-71 Fwy. NB Ramps (EW)	TS	0	2	1>>		1	2	0	0	0	0	0	2	0	1>>	7.0	8.5	A	A	
Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:																					
18	SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW)	TS	0	2	1		1	2	1>>	1.5	0.5	1	1	1	0	1>	-- ⁴	19.7	F	B	
	-With Improvements	<u>TS</u>	0	<u>3</u>	1		<u>2</u>	2	1>>	1.5	0.5	1	1	1	0	<u>2></u>	26.2	28.1	C	C	
Sultana Avenue (NS) at:																					
19	Pine Avenue (EW)	CSS	0	0	0		0	<u>1</u>	0	1	1	0	0	0	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	TS	0	0	0		0	1	0	1	<u>2</u>	0	0	0	<u>2</u>	0	10.7	12.0	B	B	
Mill Creek Road (NS) at:																					
20	Kimball Avenue (EW)	CSS	1	0	1		0	0	0	0	1	0	1	1	1	0	-- ⁴	17.7	F	C	
	-With Improvements	<u>TS</u>	1	0	1		0	0	0	0	1	0	1	1	1	0	18.3	7.1	B	A	
21	Bickmore Avenue (EW)	AWS	0	1	0		1	1	0	0	1	0	1	0	1	0	13.0	30.1	B	D	
Chino Corona Road/Mill Creek Road (NS) at:																					
22	Pine Avenue (EW)	TS	1	1	0		1	<u>1</u>	0	<u>1</u>	1	1>>	1	1	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements (Split Phasing)	TS	<u>1.5</u>	<u>0.5</u>	0		1	1	0	1	<u>2</u>	1	1	1	2	0	32.6	44.0	C	D	
	-With Improvements (Standard Phasing)	TS	<u>2</u>	1	0		1	1	0	1	<u>2</u>	1	1	1	2	0	25.1	32.4	C	C	

Table 4.15-8 (Cont.): General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)			Level of Service	
			North-Bound			South-Bound			East-Bound			West-Bound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
Cucamonga Avenue (NS) at:																			
23	Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	22.9	-- ⁴	C	F	
	-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	27.0	30.0	C	C	
West Preserve Loop (NS) at:																			
24	Bickmore Avenue (EW)	AWS	0	1	0	0	1	0	0	1	0	0	<u>1</u>	0	17.1	17.8	C	C	
25	Pine Avenue (EW)	TS	0	<u>1</u>	0	1	<u>1</u>	0	1	1	0	<u>1</u>	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements ⁶	TS	<u>1</u>	1	0	1	1	0	1	<u>2</u>	0	1	<u>2</u>	0	25.5	19.4	C	B	
Main Street (NS) at:																			
26	Kimball Avenue (EW)	AWS	1	0	1	0	0	0	0	1	1	1	1	0	10.8	12.6	B	B	
27	Preserve Loop (EW)	AWS	0	1	0	0.5	1	1	1	1	0	1	1	0	9.4	10.3	A	B	
28	Bickmore Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	12.5	-- ⁴	B	F	
	-With Improvements	<u>AWS</u>	0	1	0	0	1	0	0	1	0	0	1	0	8.6	16.1	A	C	
29	Pine Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F	
	-With Improvements ⁶	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	1	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	20.3	21.4	C	C	
Main Street/ North East Site Access (NS) at:																			
30	Chino Corona Road (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	<u>1</u>	<u>1</u>	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	1	1	0	24.0	20.2	C	C	
East Preserve Loop (NS) at:																			
31	Bickmore Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	10.0	17.9	A	C	
32	Pine Avenue (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	1	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	53.1	48.2	D	D	
Hellman Avenue (NS) at:																			
33	Kimball Avenue (EW)	CSS	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F	
	-With Improvements	<u>TS</u>	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	1	<u>1</u>	<u>1</u>	1	0	31.4	52.1	C	D	

Table 4.15-8 (Cont.): General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)			Level of Service			
			North-Bound				South-Bound				East-Bound									West-Bound	
			L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
34	Pine Avenue/Schleisman Road (EW) -With Planned Ultimate Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	-- ⁴	-- ⁴	F	F
		<u>TS</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	36.7	40.4	D	D
35	Chino Corona Road/Chandler Street (EW) -With Improvements	CSS	0	1	0	0	1	0	0	0.5	1	0	0.5	1	0	1	0	-- ⁴	-- ⁴	F	F
		<u>TS</u>	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	<u>1</u>	1	0	28.6	54.1	C	D
36	River Road (EW) -With Improvements	CSS	1	0	1	0	0	0	0	0	1	0	0.5	0.5	0	0.5	0	81.6	-- ⁴	F	F
		<u>TS</u>	1	0	1	0	0	0	0	0	1	0	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	0	13.3	34.3	B	C
Archibald Street (NS) at:																					
37	Schleisman Road (EW) -With Improvements	TS	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	-- ⁴	-- ⁴	F	F
		TS	1	1	1	<u>2</u>	<u>2</u>	0	1	<u>3</u>	0	1	<u>3</u>	0	1	<u>3</u>	0	53.8	48.3	D	D
38	Chandler Street (EW) ⁶	TS	1	2	1	1	2	0	1	2	1	1	2	1	1	2	1	35.8	35.2	D	D
39	River Road (EW) -With Improvements	CSS	1	1	0	0	1	1	1	1	0	1	0	0	0	0	0	-- ⁴	-- ⁴	F	F
		<u>TS</u>	<u>2</u>	1	0	0	1	1	1	1	0	1	1	0	0	0	0	29.6	24.6	C	C
River Road (NS) at:																					
40	Bluff Street (EW) -With Improvements	TS	1	1	0	1	2	0	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F
		TS	1	<u>2</u>	0	1	2	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	<u>1</u>	<u>1</u>	0	34.3	37.5	C	D
41	Country Club Lane/Second Street (EW)	TS	1	2	1	1	2	1	1	1	1	1	1	1	1	1	0	37.5	34.7	D	C
Lincoln Avenue (NS) at:																					
42	Pomona Road (EW)	TS	2	2	0	1	2	0	1	0.5	1.5	1	1	1	1	1	0	44.1	42.0	D	D
43	SR-91 Fwy. EB Ramps (EW) -With Improvements	TS	1	2	1	1	2	0	0	1	0	0.5	0.5	1	0.5	0.5	1	-- ⁴	32.3	F	C
		TS	1	2	<u>1</u>	<u>1</u>	2	0	0	1	0	0.5	0.5	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	37.9	26.5	D	C
Harrison Avenue (NS) at:																					
44	Schleisman Road (EW) -With Improvements	AWS	1	1	1	0	1	0	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	-- ⁴	-- ⁴	F	F
		<u>TS</u>	1	1	1	<u>1</u>	1	0	<u>1</u>	<u>3</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	37.3	37.9	D	D

Table 4.15-8 (Cont.): General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)		Level of Service		
		North-Bound			South-Bound			East-Bound			West-Bound							
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
Sumner Avenue (NS) at:																		
45 Schleisman Road (EW)	AWS	0	1	0	0	1	1	1	0	1	0	0	<u>1</u>	0	-- ⁴	-- ⁴	F	F
-With Improvements	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	1	<u>3</u>	0	<u>1</u>	<u>2</u>	0	<u>52.5</u>	42.7	D	D	
Cleveland Avenue (NS) at:																		
46 Schleisman Road (EW)	AWS	0	1	0	0.5	0.5	0	0	<u>1</u>	0	1	<u>1</u>	0	-- ⁴	-- ⁴	F	F	
-With Improvements ⁶	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	<u>1</u>	<u>1</u> ≥	<u>1</u>	<u>3</u>	0	1	<u>2</u>	0	44.7	44.5	D	D	
Hamner Avenue (NS) at:																		
47 Schleisman Road (EW)	TS	1	2	1	1	2	1	1	1	0	1	1	0	44.1	-- ⁴	D	F	
-With Improvements	TS	1	<u>3</u>	1	1	<u>3</u>	1	1	<u>3</u>	0	1	1	0	43.1	48.5	D	D	
I-15 Fwy. SB Ramps (NS) at:																		
48 Limonite Avenue (EW)	TS	0	0	0	1	1	1	0	2	1	2	2	0	25.5	27.2	C	C	
I-15 Fwy. SB Ramps (NS) at:																		
49 Schleisman Road (EW)	<u>TS</u>	0	0	0	<u>1</u>	0	<u>1</u>	0	<u>2</u>	<u>1</u> >>>	<u>2</u>	<u>2</u>	0	16.3	20.2	B	C	
I-15 Fwy. NB Ramps (NS) at:																		
50 Limonite Avenue (EW)	TS	1	1	1	0	0	0	2	2	0	0	2	1	28.7	33.7	C	C	
I-15 Fwy. NB Ramps (NS) at:																		
51 Schleisman Road (EW)	<u>TS</u>	<u>1</u>	0	<u>1</u>	0	0	0	<u>1</u>	<u>2</u>	0	0	1	<u>1</u>	26.3	50.7	C	D	
Cucamonga Avenue (NS) at:																		
52 West Site Access (EW)	<u>CSS</u>	0	<u>1</u>	0	0	<u>1</u>	0	0	0	0	0	<u>1</u>	0	9.4	8.9	A	A	
North West Site Access (NS) at:																		
53 Chino Corona Road (EW)	CSS	0	<u>1</u>	0	0	0	0	0	<u>1</u>	0	<u>1</u>	<u>1</u>	0	16.4	17.3	C	C	

Table 4.15-8 (Cont.): General Plan Buildout (Post-2030) With Proposed Project Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)			Level of Service			
		North-Bound				South-Bound				East-Bound									West-Bound	
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM

Notes:

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left T = Through R = Right >>> = Free Right Turn > = Right Turn Overlap.

² Delay and level of service calculated using the following analysis software: Traffic, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop.

⁴ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".

⁵ Configuration reflects Pine Avenue extension to El Prado Road.

⁶ Pedestrians are assumed not to occur on every cycle.

Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.

The improvements for General Plan Buildout (Post-2030) With Proposed Project conditions are not identical to the improvements required for General Plan Buildout (Post-2030) Without Project conditions. For General Plan Buildout (Post-2030) With Proposed Project conditions, additional improvements are required at the following locations:

- Euclid Avenue (SR-83) (NS) at
 - Kimball Avenue (EW)
 - Pine Avenue (EW)
- Chino Corona Road (NS) at
 - Pine Avenue (EW)
- Cucamonga Avenue (NS) at
 - Chino Corona Road (EW)
 - West Site Access (EW)
- Main Street/North East Site Access (NS) at:
 - Chino Corona Road (EW)

Hellman Avenue at Chino Corona Road/Chandler Street Reconfiguration

Additional analysis has been performed to evaluate the reconfiguration of Hellman Avenue at Chino Corona Road/Chandler Street as two separate intersections. Urban Crossroads evaluated the impacts of Hellman Avenue at Chino Corona Road as a ‘T’ intersection north of the Hellman Avenue at Chandler Street “T” intersection.

Table 4.15-9 presents the LOS and delay for the two intersections of Hellman Avenue at Chino Corona Road and Hellman Avenue at Chandler Street. As indicated in Table 4.15-9, these intersections will operate acceptably with the installation of warranted traffic signals.

$y^2(\text{Secs.})$	Level of Service		
	PM	AM	PM
		B	D
	35.1		
		B	C
	20.2		

Notes:

- 1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

Average intersection delay
service for worst individual

Main Street at Chino Corona Road Reconfiguration

Additional analysis was also performed to evaluate the elimination of Main Street as a public road between the Preserve Loop Road and Chino Corona Road. The proposed configuration will eliminate the north leg of Main Street at Chino Corona Road. Traffic formerly using Main Street would be diverted to B Street via Hellman Avenue or Cucamonga Avenue. Future traffic operations have been evaluated to analyze the effects of this reconfiguration for the following four affected intersections under 2030 With Project conditions:

- Cucamonga Avenue (NS) at Chino Corona Road (EW)
- North West Access (NS) at Chino Corona Road (EW)
- Main Street/North East Site Access (NS) at Chino Corona Road (EW)
- Hellman Avenue (NS) at Chino Corona Road/Chandler Street (EW)

Table 4.15-10 presents the LOS and delay for the four intersections evaluated for this sensitivity analysis. As indicated in Table 4.15-10, all four intersections evaluated in this sensitivity analysis will operate acceptably.

Table 4.15-10: General Plan Buildout (Post-2030) With Project Conditions

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)				Level of Service	
		North-Bound			South-Bound			East-Bound			West-Bound								
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
Cucamonga Avenue (NS) at:																			
23	Chino Corona Road (EW)	<u>TS</u>	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	<u>1</u>	1	0	25.2	34.1	C	C	
North West Site Access (NS) at:																			
53	Chino Corona Road (EW)	CSS	0	<u>1</u>	0	0	0	0	<u>1</u>	0	<u>1</u>	<u>1</u>	0	0	17.0	20.5	C	C	
North East Site Access (NS) at:																			
30	Chino Corona Road (EW)	<u>TS</u>	0	<u>1</u>	0	0	0	0	0	<u>1</u>	0	<u>1</u>	<u>1</u>	0	12.4	14.6	B	B	
Hellman Avenue (NS) at:																			
35	Chino Corona Road / Chandler Street (EW)	<u>TS</u>	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>2</u>	0	<u>1</u>	<u>1</u>	0	<u>1</u>	1	0	30.1	43.5	C	D	
Notes:																			
¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.																			
L = Left T = Through R = Right <u>1</u> = improvement																			
² Delay and level of service calculated using the following analysis software: Traffic, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.																			
³ TS = Traffic Signal CSS = Cross Street Stop																			
Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.																			

Main Street at Chino Corona Road Relocation

Additional analysis has also been performed to evaluate the relocation of Main Street west of the Edgewater Project's access roads. Project traffic is not expected to use Main Street under Interim Year (2019) conditions. Traffic formerly using the north easterly Project access (formerly Main Street at Chino Corona Road) to travel north on Main Street will tend to utilize the northwesterly access in order to travel north on Main Street to the Preserve Loop and areas to the northeast of the Project. Future traffic operations have been evaluated to analyze the effects of this reconfiguration for the following affected intersections under 2030 With Project conditions:

- Main Street [relocated] (NS) at Chino Corona Road (EW)
- North West Access (NS) at Chino Corona Road (EW)
- North East Access (NS) at Chino Corona Road (EW)

Table 4.15-11 presents the LOS and delay for the intersections evaluated for this sensitivity analysis. As indicated in Table 4.15-11, all affected intersections evaluated in this sensitivity analysis will operate acceptably with improvements. The improvements required consist of a traffic signal at the northwesterly access. Vehicle queuing at closely spaced intersections should be evaluated in greater detail in conjunction with the proposed Main Street relocation application (once an actual alignment is available). However, the relocation does not create a conflict for "back to back" left turns and there should not be queuing issues.

Chino Creek Bridge

The Project will generate 49 percent of the total new traffic predicted to utilize a future Chino Creek Bridge (2,440 Project Traffic/5,026 Total New Traffic). The Project percentage of cost is, therefore, 49 percent.

Freeway Improvements

Freeways serving the Project site are I-15 and SR-71, SR-91, and SR-60. Freeway improvements and provision of the number of lanes necessary to provide an adequate level of service for freeway segments are based on obtaining adequate funding. The Traffic Impact Analysis prepared by Urban Crossroads did not analyze freeway segments to be effected by Project traffic, nor was a Project fair-share contribution identified to offset impacts to freeway segments. However, various regional transportation studies have identified long-range anticipated peak hour operational deficiencies on study area freeways, particularly the SR-91 Freeway. At the same time, no mechanisms are currently in place for individual projects to contribute to specific freeway improvements. Therefore, it can be expected that Project traffic would contribute to the significant and cumulatively adverse traffic conditions along freeway segments identified in the Specific Plan EIR for buildout of the Specific Plan area.

**Table 4.15-11: General Plan Buildout (Post-2030) With Project Conditions
Main Street Relocation (West of Chino Corona Road Access) Intersection Sensitivity Analysis Summary**

Intersection		Traffic Control ³	Intersection Approach Lanes ¹												Delay ² (Secs.)		Level of Service									
			North-Bound				South-Bound				East-Bound								West-Bound							
			L		T		R		L		T		R		L		T		R		L		T		R	
			L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
Main Street (NS) at:																										
30	Chino Corona Road (EW)		<u>CSS</u>		0	0	0	0	0	<u>1</u>	0	0	0	<u>1</u>	0	0	0	<u>1</u>	0	34.1	-- ⁴	D	F			
	-With Improvements		<u>TS</u>		0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	15.6	9.8	A	A			
North West Site Access (NS) at:																										
53	Chino Corona Road (EW)		CSS		0	<u>1</u>	0	0	0	0	0	0	0	<u>1</u>	0	<u>1</u>	0	0	22.2	42.7	C	E				
	-With Improvements		<u>TS</u>		0	1	0	0	0	0	0	0	0	1	0	1	1	0	7.9	7.1	A	A				
North East Site Access (NS) at:																										
54	Chino Corona Road (EW)		CSS		0	<u>1</u>	0	0	0	0	0	0	0	<u>1</u>	0	<u>1</u>	0	0	11.5	17.0	B	C				
Notes:																										
¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.																										
L = Left T = Through R = Right <u>1</u> = improvement																										
² Delay and level of service calculated using the following analysis software: Traffic, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.																										
³ TS = Traffic Signal																										
Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.																										

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

Table 4.15-12 indicates the needed General Plan Buildout (Post-2030) improvements for the Traffic Impact Analysis study area intersections, and the Project fair share contribution towards the required improvements, based on the Project's percent of new traffic. A Project fair share contribution for a Chino Corona Road bridge structure crossing Mill Creek based on Project percentage of new traffic is not shown in Table 4.15-12 and is additional. Mitigation measure T-3 below addresses payment of fair share fees for Traffic Impact Analysis study area intersections based on new Project-related traffic.

T-3 The Project applicant shall pay fair share fees, to be established by the City of Chino, for improvements to the Post-2030 circulation network to accommodate Project traffic.

Outside of local, state and federal funding sources, no mechanisms are currently in place for local contributions to freeway improvements on a project-by-project basis. Similarly, no mechanisms or interagency agreements exist to address full funding and construction of offsite intersection improvements needed by cumulative projects and regional growth.

With implementation of Mitigation Measures T-1 through T-3, including requirement for payment of fair share contributions for road improvements within the Traffic Impact Analysis study area, cumulative traffic impacts will be reduced, but not to less than significant levels.

Level of Significance After Mitigation

Significant.

Table 4.15-12: General Plan Buildout (Post-2030) Project Fair Share for Improvements

Intersection	Total Cost	Peak Hour	Existing Traffic	Buildout With Project Traffic	Buildout Project Traffic	Total New Traffic	Project % of New Traffic	(A) AM Project Cost Share	(B) PM Project Cost Share	Higher of (A) or (B)
Central Avenue (NS) at:										
3 SR-71 Fwy. SB Ramps (EW)	\$50,000	AM PM	2,965 3,308	4,504 5,020	7 9	1,539 1,712	0.45% 0.53%	\$227	\$263	\$263
SR-71 Fwy. SB Ramps (NS) at:										
4 Pine Avenue (EW)	\$50,000	AM PM	626 555	2,019 2,320	79 90	1,393 1,765	5.67% 5.10%	\$2,836	\$2,549	\$2,836
SR-71 Fwy. NB Ramps (NS) at:										
5 Pine Avenue (EW)	\$749,720	AM PM	387 247	2,851 2,726	140 161	2,464 2,479	5.68% 6.50%	\$42,605	\$48,697	\$48,697
El Prado Road (NS) at:										
7 Pine Avenue (EW)	\$739,720	AM PM	0 0	2,450 2,361	140 161	2,450 2,361	5.71% 6.82%	\$42,270	\$50,443	\$50,443
Euclid Avenue (SR-83) (NS) at:										
10 Schaefer Avenue (EW)	\$289,720	AM PM	2,536 2,489	4,439 4,821	28 35	1,903 2,332	1.47% 1.50%	\$4,263	\$4,348	\$4,348
11 Edison Avenue (EW)	\$1,648,600	AM PM	3,078 3,032	6,380 7,020	41 53	3,302 3,988	1.24% 1.33%	\$20,470	\$21,910	\$21,910
12 Eucalyptus Avenue (EW)	\$679,440	AM PM	2,301 1,995	4,378 5,276	63 78	2,077 3,281	3.03% 2.38%	\$20,609	\$16,152	\$20,609
13 Merrill Avenue (EW)	\$364,720	AM PM	2,614 2,207	4,363 5,008	62 78	1,749 2,801	3.54% 2.78%	\$12,929	\$10,156	\$12,929

Table 4.15-12 (Cont.): General Plan Buildout (Post-2030) Project Fair Share for Improvements

Intersection	Total Cost	Peak Hour	Existing Traffic	Buildout With Project Traffic	Buildout Project Traffic	Total New Traffic	Project % of New Traffic	(A) AM Project Cost Share	(B) PM Project Cost Share	Higher of (A) or (B)
14 Kimball Avenue (EW)	\$814,440	AM PM	2,535 2,005	4,749 5,014	77 95	2,214 3,009	3.48% 3.16%	\$28,325	\$25,713	\$28,325
15 Bickmore Avenue (EW)	\$2,508,320	AM PM	1,870 1,574	3,660 4,215	28 35	1,790 2,641	1.56% 1.33%	\$39,236	\$33,242	\$39,236
16 Pine Avenue (EW)	\$1,973,320	AM PM	2,480 2,338	5,484 6,442	236 259	3,004 4,104	7.86% 6.31%	\$155,028	\$124,535	\$155,028
Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:										
18 SR-71 Fwy. SB Off-Ramp/Shady View Drive (EW)	\$389,720	AM PM	3,543 1,677	5,376 2,843	11 22	1,833 1,166	0.60% 1.89%	\$2,339	\$7,353	\$7,353
Sultana Avenue (NS) at:										
19 Pine Avenue (EW)	\$1,079,440	AM PM	0 0	2,950 4,104	270 304	2,950 4,104	9.15% 7.41%	\$98,796	\$79,959	\$98,796
Mill Creek Road (NS) at:										
20 Kimball Avenue (EW)	\$400,000	AM PM	527 259	1,336 872	55 69	809 613	6.80% 11.26%	\$27,194	\$45,024	\$45,024
Chino Corona Road./Mill Creek Road (NS) at:										
22 Pine Avenue (EW)	\$1,233,880	AM PM	1,362 1,496	3,852 4,636	368 423	2,490 3,140	14.78% 13.47%	\$182,379	\$166,220	\$182,379
Cucamonga Avenue (NS) at:										
23 Chino Corona Road (EW)	\$640,000	AM PM	592 652	1,211 1,269	375 432	619 617	60.63% 69.99%	\$388,036	\$447,959	\$447,959

Table 4.15-12 (Cont.): General Plan Buildout (Post-2030) Project Fair Share for Improvements

Intersection	Total Cost	Peak Hour	Existing Traffic	Buildout With Project Traffic	Buildout Project Traffic	Total New Traffic	Project % of New Traffic	(A) AM Project Cost Share	(B) PM Project Cost Share	Higher of (A) or (B)
52 West Site Access (NS) ¹	\$579,440	AM PM	0 0	389 383	285 319	389 383	73.26% 83.29%	\$424,525	\$482,615	\$482,615
West Preserve Loop (NS) at:										
25 Pine Avenue (EW)	\$1,114,020	AM PM	1,221 1,064	3,329 3,555	7 9	2,108 2,491	0.33% 0.36%	\$3,699	\$4,024	\$4,024
North West Site Access (NS) at:										
53 Chino Corona Road (EW) ¹	\$629,440	AM PM	0 0	821 887	111 138	821 887	13.52% 15.56%	\$85,101	\$97,929	\$97,929
Main Street (NS) at:										
28 Bickmore Avenue (EW)	\$1,158,880	AM PM	0 0	473 1,047	37 26	473 1,047	7.82% 2.48%	\$90,652	\$28,778	\$90,652
29 Pine Avenue (EW)	\$2,338,320	AM PM	0 0	3,134 3,521	65 70	3,134 3,521	2.07% 1.99%	\$48,497	\$46,487	\$48,497
Main Street / North East Site Access (NS) at:										
30 Chino Corona Road (EW) ¹	\$1,419,160	AM PM	0 0	1,242 1,636	324 432	1,242 1,636	26.09% 26.41%	\$370,216	\$374,742	\$374,742
East Preserve Loop (NS) at:										
32 Pine Avenue (EW)	\$1,758,880	AM PM	0 0	3,080 3,556	21 35	3,080 3,556	0.68% 0.98%	\$11,992	\$17,312	\$17,312

Table 4.15-12 (Cont.): General Plan Buildout (Post-2030) Project Fair Share for Improvements

Intersection	Total Cost	Peak Hour	Existing Traffic	Buildout With Project Traffic	Buildout Project Traffic	Total New Traffic	Project % of New Traffic	(A) AM Project Cost Share	(B) PM Project Cost Share	Higher of (A) or (B)
Hellman Avenue (NS) at:										
33 Kimball Avenue (EW)	\$2,173,600	AM PM	0 0	2,285 3,971	55 62	2,285 3,971	2.41% 1.56%	\$52,319	\$33,937	\$52,319
34 Pine Avenue./Schleisman Road (EW)	\$3,327,760	AM PM	1,329 1,016	4,543 5,680	112 131	3,214 4,664	3.48% 2.81%	\$115,968	\$93,468	\$115,968
35 Chino Corona Road/Chandler Street (EW)	\$1,823,740	AM PM	868 782	2,557 3,376	214 242	1,689 2,594	12.67% 9.33%	\$231,031	\$170,167	\$231,031
36 River Road (EW)	\$594,860	AM PM	568 508	2,020 2,475	90 95	1,452 1,967	6.20% 4.83%	\$36,879	\$28,730	\$36,879
Archibald Street (NS) at:										
37 Schleisman Road (EW)	\$1,498,600	AM PM	1,837 1,734	3,960 4,706	70 87	2,123 2,972	3.30% 2.93%	\$49,424	\$43,875	\$49,424
39 River Road (EW)	\$525,000	AM PM	1,593 1,615	2,894 3,363	90 95	1,301 1,748	6.92% 5.43%	\$36,313	\$28,529	\$36,313
River Road (NS) at:										
40 Bluff Street (EW)	\$889,160	AM PM	1,671 1,727	2,903 3,455	91 95	1,232 1,728	7.39% 5.50%	\$65,687	\$48,880	\$65,687
Lincoln Avenue (NS) at:										
43 SR-91 Fwy. EB Ramps (EW)	\$50,000	AM PM	2,633 2,756	3,821 3,358	18 9	1,188 602	1.51% 1.50%	\$757	\$748	\$757

Table 4.15-12 (Cont.): General Plan Buildout (Post-2030) Project Fair Share for Improvements

Intersection	Total Cost	Peak Hour	Existing Traffic	Buildout With Project Traffic	Buildout Project Traffic	Total New Traffic	Project % of New Traffic	(A) AM Project Cost Share	(B) PM Project Cost Share	Higher of (A) or (B)
Harrison Avenue (NS) at:										
44 Schleisman Road (EW)	\$1,813,740	AM PM	997 860	3,215 4,106	49 61	2,218 3,246	2.21% 1.88%	\$40,065	\$34,089	\$40,065
Summer Avenue (NS) at:										
45 Schleisman Road (EW)	\$1,998,600	AM PM	864 798	3,197 4,201	49 61	2,333 3,403	2.10% 1.79%	\$41,969	\$35,824	\$41,969
Cleveland Avenue (NS) at:										
46 Schleisman Road (EW)	\$2,178,460	AM PM	823 437	2,935 3,633	42 52	2,112 3,196	1.99% 1.63%	\$43,322	\$35,448	\$43,322
Hamner Avenue (NS) at:										
47 Schleisman Road (EW)	\$1,158,880	AM PM	1,657 1,900	3,350 5,361	42 52	1,693 3,461	2.48% 1.50%	\$28,750	\$17,412	\$28,750
I-15 Fwy. SB Ramps (NS) at:										
49 Schleisman Road (EW)	\$2,500,000	AM PM	0 0	2,067 2,889	27 34	2,067 2,889	1.31% 1.18%	\$32,656	\$29,422	\$32,656
I-15 Fwy. NB Ramps (NS) at:										
51 Schleisman Road (EW)	\$2,500,000	AM PM	0 0	2,121 2,600	20 21	2,121 2,600	0.94% 0.81%	\$23,574	\$20,192	\$23,574
Off-Site Project Fair Contribution Total									\$2,900,938	\$3,080,618

Notes:

¹ Cost does not include On-Site Improvements.

Source: Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised) City of Chino, California. November 16, 2007.

4.15.5 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5 for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4 of this Draft EIR. Table 4.15-13 shows the relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Transportation.

Table 4.15-13: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Transportation

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
T-1. Interim Year (2019) Fair Share Contribution.	T-9. Required Traffic Studies and Traffic Improvements	Project Traffic Impact Analysis has been prepared. Required improvements to mitigate Project traffic impacts have been identified.
T-2. Project Circulation and Landscape Improvements	T-2. Internal Roadway Improvements	Project complies, providing for construction of all internal roadway improvements.
T-3. General Plan Buildout (Post-2030) Fair Share Contribution.	T-9. Required Traffic Studies and Traffic Improvements	Project Traffic Impact Analysis has been prepared. Required improvements to mitigate Project traffic impacts have been identified
NOP was distributed to local and regional entities. Draft EIR will also be provided.	T-1. Notification of Local and Regional Entities.	Project is in compliance. No conflict between The Preserve EIR and the Project.
	T-3. Cooperation with SCAG and SANBAG	No conflict between The Preserve EIR and the Project.
	T-4. Regional and/or Subregional Facility Cost Sharing	No conflict between The Preserve EIR and the Project.
	T-5. Traffic Operations and Traffic System Management Improvements.	No conflict between The Preserve EIR and the Project.
	T-6. Individual Development Project Review	Project is undergoing continuing review by the City for transportation/traffic issues.
	T-7. Transit Feasibility Study	No conflict between The Preserve EIR and the Project.
	T-8. Expansion of Transit Services	No conflict between The Preserve EIR and the Project.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area.		

4.16 - Utilities and Service Systems

4.16.1 - Introduction

This section describes the existing utilities and service systems and potential effects from Project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the following technical reports, together with correspondence from utility providers (included in this EIR as Appendix H, Hydrology and Water Quality, and Appendix K, Utilities and Service Systems):

- Preliminary Hydrology and Hydraulic Calculations for City of Chino Edgewater Project, prepared in January 2008 by Huitt-Zollars, Inc.
- Sewer Master Plan Update Report, Subareas 1 and 2, prepared in November 2007 by Bureau Veritas North America, Inc.
- Storm Drain Master Plan Update Report, Subarea 2, prepared in December 2007 by Bureau Veritas North America, Inc.
- Water Supply Assessment for the Edgewater Communities, prepared in October 2007 by Dudek.
- Water System Master Plan Update for the Edgewater Development, prepared in October 2007 by MWH.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments on utilities and service systems were contained in letters submitted to the City.

4.16.2 - Existing Conditions

Water Supply

The City of Chino Water Utility (Water Utility) would be the water purveyor for the Project site. The City currently receives approximately 42 percent of its water supply from groundwater, 20 percent from imported water, 22 percent from desalted water, and 16 percent from recycled water.

Groundwater is produced from the Chino Groundwater Basin (Basin). The Basin was adjudicated in 1978, which allocated water production rights to water producers. The City's current groundwater production right as a share of the safe yield of the Basin is 4,034 acre-feet per year (AFY). The City does, however, have the ability to obtain annual adjustments to its allocated production capability.

The City receives imported water from the Imported State Water Project (SWP), which is received from the Metropolitan Water District of Southern California (MWD) through the Inland Empire Utilities Agency (IEUA) and the Water Facilities Authority (WFA). IEUA is a wholesale distributor of water and recycled water as well as a wastewater services provider. The City's imported water deliveries are treated by the WFA at its Agua de Lejos Treatment Plant located in Upland, California.

The City is entitled to 5.9 percent of the treatment plant capacity; current City of Chino entitlement equals 5,353 AFY.

Desalted water is received from the Chino Basin Desalter Authority's (CDA) Chino I Desalter. The City's allocation is 5,000 AFY.

Recycled water is supplied to the City by IEUA through the Regional Recycled Water Distribution System. The IEUA operates four regional wastewater treatment plants. These are RP-1, RP-4, RP-5, and the Carbon Canyon Water Recycling Facility, which is the predominant supplier of recycled water to Chino and which has a capacity in excess of 11,000 acre-feet/year of reliable non-potable recycled water. In 2005, the City provided approximately 3,365 AF of the recycled water to industrial, landscape irrigation, and agricultural customers. The City's limited recycled water infrastructure is expected to be expanded with continued development of The Preserve Specific Plan area, College Park, and the proposed Project, if approved, as well as conversions of potable water use to recycled water use.

Existing water use at the Project site is estimated in Table 4.16-1.

Table 4.16-1: Existing Water Use

Use	Units/Area	Consumption Factor ¹	Total Demand (AF/yr)
Residences	3 du (occupied)	0.002 AF/du/day	2.2 AF/yr
Dairy	52 acres ²	0.006 AF/acre/day	113.9 AF/yr
Agricultural Land (When not Fallow)	221 acres ²	3.0 AF/acre/yr ³	663.0 AF/yr
Total			779.1 AF/yr
Notes: du = dwelling unit AF = acre-feet yr = year ¹ Water consumption factors taken from Kern County, California, Moore Dairy EIR, October 2001. ² Total area of approximately 52 acres contains concentration of dairy facilities within Project site. Remaining area of Project site is counted as agricultural land. ³ Utilizes lowest factor for typical agricultural water use based on blending of liquid dairy waste with water to irrigate agricultural fields.			

Wastewater

The Project site presently contains a system for the collection and handling of wastewater associated with dairy operations. Wastewater and storm water runoff from four adjacent dairies is also currently accepted. Water is managed using onsite percolation/evaporation and/or irrigation through the use of manmade ponds. Onsite homes have residential leach fields as septic systems. No wastewater is collected from the site for conveyance and treatment.

The City of Chino owns, operates and maintains the wastewater collections system within the City. IEUA operates a regional wastewater collection system for the delivery of sewage from member cities or water districts to treatment plants. Wastewater services provided by IEUA include collection

through regional wastewater interceptors, two non-reclaimable waste pipeline systems, treatment at four regional treatment plants, biosolids management and other related utility services. The City of Chino is a member agency with IEUA, which accepts and treats all wastewater produced within the City. IEUA RP-5, located at the southeast corner of Kimball Avenue and El Prado Road, would provide tertiary wastewater treatment for any future wastewater generated on the Project site.

The Project site is contained within a study area comprising 11.6 square miles addressed in the Sewer Master Plan Update Report, Subareas 1 and 2 (Bureau Veritas North America, Inc., November 2007, contained in Appendix K). The area studied by Bureau Veritas in the Sewer Master Plan Update Report is located in the southerly portion of the City of Chino, bounded by SR-71 to the west, Kimball and Merrill Avenues to the north, Hellman Avenue to the east, and Riverside County Line through Prado Regional Park to the south.

Storm Water and Drainage

Currently, stormwater on the Project site, as well as wastewater from the onsite and adjacent dairies, is managed using the manmade ponds. The Project site generally slopes from north to south.

The Project site is contained within a study area comprising 8.8 square miles addressed in the Storm Drain Master Plan Update Report, Subarea 2 (Bureau Veritas North America, Inc., December 2007, contained in Appendix K). The area studied by Bureau Veritas in the Storm Drain Master Plan Update Report is comprised of agricultural and open space property adjacent to Cucamonga Creek Channel and upstream of the US Army Corps of Engineers (USACE) Prado Flood Control Basin. Over half (approximately 4.5 square miles) of this Bureau Veritas study area lies below the 566' High Water Elevation of the Prado Basin, and therefore within the impoundment area of Prado Dam.

Solid Waste

Waste Management of the Inland Empire (Waste Management) provides solid waste collection and disposal for the City of Chino. Waste Management owns three operating facilities located in Riverside and San Bernardino Counties. After the waste is collected and processed by Waste Management, it is disposed of at El Sobrante Landfill, located at 10910 Dawson Canyon Road, Corona which is owned and operated by the Riverside County Solid Waste Management Department and is expected to remain open to waste disposal until approximately 2030.

As of November 2007, the City contracted with Viramontes Express/Red Star Fertilizer, a green/wood waste grinding, sizing, and screening facility, to dispose of the City's residential green waste. This facility is located at 17130 Hellman Avenue, Corona. Viramontes Express/Red Star Fertilizer is regulated by the Local Enforcement Agency (LEA) under Tier I of the State's Minimum Standard limiting green waste material at any given time to 12,500 cubic yards. Daily tonnages for this facility vary from day to day with seasonal variations, increased volumes of materials from utility agencies, county contracts, and current construction. Viramontes Express receives 300 tons per day or 1,450 cubic yards of green/wood waste material. Red Star Fertilizer receives 225 tons or 360 cubic

yards of manure per day that is blended with the processed green/wood waste material. Once the manure and green waste are blended, it is estimated that 220 tons of marketable soil amendment are expedited off the property daily for distribution. The daily averages are well below the limit of 12,500 cubic yards per day. The City on average generates 50 tons per day of green waste material. An estimate of existing solid waste generation on the Project site is presented in Table 4.16-2.

Table 4.16-2: Existing Daily Solid Waste Generation

Land Use	Units/Area	Generation Factor	Total Demand (TPD)
Residences	3 du (occupied)	12.23 lbs/du/day	0.02
Dairy	50,000 sf	5 lbs/1000 sf/day	0.13
Total			0.15
Notes: du = dwelling unit TPD = tons per day sf = square feet lbs/du/day = pounds per dwelling unit per day lbs/sf/day = pounds per square feet per day Square footage of dairy facility is assumed to be 50,000 sf based on total area of concentration of dairy facilities within Project site and percentage of area that could be expected to be occupied by dairy facilities based on typical small-scale dairy facility layouts (less than 1000 cows) in the Central Valley in California. Source: California Integrated Waste Management Board, Solid Waste Generation Rates (Residential and Industrial), 2008.			

Electricity

Southern California Edison (SCE) provides electricity to 430 cities and communities in 50,000 square miles of service area, encompassing 11 counties in central, coastal and Southern California. SCE currently provides electricity to the citizens, businesses, and industries within the City of Chino. Electrical power from the transmission grid is delivered to the City of Chino by way of the Chino “bulk power” substation. At the “bulk power” station, power is dampened and converted from 220 kv to 66kv. From there, the Chino substation delivers 770,000 kilowatts of power to its service radius, of which the Project site is included. An SCE right-of-way is delineated in base maps for the Project site; however, this easement is no longer in place. The easement was abandoned and sold back to the landowner by SCE, but the deeds were not recorded with San Bernardino County; hence, mapping still reflects the existence of an easement.

SCE would extend electric service to the Project in accordance with rules and policies for extension of service on file with the California Public Utilities Commission. Table 4.16-3 provides an estimate of the existing daily electrical demand on the Project site.

Table 4.16-3: Existing Daily Electrical Demand

Land Use	Units/Area	Generation Factor ¹	Total Demand (million kwh/yr)
Residences	3 du (occupied)	5,526.50 kwh/du/yr	0.02
Dairies	50,000 sf ² (approx.)	10.50 kwh/sf/yr	0.53

Table 4.16-3 (Cont.): Existing Daily Electrical Demand

Land Use	Units/Area	Generation Factor ¹	Total Demand (million kwh/yr)
Total			0.55
Notes: du = Dwelling Unit kwh = kilowatt sf = square feet kwh/sf/yr = kilowatt hours per square foot per year. kwh/du/yr = kilowatts per dwelling unit per year. ¹ Electricity consumption factors taken from City of Ontario, Rich Haven Specific Plan EIR, July 2007. ² Square footage of dairy facility is assumed to be 50,000 sf based on total area of concentration of dairy facilities within Project site and percentage of area that could be expected to be occupied by dairy facilities based on typical small-scale dairy facility layouts (less than 1000 cows) in the Central Valley in California.			

Natural Gas

The Southern California Gas Company provides natural gas service to the area and would extend service to the Project site at the time contractual arrangements are made in accordance with Gas Company policies and extension rules on file with the California Public Utilities Commission. As a public utility, the Southern California Gas Company is under jurisdiction of federal regulatory agencies. Should those agencies take action that affects gas supply or the condition under which service is available, natural gas service would be provided in accordance with revised conditions.

Table 4.16-4 provides an estimate of the existing daily natural gas demand on the Project site.

Table 4.16-4: Existing Annual Natural Gas Demand

Land Use	Units/Area	Consumption Factor	Total Demand (mcf/yr)
Residences	3 du (occupied)	6,665 cf/du/mo ²	0.24
Dairies	50,000 sf ¹ (approx.)	110.0 cf/day/1,000 sf ³	2.01
Total			2.25
Notes: du = dwelling unit sf = square feet mcf/yr = million cubic feet per year cf = cubic feet yr = year ¹ Square footage of dairy facility is assumed to be 50,000 sf based on total area of concentration of dairy facilities within Project site and percentage of area that could be expected to be occupied by dairy facilities based on typical small-scale dairy facility layouts (less than 1000 cows in California). ² Single-family residential natural gas consumption factor taken from California Air Resources Board Land Use Emissions Model (URBEMIS 2007, Version 9.2). ³ Dairy natural gas consumption factor taken from City of Ontario, Rich Haven Specific Plan EIR, July 2007.			

4.16.3 - Regulatory Setting

Urban Water Management Plans

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 sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act describes the

contents of the Urban Water Management Plans as well as how urban water suppliers should adopt and implement the plans. Urban water management plans include discussions on water supply, supply reliability, water use, water conservation, water shortage contingency, etc. These plans serve to assist urban water suppliers with their long-term water resources planning to ensure adequate water supplies for existing and future demands.

Government Code sections 65352 and 65352.5 require cities and counties to consult with water providers in connection with the adoption of a general plan or to substantially amend an existing general plan. Government Code section 65302, subdivision (d), requires cities and counties to coordinate with such providers in preparing the conservation elements of their general plans and evaluate any information submitted by the water agency to the city or county.

SB610 and SB221 are companion measures that seek to promote more collaborative planning between local water suppliers and cities and counties. It requires that water supply assessments occur early in the land use planning process for all large-scale development projects. If groundwater is the proposed supply source, the required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. It also requires an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during single and multiple dry years presented in 5-year increments for a 20-year projection.

Integrated Solid Waste Management Act of 1989 (Public Resources Code 40050 et seq.) or Assembly Bill 939

Pursuant to the California Integrated Solid Waste Management Act of 1989, all cities in California are required to reduce the amount of solid waste disposed in landfills. Assembly Bill 939 required a reduction of 25 percent by 1995 and 50 percent by 2000. Contracts that include work that will generate solid waste, including construction and demolition debris, have been targeted for participation in source-reduction, re-use, and recycling programs. The contractor is urged to manage solid waste generated by the work to divert waste from disposal in landfills (particularly Class III landfills) and maximize source reduction, re-use, and recycling of construction and demolition debris.

Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 requires each jurisdiction to adopt an ordinance by September 1, 1994 requiring each development project to provide an adequate storage area for collection and removal of recyclable materials.

Local

City of Chino

General Plan

Table 4.16-5 lists goals and policies for utilities and service systems, as presented in the Circulation and Conservation/Open Space Elements of the City of Chino General Plan. Section 4.9, Land Use and Planning, Table 4.9-2 in this Draft EIR contains a comprehensive analysis of the Project's consistency with the City's General Plan.

Table 4.16-5: Circulation and Conservation/Open Space Element Goals and Policies

Reference	Description
Circulation Element	
Goal G3-8	Public Facilities Systems - Provide complete, safe, and efficient public utility systems which serve future land use needs.
Policy P3-8.1	Define Needs and Develop Capacity – Annually define needs and deficiencies within the City's limits and sphere of service. Introduce all projects into the City's capital improvements process with the most urgent receiving priority. Annually evaluate capacity needs and develop programs to increase capacity and provide service.
Conservation/Open Space Element	
Goal G5-5	Reduce Dependence on Non-Renewable Resources - The City shall commit itself and encourage residents of Chino to reduce dependence on non-renewable and non-recyclable resources.
Policy P5-5.1	Regulation XV Compliance – To recognize and comply with the applicable provisions of Regulation XV, prepared by the South Coast Air Quality Management District.
Goal G5-6	Encourage Use of Alternative Energy Source – To encourage and promote the use of alternative energy sources with emphasis on the use of renewable energy sources.
Policy P5-6.1	Encourage Solar Energy Use – To encourage, when feasible, the use of solar energy for residential, commercial and industrial land uses.
Policy P5-6.2	Encourage Alternative Energy Facilities – To encourage the use of cogeneration facilities, and other alternative facilities, where feasible, for residential, commercial and industrial developments.
Goal G5-7	Promote Energy Conservation Practices – To encourage the use of energy management and conservation practices, while striving to achieve a sustainable energy future.
Policy P5-7.1	Use of Energy Conservation Devices – To encourage the use of energy conservation devices, such as automatic and computer controlled thermostats in new residential, commercial and industrial developments.
Policy P5-7.2	Encourage Efficient Energy Use – To encourage the efficient use of energy sources.
Policy P5-7.3	Energy Conserving Street Lights – To conserve the amount of energy required for the operation of street lights.

Table 4.16-5 (Cont.): Circulation and Conservation/Open Space Element Goals and Policies

Reference	Description
Policy P5-7.4	Site Plan Design Techniques – To encourage innovative site plan design that takes advantage of natural sunlight as a heating source.
Policy P5-7.5	Meet Current and Future Energy Conservation Practices - To ensure that all new development is designed to meet current and future energy conservation practices.
Goal G5-10	Reduce Local Solid Waste - To reduce the amount of local solid waste generated in the City.
Policy P5-10.1	Comply with AB 939 – To recognize and comply with the provisions and requirements outlined in Assembly Bill 939, the “California Integrated Solid Waste Management Act of 1989.”
Policy P5-10.2	1989 AQMP Compliance – To recognize and comply with the provisions of Appendix IV-G of the Air Quality Management Plan prepared by the Southern California Association of Governments and the South Coast Air Quality Management District.
Policy P5-10.3	Promote Use of Recycled Products – To promote the use of products made of recycled materials.
Goal G5-12	Conserve Water - To conserve water resources in the City of Chino.
Policy P5-12.1	Encourage Water Conservation Practices – To encourage water conservation practices for all residential, commercial, and industrial land uses in the City.
Goal G5-13	Meet Existing and Future Water Demands - To meet existing and future water demands for the City.
Policy P5-13.1	Ensure Adequate Water Supply – To ensure that the City’s water production and distribution capabilities are adequate to meet future residential, commercial and industrial water demands.

The Preserve Specific Plan and EIR

For Utilities and Service Systems, The Preserve EIR found that implementation of the Specific Plan would result in significant, cumulative impacts on electrical energy supplies. This assessment was based on the electrical energy shortfall in California and the western United States at that time (2003) due to the high wholesale costs of electricity brought about by deregulation in 1996, and the uncertainty of electrical supplies to meet future growth.

Under The Preserve Specific Plan, only 3.65 acres of the Edgewater Project site were designated for development as Estate Residential (at 2 dwelling units per acre or 7 units total). The remaining area of approximately 269 acres was designated for Open Space-Recreational (OS-R), Agricultural and Open Space Natural (AG/OS-N), and Open Space-Natural (OS-N). Infrastructure plans developed as part of The Preserve planning effort did not account for extensive residential development within the Edgewater site.

4.16.4 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated: Would the project:

- a.) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b.) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c.) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d.) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- e.) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- f.) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g.) Comply with federal, state, and local statutes and regulations related to solid waste?

4.16.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the Project and provides mitigation measures where appropriate. Table 4.16-6 displays a comparison of demand for utilities and service systems under The Preserve Specific Plan (2003) and as amended for the Edgewater Communities Project (March 2008). Existing and future demand calculations are explained within the individual impact analyses.

Table 4.16-6: Comparison of the Preserve Specific Plan Within Project Site and the Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site	The Preserve Specific Plan as amended for Edgewater Communities Project
Wastewater Generation	1904 gallons per day ¹	270,837 gallons per day ²
Water Demand	1035 AFY ³	1094 AFY ⁴
Solid Waste Generation	0.04 tons per day	6.78 tons per day

Table 4.16-6 (Cont.): Comparison of the Preserve Specific Plan Within Project Site and the Preserve Specific Plan as amended for Edgewater Communities Project

	The Preserve Specific Plan within Project Site	The Preserve Specific Plan as amended for Edgewater Communities Project
Electrical Consumption	0.04 million kilowatt hours per year	6.98 million kilowatt hours per year
Natural Gas Consumption	0.56 million cubic feet per year	45.57 million cubic feet per year
Notes: ¹ Seven (7) dwelling units (dus) x 3.4 persons per household x 80 gallons of wastewater per day (household size and wastewater generation factor taken from Sewer Master Plan Update Report, Subareas 1 and 2, November 2007). ² Sewer Master Plan Update Report (November, Subareas 1 and 2). ³ Projected water use under existing Specific Plan Land Use Designations, as calculated in Table 4.16-7 within Impact 4.16-4 in this Draft EIR Section. ⁴ Water Supply Assessment for the Edgewater Communities, Dudek, October 2007.		

Exhibits are contained in Section 3, Project Description that indicate how planned Specific Plan infrastructure systems would be modified to service the proposed Project (see Exhibits 3-10 through 3-13).

Wastewater Treatment

Impact 4.16-1: The Project will not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
[CEQA Utilities and Service Systems Threshold 16(a)]

Impact Analysis

Infrastructure plans developed as part of The Preserve planning effort did not account for extensive residential development within the Edgewater site because a significant portion of the Project site is currently below the 566-foot elevation, delineating the “High Water Elevation” of the Prado Flood Control Basin.

A Sewer Master Plan Update Report for Subareas 1 and 2 was prepared in November 2007 by Bureau Veritas North America, Inc. (contained in Appendix K) to incorporate the proposed Edgewater Project, and to incorporate revisions to the Sewer Master Plan Subareas 1 and 2 - Chino Agricultural Preserve Area (August 2003). The Edgewater Project site comprises Service Area D in the Sewer Update Report. According to the Sewer Update Report, the completed Project will generate an estimated 270,837 gallons of wastewater per day. Wastewater generated from the Project will be channeled via the internal Project sewer collection system to two lift stations. Sewer systems below the modified 566' elevation would need to be designed as sealed systems to mitigate the potential high inflow and infiltration into the sewer system (see discussion for Impact 4.16-2).

The two lift stations will channel wastewater flows north via force mains to a proposed gravity sewer in Chino Corona Road, where it will be conveyed to a proposed sewer lift station located at the southern terminus of Johnson Avenue (see Exhibit 3-12). At buildout, the proposed Edgewater

Project would contribute approximately 10 percent of the projected average daily flows tributary to the Johnson Avenue Lift Station. Flows would then be conveyed to Regional Plant (RP)-5 via a proposed force main and the Kimball Avenue Sewer Interceptor System.

RP-5, located at the southeast corner of Kimball Avenue and El Prado Road, was opened in March 2004 to provide tertiary wastewater treatment. Current plant capacity is 15 million gallons per day (Shaw, personal communication). Pursuant to the IEUA Wastewater Facilities Master Plan (April 2002), the plant capacity should be increased to 30 million gallons per day (mgd) by 2010, increasing to ultimate, master plan capacity of 48 mgd by 2050.

Implementation of the proposed Project and construction and operation of a sanitary sewer system for the Project site would result in a beneficial impact on groundwater underlying the Project site and vicinity. The onsite manmade ponds storing liquid dairy waste and their continuing potential for allowing seepage of dairy contaminants into the groundwater would be eliminated.

All future wastewater generated within the Project will be treated at RP-5 by IEUA. IEUA operates their treatment plants in accordance with the Regional Water Quality Control Board (RWQCB) wastewater treatment requirements. Given that the treatment capacity will not be exceeded with the addition of wastewater from the Project site, wastewater treatment requirements of the RWQCB would not be exceeded. Therefore, implementation of the proposed Project would not impact wastewater treatment requirements of the RWQCB.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Water or Wastewater Treatment Facilities and Wastewater Treatment Capacity

Impact 4.16-2:	The Project could require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. [CEQA Utilities and Service Systems Threshold 16(b)] The Project could require additional wastewater capacity from the wastewater treatment provider. [CEQA Utilities and Service Systems Threshold 16(e)]

Impact Analysis

Refer to the impact analysis for Impact 4.16-1. Wastewater flows from the Project will be treated at RP-5. IEUA member agencies collect development fees for wastewater plant expansion and IEUA can call in the monies for capital improvements as demand warrants. IEUA would have the funds

available to expand RP-5 as the Edgewater Project and other development warrants expansion. Future expansions are planned by IEUA under their master plan, which has taken into account environmental impacts associated with plant expansion and adequate capacity will be available. The Project does not require expansion or construction of new wastewater treatment facilities so this impact is considered less than significant.

Potable Water

The proposed Project would have a dual (potable and recycled) water system. A standalone potable system has been described for the Project. Based on the Water System Master Plan Update (MWH, October 2007), this system will obtain water from a water well. The specific location of this well has not been determined. The well would be sized to meet the Maximum Day Demand (MDD) of the proposed Project.

Groundwater extracted from the proposed new water well will be treated using ion exchange and possibly reverse osmosis to lower the expected levels of nitrate and total dissolved solids (TDS) to less than or equal to 25 and 250 mg/L, respectively. The process would produce a treated effluent and a brine wastewater discharge. After treatment, water would be conveyed to a new storage reservoir. Water would then be conveyed to the Project site to service both the drinking water needs and required fireflow requirements for the Project site.

New water distribution pipelines, 8 and 12 inches in size, will be installed within the Project site to deliver potable water to all residences (see Exhibit 3-10). All potable water supply source facilities (i.e. supply well, well pump, treatment processes, storage reservoir) will be sized to deliver 100 percent of the Project residential demand.

Brine wastewater that would be produced by the treatment of groundwater from the water well will be conveyed by gravity to the Santa Ana River Interceptor Sewer Line (SARI) through a new 22,400-foot, 8-inch diameter pipeline located along Euclid Avenue. The City is a participant of the regional SARI Project. The purpose of the SARI System is to transport wastewater in the upper Santa Ana watershed to Orange County Sanitation District (OCSD) for primary sewage treatment and offshore disposal. The western branch of the SARI line runs west along Kimball Avenue within the City of Chino from a desalter plant down El Prado Road at Euclid Avenue and connects with the eastern branch, traveling down Pine Avenue, and continuing south to OCSD.

Recycled Water

The Project will utilize recycled water for irrigation of open space areas within the Project site, including common landscaping along the street rights-of-way, as well as other public spaces (see Exhibit 3-11). The lakes will be filled with recycled water. The Project may also utilize recycled water during the construction phase.

The Project water system (potable and recycled) and sewer system would be designed and constructed in accordance with state and local requirements. Construction of the water and sewer

system improvements could result in short-term significant impacts during construction, requiring mitigation measures to reduce the impacts to a level of less than significant. Operationally, sewer systems below the 566' elevation would need to be designed as sealed systems.

Level of Significance Before Mitigation

Potentially significant. [CEQA Utilities and Service Systems Thresholds 16(b) and 16 (e)]

Mitigation Measures

- U-WW-1** Construction contractors utilized for construction of Project infrastructure for the utility systems (potable water, recycled water, sanitary sewer and/or storm drain) shall be required to follow Best Management Practices to limit short-term construction-related impacts.
- U-WW-2** Sewer systems below the 566' elevation shall be designed as sealed systems to mitigate the potential high inflow and infiltration into the sewer system. All manhole covers and clean-out covers with elevations lower than 566' shall have bolted covers with pressure plated assemblies. All sewer structures including wet wells, junction structures, flow splitters, and manholes that extend below the 566' elevation shall be plastic lined, and include water-stops at all construction and expansion joints.
- U-WW-3** Design, construction, and timing of wastewater facilities shall conform to the hydraulic criteria presented in the Sewer Master Plan Update, Subareas 1 and 2 (Bureau Veritas North America, Inc., November 2007).

Level of Significance After Mitigation

Less than significant.

Stormwater Drainage Facilities

Impact 4.16-3:	The Project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. [CEQA Utilities and Service Systems Threshold 16(c)]

Impact Analysis

A Storm Drain Master Plan Update Report, Subarea 2 (“Storm Drain Report”) was prepared in December 2007, by Bureau Veritas North America, Inc. (contained in Appendix K) to incorporate the proposed Edgewater Project, and to incorporate revisions to Master Plan Drainage Basins “B”, “D”, and “J”, as included in the Amendment to Master Plan of Drainage for Subarea 2 (2004). The study area for the Storm Drain Report encompasses approximately 8.8 square miles of agricultural and open space property adjacent to Cucamonga Creek Channel, and upstream of the US Army Corps of Engineers’ Prado Flood Control Basin. A total of 10 drainage basins are identified within the developable portions of the study area based on the flow pattern of surface runoff. The northern portion of the Edgewater Project site is located within two drainage basins designated as F and G, depicted in the Storm Drain Report in Figure No. 3 (see Appendix K).

Project implementation will require construction of new storm water drainage facilities (see Exhibit 3-13). Storm water runoff from the proposed Project will be channeled into two new principal main line storm drains associated with drainage basin F and G, designated as Line F and Line G, respectively. Line F is a 42-inch to 84-inch diameter storm drain that conveys runoff southward and discharges flow east of the Project site into the Prado Flood Control Basin. Line G is a 48-inch to 72-inch diameter storm drain that conveys runoff southward and discharges this flow west of the Project site into the Prado Flood Control Basin. Drainage facilities would be designed to the standards and criteria of the City of Chino and San Bernardino County Flood Control District.

The remainder of the Project site will be serviced by a series of new local storm drains that will be independent of these mainline drainage facilities. These local storm drains will convey runoff to one of three detention basins to be constructed onsite.

The quantity and quality of storm water runoff leaving the Project site will meet requirements set forth in the applicable municipal storm sewer National Pollutant Discharge Elimination System (NPDES) permit for this region of San Bernardino County (Order No. R8-2002-0012, NPDES Permit No. CAS618036), adopted by the Santa Ana Regional Water Quality Control Board (RWQCB) on April 26, 2002. A Project Water Quality Management Plan (WQMP) is being prepared, outlining specific structural and non-structural requirements that must be implemented within the Project site to maintain adequate levels of storm water quality. (A Preliminary WQMP is contained in Appendix H.)

Potential impacts could result from the provision of new storm drainage facilities:

- Portions of the drainage network may be located below the 100-year flood elevation of the Prado Flood Control Basin (equivalent to the 566' elevation line). The potential therefore exists that flood waters could add pressure to storm drains and manhole covers and possibly force covers and manholes from their locations.
- Storm water will be discharged from the onsite lakes into the Prado Flood Control Basin. Because the areas receiving storm water discharge within the Prado Basin are earthen and unprotected, increased downstream erosion may occur.

Level of Significance Before Mitigation

Potentially significant. [CEQA Utilities and Service Systems Threshold 16(c)]

Mitigation Measures

U-SD-1 Design, construction, and timing of storm drain facilities shall conform to the hydraulic criteria presented in the Storm Drain Master Plan Update Report, Subarea 2 (Bureau Veritas North America, Inc., December 2007).

Implement Mitigation Measures U-WW-1 and U-WW-3.

Level of Significance After Mitigation

Less than significant.

Water Supplies

Impact 4.16-4: The Project will have sufficient water supplies available to serve the Project from existing entitlements and resources, and no new or expanded entitlements are needed.
[CEQA Utilities and Service Systems Threshold 16(d)]

Impact Analysis

Refer to the impact analysis for Impact 4.16-2 and Exhibit 3-10.

Projected water use under existing Specific Plan land use designations is presented in Table 4.16-7

Table 4.16-7: Projected Water Use Under Existing Specific Plan Land Use Designations

Use	Units/Area	Consumption Factor ¹	Total Demand (AF/yr)
Residential	7 du	0.002 AF/du/day	5.11 AF/yr
Open Space-Recreation (OS-R)	14.59 acres	3.0 AF/acre/yr ²	43.77AF/yr
Agricultural and Open Space-Natural (AG/OS-N)	197.14 acres	5.0 AF/acre/yr ²	985.7 AF/yr
Open Space-Natural (OS-N)	57.55 acres	--	--

Table 4.16-7 (Cont.): Projected Water Use Under Existing Specific Plan Land Use Designations

Use	Units/Area	Consumption Factor ¹	Total Demand (AF/yr)
Total			1034.58 AF/yr
Notes: du = dwelling unit AF = acre feet yr = year ¹ For consistency with earlier analysis, water consumption factors have also been taken from Kern County, California, Moore Dairy EIR, October 2001. ² 3.0-5.0 AF/yr is considered a conservative estimate for agricultural water use. Low and high factors within the range were utilized for similar land uses.			

A Water Supply Assessment (WSA) to document the sufficiency of available water supply for the City of Chino and the proposed Project was prepared and is contained in Appendix K (Dudek, October 2007). The WSA identifies water supply and reliability to the City, now and into the future, including a sufficient water supply for the Project.

The proposed Project would have a dual (potable and recycled) water system. A standalone potable system has been described for the Project. Based on the Water System Master Plan Update (MWH, October 2007), this system will obtain water from a water well. The specific location of this well has not been determined. The well would be sized to meet the Maximum Day Demand (MDD) of the proposed Project. Recycled water would be used for open space irrigation, public space irrigation, and replenishing the five artificial lakes to be constructed onsite. Recycled water would be purchased from IEUA.

The City's current average total demand is approximately 21,000 acre-feet per year (AFY). The WSA estimates that build out of the proposed Project will increase water demand by approximately 1,094 AFY of water (484 AFY of potable water and 610 AFY of recycled water), yielding a total projected City demand of 31,048 AFY by 2021. Combined with build out of The Preserve Specific Plan area and College Park, which have been included in the water demand projections by Dudek, water demand is anticipated to increase to 31,429 AFY by 2030.

The proposed Project is expected to be built within a 10-year period with an initial water demand in 2009. The phasing plan allows for water demands to be met from sources that are currently being planned, developed and implemented, including recycled water and conservation programs. Supplies of imported water and Chino Basin Desalter Authority (CDA) water are expected to remain relatively stable throughout the WSA forecast period. The WSA indicates that enhanced water conservation, increased local well production, and increased use of recycled water should provide for the balance of needed supplies.

After analysis of water demand and supply projections for the City, including the proposed Project, the WSA concludes that there is a sufficient water supply for the City and the proposed Project, now

and into the future. The conclusion considers that in certain dry year scenarios, the City would produce groundwater from its stored groundwater reserves.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required. The following mitigation measure is recommended to conserve water resources and the quantity of energy used.

U-W-1 The applicant/developer and the City of Chino shall work to include sustainable systems for use of water and energy with the Project design.

Level of Significance After Mitigation

Less than significant.

Landfill Capacity

Impact 4.16-5:	The Project is served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. [CEQA Utilities and Service Systems Threshold 16(f)]

Impact Analysis

Only 7 Estate Residential (ER) units are permitted under existing Specific Plan land use designations, which can be predicted to generate 0.04 tons of solid waste per day (7 du x 12.23 lbs/du/day converted to tons per day [California Integrated Waste Management Board Generation Rate]).

Implementation of the proposed Project would result in greater solid waste generation associated with residential, church/school, and museum/retail uses. Table 4.16-8 provides an estimate of the projected solid waste generation at buildout of the proposed Project.

Table 4.16-8: Estimated Daily Solid Waste Generation

Land Use	Units/Area	Generation Factor²	Total Solid Waste Generation (tpd)
Residential	1,074 du	12.23 lbs/du/day	6.57
Church/School	15,200 sf ¹	.007 lbs/sf/day	0.05
Museum/Retail	65,000 sf ¹	5 lbs/1,000 sf/day	0.16
Total			6.78
Notes: du = dwelling unit lbs = pounds sf = square feet tpd = tons per day lbs/sf/day = pounds per square feet per day lbs/du/day = pounds per dwelling unit per day ¹ Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised), City of Chino, CA. November 16, 2007. ² California Integrated Waste Management Board, Solid Waste Generation Rates (Residential, Public/Institutional, and Commercial), 2008.			

Solid waste generated within the City is collected by Waste Management of Inland Empire. Solid waste is then transferred to the El Sobrante Landfill located in the City of Corona, which is owned and operated by the Riverside County Solid Waste Management Department and is expected to remain open to waste disposal until approximately 2030. The remaining capacity of the landfill is 118,573,540 tons (California Integrated Waste Management Board, 2008). The maximum amount of solid waste that can be deposited at the landfill is approximately 10,000 tons per day, of which 6,000 tons per day is dedicated to refuse generated from jurisdictions outside of Riverside County. The solid waste generated by the proposed Project represents less than one percent of the maximum daily capacity. This increase is considered nominal and is considered a less than significant impact.

In addition to solid waste generated from proposed Project uses, construction and demolition debris will be generated during construction phases of the project. This includes the debris from demolition of residences and dairy-related structures onsite. Although the quantity of demolition debris cannot be specifically determined at this time, demolition waste has been specifically targeted by the State of California for diversion from the waste stream. Mandatory compliance with applicable State and local regulations governing solid waste and source reduction and recycling would reduce the amount of demolition waste entering landfills. Therefore, conformance with the City's recycling program would ensure that the Project would not contribute excessive amounts of inert wastes to landfills and would therefore result in less than significant impacts.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Legal Compliance for Solid Waste

Impact 4.16-6:	The Project will comply with federal, state, and local statutes and regulations related to solid waste.
	[CEQA Utilities and Service Systems Threshold 16(g)]

Impact Analysis

Solid waste generated at the Project site would be collected by Waste Management of Inland Empire, and then transported to the El Sobrante Landfill. The City of Chino Public Works Department, Solid Waste Division ensures that the transportation of the refuse complies with applicable federal, state, and local statutes and regulations related to solid waste. Proposed residential, church/school, and museum/retail uses would not be expected to generate, store, or dispose of significant quantities of hazardous materials. All hazardous materials generated would be required to be stored, handled, and disposed of in accordance with all applicable federal, state, and local laws and regulations as required

by the City of Chino. Hazardous materials are required to be separated from regular solid waste, and can be disposed of separately at the City of Chino's Household Hazardous Waste Collection Facility, located at 5050 Schaefer Avenue. Residential land uses also generate universal wastes, such as common batteries, televisions, and computers, which could be disposed of at the City of Chino Collection Center (Public Works Service Center). Solid waste generated on the Project site will comply with the applicable federal, state, and local statutes and regulations related to solid waste. Therefore, a less than significant impact will occur.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Electricity

Impact 4.16-7: Existing and future planned electrical facilities and supplies are adequate to serve proposed Project land uses.

Impact Analysis

The proposed Project would convert the Project site from agricultural uses to urban uses, resulting in an increased demand for electricity. Projected annual electrical gas demand for the Project is presented in Table 4.16-9.

Only 7 Estate Residential (ER) units are permitted under existing Specific Plan land use designations, which can be predicted to require 0.04 million kilowatt hours (kwh) of electricity per year (7 du x 5,526.50 kwh/du/yr, converted to million kwh per year [employing electrical demand factor per Table 4.16-8 below]).

Table 4.16-9: Projected Annual Electrical Demand

Land Use	Units/Area	Electrical Demand Factors ²	Annual Demand (million kwh/yr)
Residential	1,074 du	5,526.50 kwh/du/yr	5.94
Church/School	15,200 sf ¹	10.50 kwh/sf/yr	.16
Museum/Retail	65,000 sf ¹	13.55 kwh/sf/yr	.88
Total			6.98
Notes:			
du = Dwelling Unit kwh = kilowatt hour sf = square feet			
kwh/du/yr = kilowatt hour per dwelling unit per year kwh/sf/yr = kilowatt hours per square foot per year			
¹ Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised), City of Chino, CA. November 16, 2007.			
² City of Ontario, Rich Haven Specific Plan EIR, July 2007.			

Development of the proposed Project at full buildout would result in an estimated increase in demand for electrical service in comparison to the existing condition and to development under current Specific Plan designations.

Southern California Edison (SCE) has ongoing plans to analyze electrical demands on a yearly basis to plan for improvements as needed. Coordination is typically required between the applicant/developer and SCE to avoid any notable service disruptions during extension and upgrading of services and facilities. This coordination ensures that the nature, design, and timing of electrical system improvements are adequate to serve the Project. It is anticipated that less than significant impacts related to the provision of electrical service would result from implementation of the proposed Project.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Natural Gas

Impact 4.16-8: Existing and future planned natural gas facilities and supplies are adequate to serve proposed Project land uses.

Impact Analysis

The proposed Project would convert the Project site from agricultural uses to urban uses, resulting in an increased demand for natural gas. Projected annual natural gas demand for the Project is presented in Table 4.16-10.

Only 7 Estate Residential (ER) units are permitted under existing Specific Plan land use designations, which can be predicted to require 0.56 million cubic feet per year (mcf/yr) of natural gas (7 du x 6,665 cf/mo/sf du, converted to million cf per year [employing natural gas demand factor per Table 4.16-9 below]).

Table 4.16-10: Projected Annual Natural Gas Demand

Land Use	Units/Area	Natural Gas Demand Factors ²	Total Demand (mcf/yr)
Residential	537 sf du 537 mf du	6,665 cf/mo/sf du 4,011.5/mo/mf du	42.95
Church/School	15,200 sf ¹	2.0 cf/mo/sf	.36

Table 4.16-10 (Cont.): Projected Annual Natural Gas Demand

Land Use	Units/Area	Natural Gas Demand Factors ²	Total Demand (mcf/yr)
Museum/Retail	65,000 sf ¹	2.9 cf/mo/sf	2.26
Total			45.57
Notes: sf du = single-family dwelling unit mfd du = multi-family dwelling unit sf = square feet mcf/yr = million cubic feet per year cf = cubic feet yr = year ¹ Urban Crossroads. Edgewater Communities Project Traffic Impact Analysis (Revised), City of Chino, CA. November 16, 2007. ² Natural gas consumption factors taken from California Air Resources Board (CARB) Land Use Emissions Model (URBEMIS 2007, Version 9.2).			

Development of the proposed Project at full buildout would result in an estimated increase in demand for natural gas service in comparison to the existing condition and to development under current Specific Plan designations.

The Gas Company has indicated that service can be provided as needed (Hart, personal communication). Coordination is typical between the applicant/developer and The Gas Company to avoid any notable service disruptions during extension and upgrading of services and facilities. This coordination would also ensure that the nature, design, and timing of natural gas system improvements are adequate to serve the Project. It is not expected that implementation of the proposed Project would result in a significant impact on natural gas services or facilities. Impact is considered less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact 4.16-9: **The Project, in conjunction with other past, present, and reasonably foreseeable future projects, will not result in a significant cumulative impact related to utilities and service systems.**

Impact Analysis

Implementation of the proposed Project together with development of related projects (see Table 3-2) will contribute cumulatively to utility purveyor's ability to provide service. It is reasonable to assume, however, that upon approval of the required discretionary actions for the cumulative projects, individual project service requirements would be addressed through the respective jurisdictions' General Plan and community planning processes and by the respective utility providers and service

districts. In addition, each project would be individually subject to technical review by the respective jurisdictions and would be required to comply with the respective jurisdictions' requirements related to the provision of utilities and services.

The Project site is proposed for development as a water-oriented community in the vicinity of other residential land uses within the Specific Plan area. Although the Project will require the extension of utility improvements within the Project boundaries, these connections will connect to improvements required within portions of The Preserve Specific Plan area already approved for development.

Development of the Project site as proposed may induce additional urbanization of the broader area within the Prado Flood Control Basin previously identified as open space. However, the Project and any future proposed projects will be required to comply with all standard regulatory requirements concerning any utility provider's capability to provide service. Therefore, upon compliance with standard regulatory requirements, the proposed Project in conjunction with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to utilities and service systems.

The Preserve Specific Plan and EIR

In 2003, The Preserve EIR determined that implementation of the Specific Plan would result in significant, cumulative impacts on electrical energy supplies based on the electrical energy shortfall in California and the western United States, due to the high wholesale costs of electricity at that time (2003) brought about by deregulation in 1996, and the uncertainty of electrical supplies to meet future growth. Since 2003, significant improvements have occurred in the adequacy of electricity supply in Southern California due to the addition of new generation facilities, transmission improvements, increased energy efficiency, and voluntary conservation. Such improvements are expected to continue due to both state and Southern California Edison efforts in the future.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance After Mitigation

Less than significant.

4.16.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The certified Program EIR for The Preserve identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). Refined Project Mitigation Measures for Edgewater Communities are included within the individual impact discussions contained in Section 4

of this Draft EIR. Table 4.16-11 below, provides a cross reference summary between Edgewater Communities Mitigation Measures and The Preserve EIR Mitigation Measures.

Table 4.16-11: Relationship of the Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures for Utilities and Service Systems

Edgewater Communities Mitigation Measure	Correlating Mitigation Measure from The Preserve EIR	Description of Relationship
U-WW-1. Best Management Practices to limit construction impacts.		No conflict between The Preserve EIR and the Project.
U-WW-2. Sealed sewer systems below the 566' elevation.	The Preserve Specific Plan did not allow development below the 566' elevation.	Edgewater mitigation addresses design consideration for sewer systems established below the 566' elevation.
U-WW-3. Design, construction, and timing of wastewater facilities shall conform to the hydraulic criteria presented in the Sewer Master Plan Update, Subareas 1 and 2 (Bureau Veritas North America, Inc., November 2007). Sewer Master Plan Update Report was prepared to integrate Project. Applicant/developer would be required to pay sewage fees and construct Project sewage systems.	U-WW-1. Backbone sewer lines. U-WW-2. Sewage facilities development fees and system collection fees.	No conflict between The Preserve EIR and the Project.
U-SD-1. Storm drain facility design, construction and timing.	The Preserve Specific Plan did not allow development of Project site areas below the 566' elevation.	Storm Drain Master Plan Update Report was prepared to integrate Project. Applicant/developer would be required to comply with hydraulic criteria contained in Storm Drain Master Plan Update Report.
U-W-1. Sustainable water and energy systems.	U-E-1. Energy efficient lighting.	No conflict between The Preserve EIR and the Project.
	U-SW-1. Large waste containers.	No conflict between The Preserve EIR and the Project.
Refer to Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures.		

4.17 - Climate Change and Greenhouse Gases

4.17.1 - Introduction

This section describes the existing air quality setting and potential effects from Project implementation on the site and its surrounding area. The conclusions and findings that may be reached based on the technical information and analyses contained in this report represent the independent judgment of the City of Chino as the CEQA Lead Agency. Descriptions and analysis in this section are based on information contained in the Climate Change Analysis prepared in May 2008 by Michael Brandman Associates (MBA). The report is contained in Appendix L of this Draft EIR.

In 2006, Governor Schwarzenegger signed Assembly Bill (AB) 32, which charged the California Air Resources Board (ARB) with developing regulations on how the State would address climate change (also known as “global warming”). The ARB, the California Environmental Protection Agency, the U.S. Environmental Protection Agency (EPA), or other appropriate governmental organizations have not yet developed guidelines on how to prepare a California Environmental Quality Act (CEQA) assessment for climate change. Nevertheless, in absence of published CEQA thresholds, this analysis contains CEQA-level discussions that include thresholds of significance and determine the potential impact of the Project’s greenhouse gases to conflict with the intent of AB 32.

Comment letters on the Notice of Preparation (NOP) of the EIR for the Edgewater Communities Project, contained in Appendix A, were received by the City of Chino. No comments specifically addressing climate change and greenhouse gases were contained in letters submitted to the City. Comment letters addressing air quality from SCAQMD and SCAG are addressed in Section 4.3, Air Quality of this Draft EIR.

4.17.2 - Existing Conditions

Climate change is a change in the average weather of the earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. In California, climate change may result in consequences such as loss of snow-pack, increased risk of large wildfires, and reductions in the quality and quantity of certain agricultural products.

Gases that trap heat in the atmosphere are greenhouse gases, analogous to the way a greenhouse retains heat. The accumulation of greenhouse gases in the atmosphere regulates the earth’s temperature to be suitable for life. However, human activities have increased the amount of greenhouse gases in the atmosphere. Some greenhouse gases can remain in the atmosphere for hundreds of years. The following is a brief description of the most common greenhouse gases.

- Water vapor is the most abundant, important, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

- Ozone is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and therefore is not global in nature. Ozone is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.
- Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.
- Carbon dioxide (CO₂) is an odorless, colorless natural greenhouse gas. Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
- Methane is a flammable greenhouse gas. A natural source of methane is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.
- Nitrous oxide, also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.
- Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.
- Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, they are one of three groups with the highest global warming potential. HFCs are human made for applications such as air conditioners and refrigerants.
- Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
- Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest global warming potential of any gas evaluated, 23,900. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in

the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

4.17.3 - Regulatory Setting

Climate change is a result of greenhouse gases emitted all around the world from sources such as the combustion of fuel for transportation and heat, cement manufacture, and refrigerant emissions. The State of California has recently enacted key legislation in an effort to reduce its contribution to climate change, as discussed below.

California Governor Schwarzenegger announced on June 1, 2005, through Executive Order S 3-05, the following greenhouse gas emission reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels;
- By 2020, reduce greenhouse gas emissions to 1990 levels;
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

To meet these targets, the Climate Action Team prepared a report to the Governor in 2006 (2006 CAT Report) that contains recommendations and strategies to help ensure the targets in Executive Order S-3-05 are met.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. Greenhouse gases, as defined under AB 32, include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. ARB is the State agency charged with monitoring and regulating sources of emissions of greenhouse gases. AB 32 requires ARB to adopt and implement a list of discrete and early action greenhouse gas reduction measures, which was completed in October 2007. The ARB approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO₂e) on December 6, 2007. Therefore, in 2020, emissions in California are required to be at or below 427 MMTCO₂e.

SB 97 was passed in August 2007. SB 97 indicates that before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit guidelines to the Resources Agency for the mitigation of the effects of greenhouse gas emissions. SB 97 also indicates that before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR.

Chino General Plan

The City of Chino Air Quality Element (1991) contains goals and policies that reduce air pollutants and attempt to decrease vehicle miles traveled and reduce energy consumption. These goals and policies are contained in Section 4.3, Air Quality of this Draft EIR. A reduction in vehicle miles traveled and energy consumption would lead to a reduction in indirect greenhouse gas emissions.

The Preserve Specific Plan and EIR

The Preserve Specific Plan and EIR did not address greenhouse gases or climate change.

4.17.4 - Thresholds of Significance

CEQA requires Lead Agencies to evaluate potential environmental effects based on, to the fullest extent possible, scientific and factual data (CEQA Guidelines Section 15064[b]). Significance conclusions must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines Section 15064[f](5)).

There are currently no published thresholds of significance established by any state or regional regulatory agency for measuring the impact of climate change on or from a project. CEQA Guidelines Section 15064.7 indicates: “each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.” The City of Chino has not yet formulated a threshold pertaining to climate change.

The significance thresholds used to evaluate the impacts of climate change and greenhouse gases for this Project are as follows:

Would the project significantly impact the environment through its emissions of greenhouse gases as such gases are defined in AB 32?

Would the proposed project cumulatively impact the environment through its emissions of greenhouse gases as such gases are defined in AB 32?

The City of Chino has decided to utilize the most current strategies available until such a time that official standards and thresholds are developed. Therefore, this analysis does not establish thresholds for the City or set precedence for the type of analysis in a climate change analysis, as this discipline is still evolving and is expected to undergo multiple renditions before standards and thresholds are published.

4.17.5 - Project Impacts and Mitigation Measures

There are two ways to address climate change—on a project-level basis and a cumulative basis. Even though climate change is cumulative in nature, CEQA requires both a project-level and a cumulative level approach. Therefore, both analyses are contained in this Draft EIR.

There are resources available that provide strategies for reducing greenhouse gas emissions. Although compliance with these strategies is not required by law, these reduction strategies provide additional guidance in this new area of environmental protection. For this reason, they are discussed herein. Impacts to the Project from climate change are also addressed.

AB 32 Reduction Targets

Impact GCC-1: The Project would not significantly impact the environment through its emissions of greenhouse gases as such gases are defined in AB 32.

There are no project-level thresholds to measure the significance of a project's impact on climate change. Thus, a standard CEQA "significance" determination is difficult to make in this context. Nevertheless, the compliance with current California strategies to reduce greenhouse gas emissions is used to assess the significance of the Project's contribution to climate change. In addition, an inventory of greenhouse gas emissions is presented as well as an assessment of the feasibility of additional reduction options.

Inventory of Greenhouse Gases

Existing

An active dairy is currently located within the Project site. The operational air emissions associated with the dairy are subtracted from the Project's operational emissions to result in the net increase in operational emissions. It is subtracted from operational emissions because the dairy emissions generally occur all year. Sporadic construction projects potentially associated with the dairy are not included in this analysis to provide a worst-case scenario.

The number of cows associated with the active onsite dairy has fluctuated between 600 and 800 cows. To provide a conservative analysis, it is assumed that the lesser number of 600 cows are onsite. This is conservative because the existing emissions are subtracted from the Project emissions to provide the net emissions. The existing emissions are presented in Table 4.17-1.

Table 4.17-1: Existing Onsite Emissions

Source	Emissions (MTCO ₂ e per year)	Emissions (MMTCO ₂ e per year)
Dairy cow enteric fermentation and manure management	2,466	0.0025
Equipment exhaust	172	0.0002
Landscape, natural gas	2	<0.0001
On-road vehicle exhaust (summer)	80	0.0001
Total	2,720	0.0028
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents Source: Climate Change Analysis, Draft EIR Appendix L.		

Construction

The Project would emit greenhouse gases from the combustion of fuels from worker vehicles and construction equipment. Emissions of carbon dioxide from Project construction are shown in Table 4.17-2. The total of all phases of construction would result in 9,414 tons of carbon dioxide emissions (8,541 metric tons of carbon dioxide equivalents [MTCO₂e], or 0.009 million metric tons of carbon dioxide equivalent [MMTCO₂e]).

Table 4.17-2: Project Greenhouse Gas Emissions during Construction

Phase	Time Period	carbon Dioxide Emissions (tons)	Emissions (MTCO ₂ e)
Phase I			
Demolition	2/2009	26	24
Mass grading	2/2009-6/2009	974	884
Trenching	6/2009-7/2009	30	27
Asphalt	8/2009	69	63
Building	9/2009-12/2009	983	892
Fine grading	9/2009-12/2009	105	95
Building	1/2010-12/2010	2,914	2,644
Fine grading	1/2010-5/2010	127	115
Coating	6/2010-12/2010	20	18
Phase II			
Asphalt	1/2011	49	44
Building	2/2011-12/2011	2,303	2,089
Fine grading	2/2011-5/2011	102	93
Coating	6/2011-12/2011	17	15
Phase III			
Building	1/2015-12/2015	1,537	1,394
Fine grading	1/2015-6/2015	153	139
Coating	7/2015-12/2015	5	5
Total		9,414	8,541
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents, which is tons of carbon dioxide multiplied by 0.9072 multiplied by 1 - the global warming potential of carbon dioxide. Source: Climate Change Analysis, Draft EIR Appendix L.			

Operation

During operation of the Project, greenhouse gases would be emitted from motor vehicles (cars and trucks visiting the Project site), natural gas consumption, indirectly from electricity generation, indirectly from water transportation, landscape, fugitive refrigerants (air conditioning and refrigerators). A summary of the anticipated greenhouse gas emissions from operation of the Project is presented in Table 4.17-3. The emissions at buildout are shown because emissions in earlier years will be fewer because not all of the residential units would be constructed.

Table 4.17-3: Project Greenhouse Gas Emissions during Operation (Unmitigated)

Source	Emissions (MTCO ₂ e per year)	Emissions (MMTCO ₂ e per year)
Motor vehicles	23,010	0.023
Refrigerants	3,467	0.003
Natural gas	3,008	0.003

Table 4.17-3 (Cont.): Project Greenhouse Gas Emissions during Operation (Unmitigated)

Source	Emissions (MTCO ₂ e per year)	Emissions (MMTCO ₂ e per year)
Indirect electricity	2,209	0.002
Indirect Water transport	1,655	0.002
Hearth	126	<0.001
Landscape	8	<0.001
Subtotal	33,484	0.033
Existing*	-2,720	-0.003
Total	30,764	0.030
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalent MMTCO ₂ e = million metric tons of carbon dioxide equivalent, converted from MTCO ₂ e by dividing by 1,000,000. Source: Climate Change Analysis, Draft EIR Appendix L.		

Compliance with State Strategies

To assess compliance with California strategies to reduce greenhouse gas emissions, two main documents are used. The first is the 2006 Climate Action Team Report to Governor Schwarzenegger (2006 CAT Report) and the second is the ARB's early action measures for AB 32.

2006 Climate Action Team Report and AB 32

One of the greenhouse gas emission reduction targets proposed through Executive Order S-3-05 is to reduce the state's greenhouse gas emissions to 1990 levels by 2020. AB 32 sets a mandatory requirement to achieve the same reduction.

The 2006 CAT Report is not in response to AB 32; however, the 2006 CAT Report introduces strategies that can be implemented by the ARB and other California agencies to reduce California's emissions to 1990 levels by 2020, which is the same target for AB 32. In addition, the 2006 CAT Report is consistent with the intent of AB 32. AB 32 contains a timeline for development and approval of strategies to reduce state emissions. The bulk of the strategies are not yet developed. Therefore, in the absence of climate change thresholds and standards, the strategies published for Executive Order S-3-05 are used for this analysis because it contains the most complete list of strategies as of the date of this analysis.

A full assessment of Project consistency with the 2006 CAT Report strategies is contained in the Climate Change Analysis contained in Draft EIR Appendix L. The applicable strategies are shown in Table 4.17-4. As shown in the table, with mitigation, the Project is consistent with most of the applicable strategies, except the "Smart Land Use" strategies, which the Project is not seeking to comply with.

Table 4.17-4: California Greenhouse Gas Reduction Strategies

Strategy	Project Design/Mitigation to Comply with Strategy
Achieve 50 percent Statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989).	Consistent with mitigation measure GCC-2 and Project design features.
Zero Waste - High Recycling: Additional recycling beyond the State's 50 percent recycling goal.	
Urban Forestry: A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Consistent with mitigation. Mitigation requires that shade trees be provided.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	Consistent. The Project is going to use recycled water for the lakes and the open space landscaping. Additional mitigation (GCC-3) would require a landscape palette that minimizes water consumption.
Building Energy Efficiency Standards in Place and in Progress.	Consistent with mitigation. See discussion below this table.
Appliance Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	Consistent with mitigation measure GCC-1.
Smart Land Use and Intelligent Transportation Systems (ITS): Smart land use, demand management, ITS, and value pricing are critical elements for improving mobility and transportation efficiency.	The Project is not seeking to comply. See discussion below table.
Green Buildings Initiative: Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.	Consistent with mitigation; see discussion below table under Energy Efficiency Standards.
California Solar Initiative: Installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses; increased use of solar thermal systems to offset the increasing demand for natural gas; use of advanced metering in solar applications; and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Consistent with mitigation measure GCC-1.
Source: Climate Change Analysis, Draft EIR Appendix L.	

Energy Efficiency Standards

The Project would be required to comply with the most recent Title 24 standards for building construction. If the Project were to obtain permits in 2008, it would be required to comply with the 2005 Title 24 standards. As the Project is currently scheduled, it is possible that it would obtain permits in 2008 and therefore be required to comply with 2005 Title 24 standards. The 2005 Title 24 standards for residential construction provide an 18.3 percent reduction in electrical demand

compared with the 2001 standards. The 2005 Title 24 standards for residential construction provide an 8.3 percent reduction in natural gas demand compared with the 2001 standards.

The California Energy Commission is in the process of adopting 2008 Title 24 standards which will go into effect in 2009. The 2008 standards reduce electricity use in low-rise single-family residential detached homes by 22.7 percent compared with 2005 standards, peak demand is reduced by 10 percent, and gas is reduced by 10 percent.

Mitigation measure GCC-1 requires that the Project use 2008 Title 24 requirements for building the new homes, which would be consistent with the Green Buildings Initiative and increased energy efficiency standards.

Smart Land Use

There are numerous ways to reduce greenhouse gas emissions in California. As discussed above, pursuant to Executive Order S-3-05, the California Climate Action Team prepared strategies for reducing greenhouse gases. In addition, pursuant AB 32, the State of California is in the process of formalizing strategies. Planning and land use decisions play an important role in reducing emissions related to energy consumption and transportation. One of the strategies in the 2006 CAT Report is “smart land use,” also known as smart growth. The 2006 CAT Report indicates that specific smart land use strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridors; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.

Smart growth is also known as “walkable communities,” “new urbanist neighborhoods,” “compact development,” and “transit-oriented developments.” Smart growth advocates for better access and less traffic by mixing land uses, clustering development, and providing transit options. It is argued that smart growth creates safe, convenient, attractive, and affordable neighborhoods. Because smart growth is typically denser, it leaves room for open space, which conserves natural resources and provides communities with more parks and recreation.

Urban sprawl is the opposite of smart growth. It is the dispersion of a city over rural land and the fringes of the urban land. Sprawl is typically lower density single-family residential units, with a lack of activity centers and a lack of connectedness of the street network. People who live in sprawling communities typically have to drive more miles to get to work, school, and shopping centers. For example, in sprawling Atlanta, vehicles drove an average of 34 miles each day for every person living in the region. In condensed Portland, Oregon, vehicles drive fewer than 24 miles per person per day. Another study found that residents of most walkable neighborhoods drive 26 percent fewer miles per day compared with those living in sprawling areas.

Between 1992 and 1997, 1.2 million acres per year, or 7 million acres, of farm and ranch land was lost in the U.S. However, during 1982 through 1997, urbanized land grew by 47 percent but the U.S. population only grew by 17 percent. This would indicate that the U.S. is losing potential farmland by building on it. The economic benefits of retaining open space, parks, and agriculture can strengthen existing communities, attract businesses, and avoid the costs of sprawl.

The Project is incorporating medium- and high-density residential uses. Additionally, the Project is incorporating pedestrian design and open space. The low-density residential occupies the greatest percent of the total site acreage, at 36 percent. High-density residential occupies the least percent of the total site acreage, 6 percent. One of the Project objectives is to provide a mix of high quality low-, medium-, and high-density residential neighborhoods that all have access to the open space and water features of the development and are complemented by private recreational facilities and church/school uses, but with an emphasis on low-density single-family, large-lot homes.

The northern boundary of the Project site is 0.31 miles away from The Preserve Community Core. The center of the Project site is 0.69 miles from the boundary of the Community Core. According to The Preserve EIR, the Community Core is planned to include an elementary and/or junior high school and learning center. The uses allowed in the Community Core are commercial, retail, office, entertainment, and residential uses. In theory, because the Project is approximately one mile from the Community Core, people could walk or bicycle to the Core, which would reduce trips.

The Project site is currently designated primarily for agricultural and open space uses under The Preserve Specific Plan. Project implementation would require that the land use designations be modified to permit residential and ancillary uses. Proposed residential uses would emphasize low-density single-family, large-lot homes. This is not considered smart growth; however, the Project objectives do not seek to be in compliance with the “Smart Land Use” strategy to reduce California’s greenhouse gas emissions to 1990 levels by 2020.

ARB Early Action Measures for AB 32

Under AB 32, the ARB has the primary responsibility to reduce greenhouse gas emissions in California. The ARB published a list of early action measures that it will take to reduce greenhouse gases in California. The ARB anticipates that these early action measures will reduce 2020 target emissions by 25 percent. Other measures will follow in the coming years.

A review of the ARB’s reduction measures underway or to be initiated by the ARB in the 2007 to 2012 timeframe indicates that only a few measures would be applicable to the Project. Some of the measures are regulatory and some are non-regulatory. Many of the measures have not been considered by the ARB yet. Therefore, if the Project voluntarily chooses to be consistent with the strategies, then it would be consistent with the State’s strategies to reduce climate change ahead of schedule.

The Cool Communities Program has strategies to incorporate cool roofs, cool pavements, and shade trees in an effort to reduce heating and cooling needs. With mitigation measure GCC-1b, the Project is consistent with this strategy.

Project Design Features that Reduce Greenhouse Gases

The Project has incorporated the following design features that would reduce greenhouse emissions.

Community Paseo and Open Space System

A community paseo and open space system within the Edgewater Project is planned as a system of trails and linear open spaces that connect the major features of the Project with the approved features of The Preserve, providing pedestrian and bicycling opportunities within the Project site and surrounding area. The Project paseo and open space system would link the existing and planned neighborhoods within The Preserve with the open space, water, and natural features within the Project site.

The recreational opportunities provided within the Project reduce the number of vehicle trips outside of the Project for those uses. A reduction in the vehicle trips or vehicle miles traveled corresponds to a decrease in emissions from those vehicles.

Transit Mobility

The transit system planned for The Preserve is two-tiered, consisting of a local, on-site transit system and regional bus service. The Project will be linked to The Preserve's Community Core via paseos and local collector roads. Pedestrian access to transit opportunity at the Community Core will be possible via the trail system contained within the paseos.

The center of the Project is approximately one mile from the community center transit stops. The residents on the Project site may bicycle to the transit site, which would reduce emissions associated with trips made in single-occupancy vehicles.

Bicycle Mobility

The Project bicycle system is planned to connect major features of the Project with the approved features of The Preserve, and to connect with the regional bicycle system. The area bicycle system is composed of on-street (Class II) and off-street (Class I) pathways. In many instances, the Class I facilities are incorporated into the community paseo and open space system.

The inclusion of bicycle lanes and pathways encourage residents to use bicycles to travel to areas within and outside of the Project.

Recycling

During operation of the Project, the tenants of the residential units will generate waste. To minimize the waste, recycling and yard waste pickup for single-family homes is provided by the City of Chino via Waste Management. Recycling helps to decrease emissions associated with mineral extraction.

Recycled Water

The Project will have a dual (potable and recycled) water system. An isolated potable system will be developed for the Project. This system will obtain water from a well drilled along Schaefer Avenue between Euclid and Bon View Avenues in the City of Ontario, planned to be piped to the Edgewater Project site.

The Project will utilize recycled water for irrigation of all open space areas within the Project site, including common landscaping along the street rights-of-way, as well as other public spaces. The lakes will be filled with recycled water.

Currently, the City's average total water demand is approximately 21,000 acre-feet per year (AFY). At build-out, the Project will increase water demand by approximately 1,094 AFY of water (484 AFY of potable water and 610 AFY of recycled water) yielding a total Projected City demand of 31,048 AFY by 2021.

The use of recycled water reduces indirect air emissions associated with electricity required for the transport of the water to the Project.

Onsite Greenhouse Gas Reduction Opportunities

Although not required by statute or regulation, there are voluntary greenhouse gas reduction strategies available for projects to reduce greenhouse gas emissions. The Chino General Plan includes air quality policies that potentially reduce energy use and vehicle miles traveled. The California Attorney General has commented on other projects and has provided suggestions on ways to reduce overall impacts. These policies and measures are assessed in the Climate Change Analysis contained in Draft EIR Appendix L. The applicable and feasible measures are contained as mitigation measures below.

The California Attorney General's Office indicates that a Lead Agency may consider whether carbon offsets would be appropriate. The Project could fund offsite projects that would reduce carbon emissions or could purchase credits from another entity that would fund such projects. However, there are a number of uncertainties associated with purchasing offsets, including the permanence, price fluctuations, ownership, verification, and additionality (which refers to additional steps taken to reducing greenhouse gas emissions beyond business as usual). It was determined in the Climate Change Analysis (Appendix L) that carbon offsets are not feasible at this time.

Level of Significance Before Mitigation

Less than significant. The Project is partially consistent with State strategies to reduce greenhouse gas emissions to 1990 levels. Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GCC-5 are offered to further reduce impacts.

Mitigation Measures

- GCC-1** To increase energy efficiency, the Project shall implement the following measures.
- a) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Green Buildings Initiative), all buildings/units are required to be designed to meet 2008 Title 24 requirements. If Project building permits are obtained when post-2008 Title 24 requirements are in place, the Project shall be designed to meet those requirements.
 - b) Consistent with the California Air Resources Board, AB 32 Early Action Measures: all buildings within the Project shall use cool paints; the Project shall incorporate cool pavements in the driveway areas; and the Project shall incorporate a minimum of two shade trees on the south and west sides of each of the low-density residential units.
 - c) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (California Solar Initiative), the Project developer shall offer photovoltaic cells (solar panels) to the single-family residential units. The Project shall install solar panels to generate a minimum of 500,000 kilowatt-hours per year collectively from the solar panels located on the roofs of the structures within the Project.
 - d) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Appliance Energy Efficiency Standards in Place and in Progress), the Project shall incorporate energy efficient appliances (i.e., dishwashers, washer, dryer, refrigerator, stoves, etc.) where they are provided by the developer. The Project shall also incorporate energy efficient exterior lighting and compact fluorescent lights in residential units.
- GCC-2** Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Zero Waste - High Recycling and Achieve 50 percent Statewide Recycling Goal), the Project shall do the following:
- a) Prior to issuance of a grading permit, the applicant shall prepare a Waste Management Plan for review and approval by the Community Development Department with the goal of reducing waste during construction by 50 percent.
 - b) As possible, the soil removed from the Project during demolition shall be used in the re-grading of the Project site and/or for landscape purposes to avoid placement in a landfill.

- c) Recycling shall be mandated at the multi-family housing residential areas. Appropriate collection and storage space for recycling shall be allocated at the multi-family housing areas.

GCC-3 Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Water Use Efficiency), a comprehensive water conservation strategy shall be prepared and submitted for review and approval by the Community Development Department prior to the issuance of grading permits. The strategy shall include the specific items that follow, plus other innovative measures that are appropriate for the location.

- a) Tankless water heaters shall be installed in all of the residential units.
- b) The landscaping in the open space areas shall use drought-resistant plants. The residential areas shall have a limit on the amount of turf (grass) of a maximum of 25 percent of the total yard.
- c) Water efficient design shall be used for buildings.
- d) Homeowner's Association(s) shall be audited for their water use to promote efficient water use.

GCC-4 To reduce vehicle miles traveled and emissions associated with trucks and vehicles, the following measures shall be implemented:

- a) Onsite bicycle storage parking shall be provided where designated by the City of Chino Community Development Department in areas that are non-residential land uses.
- b) The applicant shall pay its fair share contribution in traffic impact fees and coordinate with the City regarding intersections within the Project vicinity, such that traffic passes more efficiently through congested areas. If signals are installed as part of the Project, Light Emitting Diode traffic lights shall be installed.
- c) Landscape equipment used to maintain the public areas in the development shall be electric. This measure would be applicable to the Homeowner's Association.
- d) Information regarding public transit shall be displayed at the church and school.

GCC-5 The Project shall either plant 500 canopy-type trees onsite or contribute to an organization that plants trees sufficient funds to plant a minimum of 500 trees in California. Information regarding the area that the trees are to be planted, the organization (if applicable), and the date the trees will be planted shall be provided to the City prior to complete buildout of the Project.

Level of Significance After Mitigation

Less than significant. With the Project design features, mitigation measures in this analysis, and the mitigation measures in the Air Quality Analysis (Draft EIR Section 4.3), the Project would comply with most of the applicable State strategies in the 2006 CAT Report to reduce greenhouse gases to levels proposed under Executive Order S-3-05.

Impacts to Project from Climate Change

Impact GCC-2:	The impacts of climate change would not significantly impact the Project.

Impact Analysis

AB 32 indicates that “the potential effects of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snow pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidence of infections, disease, asthma, and other health-related problems” (State of California 2006, AB 32, section 38501[a]).

The California Climate Change Center (2006) published a report that assesses the risks of climate change to California. The following is a summary of the potential risks to California from that report:

- A reduction in the Sierra snow pack could result a reduction in hydropower, which comprises about 15 percent of California’s in-state electricity production.
- A reduction in the Sierra snow pack could result in a loss of winter recreation from insufficient snow for skiing and snowboarding.
- A decrease in water supply could also negatively impact the food supply that depends on that water for use.
- Climate change could also increase temperatures, leading to decreased supply of certain agricultural products such as wine, fruit, nuts, and milk. California farmers may also have to face increasing threats from pests and pathogens.
- Climate change could also result in increasing wildfires. If temperatures rise into the medium range, the risk of fires in California could increase as much as 55 percent.
- Climate change could result in plant and animal species relocating to cooler more habitable “up slope” locations.
- Climate change could negatively affect the health and productivity of California’s forests. The productivity of mixed conifer forests is expected to diminish as much as 18 percent by the end of the century.
- A rise in sea levels could result in increased coastal floods and shrinking beaches.

Analysis of Potential Impacts

The following is an analysis of the potential of climate change to impact the Project:

- Air quality problems could increase due to increased use of electricity to cool, which may result in increased indirect emissions. The Project would not significantly be impacted by this effect as mitigation and Project design increase energy efficiency of the Project.
- Although it is not anticipated that the Project would directly obtain its potable water from the Sierra snow pack but from an underground well, the Project attempts to incorporate all feasible water efficiency measures thereby reducing the use of water.
- The elevation of the Project site ranges from approximately 508 to 579 feet above mean sea level, which would likely not be threatened by rising sea waters.
- The Chino Valley Independent Fire District indicated that the Project site is near a “wildland-interface area.” There are no significant wildland fire impacts anticipated for the Project, however.

In summary, climate change impacts to the proposed Project are anticipated to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GGC-5 are offered to further reduce impacts.

Level of Significance After Mitigation

Less than significant.

Cumulative Impacts

Impact GCC-3:	The Project would not cumulatively impact the environment through its emissions of greenhouse gases as such gases are defined in AB 32.

Impact Analysis

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: Either: (A) A list of past, present, and probable future Projects producing related or cumulative impacts, including, if necessary, those Projects outside the control of the agency, or (B) A summary of Projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

Even a very large individual project cannot generate enough greenhouse gas emissions to influence climate change, as it is a project's incremental contribution combined with the cumulative increase of all other sources of greenhouse gases that form anthropogenic climate change impacts. However, the theory that an increase of one molecule of an air pollutant constitutes significant increase (one-molecule theory) should not be the basis of a de-facto significance threshold, as discussed in the decision for *Community for a Better Environment v. California Resources Agency* (103 Cal. App. 4th 98 (2002): "this does not mean, however, that any additional effect in a nonattainment area for that effect necessarily creates a significant cumulative impact; the 'one [additional] molecule rule' is not the law."

A cumulative greenhouse gas threshold has not been established by the SCAQMD, ARB, or other public agency. An individual project contributes to cumulative greenhouse gas emissions through construction, increased vehicular travel, and increased energy consumption. Each project can reduce its own greenhouse gas emissions through project-level review and mitigation. However, the cumulative impact of greenhouse gas emissions, and therefore climate change, cannot be mitigated on a piecemeal, case-by-case basis. It is the regional development pattern, land use, and transportation policies that determine the cumulative impact in which a project participates.

Large-scale assessments and emission reduction strategies must be formulated to evenly address greenhouse gas emissions on a regional level that includes land use patterns, energy generation and consumption, transportation, water transport, waste disposal, and the other major sources of greenhouse gas emissions. A region-specific plan would create the basis of a cumulative threshold and provide a platform for cumulative analysis on the project level. However, no such plan is currently available.

The Project is applying various mitigation measures, design features, and is consistent with most of the applicable State strategies to reduce greenhouse gas emissions; therefore, the Project would result in a less than significant cumulative-level impact.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

Refer to Mitigation Measures GCC-1 through GCC-5. Although the impact is less than significant before mitigation, Mitigation measures GCC-1 through GCC-5 are offered to further reduce impacts.

Level of Significance After Mitigation

Less than significant.

4.17.6 - Relationship of Edgewater Communities Mitigation Measures to The Preserve EIR Mitigation Measures

The Preserve EIR identified mitigation measures to mitigate or avoid significant environmental effects (see Section 5, List of Mitigation Measures, for a complete listing of The Preserve EIR Mitigation Measures by issue area). However, those mitigation measures do not specifically refer to greenhouse gas emissions. An analysis of the air quality mitigation measures in the Preserve EIR is contained in Section 4.3, Air Quality of this Draft EIR.

SECTION 5: MITIGATION MEASURES

5.1 - Edgewater Communities Mitigation Measures

Aesthetics - Edgewater Communities

No Project mitigation measures.

Agricultural Resources - Edgewater Communities

- AG-1 Agricultural Land Preservation.** The applicant shall mitigate the loss of 170.4 acres of agricultural lands, on a one-to-one basis, by selecting one or more of the items described below. The applicant shall submit written verification of the applicant's compliance with this mitigation measure to the Director of Community Development's satisfaction at the time of recordation of final tract maps and parcel maps for urban development or support facilities as contemplated in the proposed Project. Compliance with this condition may be phased as the Project is developed. The amount of agricultural land to be mitigated shall be equal to the amount of land being developed as each phase is developed.
- a) Funding and/or purchase of agricultural conservation easements. Such easements shall be accepted or purchased and monitored and enforced by a land trust or another appropriate entity. Funds may be used for easement purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or
 - b) Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California. Funds may be used for purchases, ongoing monitoring and enforcement, transaction costs, and reasonable administrative costs; or
 - c) Purchase of credits. Purchase of credits from an established agricultural farmland mitigation bank approved by an applicable governmental authority.

During the life of the project, if the City of Chino or other responsible agency adopts an agricultural land mitigation program that provides equal or more effective mitigation than the measures listed above, the applicant may choose to participate in that alternate program to mitigate loss of agricultural land impacts. Prior to participation in the alternate program, the applicant shall obtain written approval from the City of Chino agreeing to the participation, and the applicant shall submit written verification of compliance with the alternate program at the same time.

Agricultural land used for mitigation shall be of at least equal agricultural classification as the land being converted, or be capable of being developed as such.

Alternately stated, mitigation land shall be classified or developed as Prime Farmland, Unique Farmland, etc. (as established by the California Department of Conservation in the Farmland Mapping and Monitoring Program), the mitigation acreage being at least equivalent in classification to the converted land, or being capable of producing the same or equivalent crops as the land being converted.

Completion of the selected mitigation measure, or with the Director of Community Development's approval, a combination of the selected mitigation measures, can be on qualifying agricultural land within the Chino area, or outside the area with written evidence presented by a qualified professional that the same or equivalent crops can be produced on the mitigation land.

Air Quality - Edgewater Communities

AQ-1 Prior to construction of the Project, the Project proponent shall provide a Fugitive Dust Control Plan that would describe the application of standard best management practices to control dust during grading and construction. The plan shall be consistent with the South Coast Air Quality Management District (SCAQMD) requirements. The Fugitive Dust Control Plan shall be submitted to the City of Chino and SCAQMD prior to the start of grading or construction. Best management practices to be included in the Plan shall include the following:

- Application of water on disturbed soils a minimum of two times per day;
- Covering haul vehicles;
- Replanting disturbed areas as soon as practical;
- Restricting vehicle speeds on unpaved roads to 15 miles per hour;
- Installing wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip;
- Sweeping off site streets if silt is carried over to adjacent public thoroughfares;
- Suspend grading operations when instantaneous wind gust speeds exceed 25 miles per hour;
- Ensure that all trucks hauling dirt, sand, soil, or other loose materials are covered or maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114;
- Cessation of grading operations during first and second stage smog alerts; and
- Other measures, as deemed appropriate to the site, to control fugitive dust.

AQ-2 During Project construction, construction equipment shall be properly maintained at an offsite location; maintenance shall include proper tuning and timing of engines.

Equipment maintenance records and equipment design specification data sheets shall be kept onsite during construction.

AQ-3 During Project construction, the developer shall require all contractors to turn off all construction equipment when not in use.

AQ-4 Prior to Project construction, the Project proponent shall provide a traffic control plan that would describe in detail safe detours around the Project construction site and provide temporary traffic control (i.e., flag person) during demolition debris transport and other construction related truck hauling activities.

AQ-5 During mass grading activities, off-road construction vehicles shall: 1) be Tier II equipment; 2) be Tier III equipment; 3) utilize lean NO_x catalysts; and/or 4) utilize oxidized-diesel catalysts.

AQ-6 During Project construction, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.

AQ-7 During Project construction, asphalt paving shall not take place on the same day as other activities involving off-road construction equipment.

AQ-8 Installation of open-hearth wood-burning fireplaces shall be prohibited. Natural gas-burning fireplaces shall be installed where builders are including fireplaces for their projects.

Biological Resources - Edgewater Communities

BR-1 In conjunction with the 30 acres of restored grassland habitat (BR-9) and prior to the passive relocation of any BUOW within the Project footprint, a conservation easement shall be established and deeded to an agency that provides land stewardship for the 22.9 acres that are to be avoided within Mill Creek to ensure this area is preserved in perpetuity for LBV and other riparian species.

BR-2 Construction activity within 500 feet of riparian habitat should not occur during the LBV nesting season, from April 1 through July 31. If construction activity is required within 500 feet of riparian habitat within Mill Creek during the nesting season, an experienced LBV biologist would be required to determine if any avian nests exist. If LBV nests are located, no construction activity shall be permitted that would subject the nest to noise higher than 60 dBA during the nesting season. The LBV biologist will act as the construction monitor and will be onsite during construction activity to monitor for any LBV within the vicinity of the site or nesting

activity by any avian species. If no LBV or nesting activity occurs, then construction can continue.

- BR-3** The proposed Project shall avoid the use of invasive and non-native plant species identified by the California Invasive Plant Council (a listing of which is contained in Appendix D of the Draft EIR). The final landscape plans will be reviewed and verified by the City of Chino to ensure that invasive species will not be used. Maintenance of the landscape areas will include the removal of invasive plants that may establish through natural dispersal mechanisms.
- BR-4** A Pest/Turf Management Plan for common areas within the Project shall be prepared by the Applicant for review and approval by the City as part of required landscape plans to ensure that fertilizers and pesticides do not enter habitat areas.
- BR-5** No outdoor lighting within suitable LBV habitat shall be permitted. In addition, adjacent night lighting shall be reduced to the greatest extent practicable and designed with hoods or shields that reduce the amount of light spilling into the habitat.
- BR-6** No recreational sport fields or structures shall be permitted within 250 feet of riparian habitat suitable to LBV. A plan for use of the Open Space-Recreation designated areas on the Project site shall be prepared demonstrating to the City that intrusive noise, lighting, and motion into the occupied LBV habitat shall not occur. Intrusion into the Mill Creek habitat area by people and/or pets shall not be permitted. Signs shall be posted around the perimeter of the Mill Creek habitat area that people and their pets are not permitted entry.
- BR-7** All trails will be posted with signs that dogs must remain leashed.
- BR-8** Project residents having pet cats shall be encouraged through distribution of an informational flyer to have them remain indoors.
- BR-9** In order to avoid temporal loss of BUOW habitat, another conservation easement shall be established for the 30 acres of restored native grassland habitat, and deeded to an agency that provides land stewardship to ensure preservation in perpetuity. This should be done prior to the passive relocation of any BUOW within the Project footprint, and in conjunction with the conservation easement for the 22.9 acres of riparian habitat along Mill Creek to be preserved (BR-1).
- BR-10** The Applicant shall provide to the City for review and approval as part of required landscape plans a planting plan to establish and manage appropriate vegetation for

the three detention basins and perimeter slopes, prepared by a qualified raptor and/or restoration biologist.

- BR-11** To avoid direct harm to BUOWs, burrows occupied by BUOWs must be avoided by 75 meters during the nesting season (February to August) and by 50 meters outside of the nesting season (September to January). Occupied burrows should not be disturbed during the nesting season unless a qualified biologist approved by the CDFG verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- BR-12** If BUOWs must be moved away from the disturbance area, passive relocation techniques will be used. At least one or more weeks will be necessary to accomplish this to allow the BUOWs to acclimate to alternate burrows. Once all burrows on the Project site are confirmed to be absent of BUOWs, they will be systematically collapsed. New burrows shall be created (by installing artificial burrows at a ratio of 2:1 for every occupied burrow removed) on the grassland restoration area and the detention basins so that the BUOWs have alternate burrows to relocate. Where feasible, these burrows shall be built at least two weeks prior to the passive relocation effort. Prior to the passive relocation of the BUOW on the Project site, all BUOWs to be relocated shall be banded. Follow-up surveys to determine the fate of the passively relocated BUOWs shall be required to determine the success of the program.
- BR-13** A 30-day preconstruction survey for BUOW must be conducted so that all occupied burrows can be mapped and a strategy developed so that harm to BUOWs resulting from Project construction is avoided.
- BR-14** Prior to the passive relocation of any BUOWs within the Project footprint, a BUOW relocation and habitat management plan that incorporates the above mitigation measures shall be submitted and approved by the CDFG and the City of Chino.
- BR-15** To compensate for the loss of suitable nesting habitat for loggerhead shrike, open space areas associated with the Project site shall be enhanced with native shrubs suitable as nest sites. This could include the planting of shrubby species such as Mexican elderberry.
- BR-16** Removal of vegetation or other potential nesting bird habitat shall be conducted outside of the avian nesting season (February through August). If removal of vegetation occurs during the avian nesting season, a preconstruction nesting bird survey shall be conducted no more than 7 days prior to this activity. If birds are

found to be nesting within or near the impact area, a buffer where no construction activities would occur would need to be established by a qualified biologist. This biologist would also determine if the nest is not currently active or when the nest is no longer active, at which time construction could resume.

- BR-17** Prior to the issuance of any grading permits, the Project Proponent shall be required to pay impact fees for the perpetual management and maintenance of all biological resources protected by conservation easements. These resources include, but are not limited to, the 22.9 acres that are to be avoided within Mill Creek, as described in Edgewater Mitigation Measure BR-1, and the restored native grassland habitat, as described in Edgewater Mitigation Measure BR-9. A conservancy selected by the City, in collaboration with the City, shall determine the amount of these fees and manage the biological resources in these areas in perpetuity.

Cultural Resources - Edgewater Communities

- CR-1** A City-approved Project Archaeologist with background in the historic resources of the City of Chino shall create a mitigation monitoring plan to direct archaeological monitoring prior to earthmoving in the Project area, as directed in CR-2. A pre-grade meeting to review the details of that plan must occur between the monitoring archaeologist(s) and the grading contractor before grading begins. The plan must discuss contingency plans associated with Native American tribal representation if any prehistoric artifacts are found during earthmoving. These artifacts may potentially be considered sacred items by one or more Native American tribes. The mitigation monitoring plan must contain a description of how and where artifacts will be curated if found during monitoring.
- CR-2** Once a depth below the modern ground surface of 3 feet is reached, full-time monitoring shall be required during all construction-related earthmoving. The Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected after 50 percent of the qualifying ground has been graded. If buried cultural resources are detected during monitoring, monitoring must continue until 100 percent of virgin earth within the Project area has been disturbed and inspected by the monitor(s).
- CR-3** Should previously unidentified cultural resource sites, prehistoric or historic cultural resources be encountered during monitoring, they should be Phase II tested and evaluated for significance following CEQA Guidelines prior to allowing a continuance of grading in the area.
- CR-4** The locations of seven historic pending sites (P871-8H, P871-9H, P871-10H, P871-11H, P871-12H, P871-16H, and P871-22H) shall be carefully monitored during

grading of the Project area. Should subsurface manifestations of these sites be uncovered during grading, their qualities shall be documented by the monitoring archaeologist for inclusion in the monitoring report.

- CR-5** If geotechnical investigations must take place within 250 feet of any known cultural resource site in the Project area, the geotechnical investigation must be monitored by a qualified archaeologist.
- CR-6** Construction-related earthmoving must be monitored by one (1) qualified Native American monitor. The monitor must belong to the Tribe or be a known descendant of the Gabrieliño Band of Mission Indians.
- CR-7** Prior to any clearing and grubbing and/or earthmoving activities on the Project area, a qualified Project Paleontologist retained by the Project Proponent and approved by the City shall review the approved development and construction plans. The Project Paleontologist shall participate in a pre-construction Project meeting with the development Staff to ensure an understanding of the mitigation measures required during construction.
- CR-8** Once a depth of 5 feet is reached during grading or trenching, paleontologic monitoring of any earthmoving will be conducted by a qualified monitor, under direct guidance of a Project Paleontologist. Earthmoving in areas of the Project site where previously undisturbed sediments will be buried but not otherwise disturbed will not be monitored. Non-virgin soils need not be monitored.
- CR-9** If fossil remains are found, the Project Paleontologist shall develop a storage agreement with a museum repository acceptable within the City or County to allow for the permanent storage and maintenance of any fossil remains recovered in the Project area as a result of the mitigation program, and for the archiving of associated specimen data and corresponding geologic and geographic site data. Any recovered fossil remains will be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains then will be curated (assigned and labeled with museum repository fossil specimen numbers and corresponding fossil site numbers, as appropriate, placed in specimen trays and, if necessary, vials with completed specimen data cards) and catalogued. Associated specimen data and corresponding geologic and geographic site data will be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized databases) at the museum repository by a laboratory technician. The remains then will be accessioned into the museum repository fossil collection, where they will be permanently stored and

maintained. The associated specimen and site data will be made available for future study by qualified investigators.

- CR-10** A final report of findings shall be prepared by the Project Paleontologist for submission to the City, and the museum repository following accessioning of the specimens into the museum repository fossil collection. The report will describe Project site geology/stratigraphy, summarize field and laboratory methods used, include a faunal list and an inventory of curated/catalogued fossil specimens, evaluate the scientific importance of the specimens, and discuss the relationship of any newly recorded fossil site within the Project site to relevant fossil sites previously recorded from other areas.

Geology and Soils - Edgewater Communities

Design features and adherence to geotechnical investigation recommendations. No Project mitigation measures.

Hazards / Hazardous Materials - Edgewater Communities

- HHM-1** Prior to demolition of any onsite structures and prior to issuance of grading permits, the Applicant shall submit a site Remediation Program to the Building Division and Public Works Department for review and approval to address the existing hazardous materials identified in Section 4.7 of the Draft EIR. This Remediation Program shall:
- Incorporate the recommendations of the URS and Laguna Geosciences Phase I Environmental Site Assessments, and the URS Phase II Soil Investigation for testing and remediation not yet satisfied;
 - Incorporate a plan for State-regulated abandonment of water wells onsite;
 - Require the evaluation of onsite structures for the presence of asbestos and lead-based paint, and the removal of such materials according to the applicable regulations and guidelines established by the South Coast AQMD, Department of Toxic Substances Control, and the US Environmental Protection Agency; and
 - Specify further soil testing once mass grading has occurred to determine if any soils contain elevated levels of nitrates/nitrites, and incorporate remediation measures to address elevated levels of nitrates/nitrites if discovered.

Hydrology and Water Quality - Edgewater Communities

Design features, compliance with applicable regulations, and adherence to Project WQMP. No Project mitigation measures.

Land Use and Planning - Edgewater Communities

Design features. No Project mitigation measures.

Mineral Resources - Edgewater Communities

No mitigation measures are required.

Noise - Edgewater Communities

N-1 At the time the grading permit application is submitted, the Project applicant shall submit a construction noise mitigation plan to the City of Chino for review and approval. The plan shall depict the location of construction equipment and describe how noise would be mitigated through methods such as, but not limited to, locating stationary noise-generating equipment (such as pumps and generators) as far as possible from nearby noise-sensitive receptors. Where practicable, noise-generating equipment will be shielded from nearby noise-sensitive receptors by noise-attenuating buffers such as structures or haul trucks/trailers. Onsite noise sources such as heavy equipment located less than 200 feet from noise-sensitive receptors will be equipped with noise-reducing engine housings. Portable acoustic barriers able to attenuate at least 6 dB will be placed around noise-generating equipment located within 200 feet of both existing residences and occupied residences of completed Project phases. Water tanks and equipment storage, staging, and warm-up areas shall be located as far from noise-sensitive receptors as possible. All noise attenuation measures identified in the plan shall be incorporated into the Project.

N-2 Construction activities shall adhere to the following noise requirements:

- All construction equipment shall utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- Hours of construction shall comply with those established in Section 15.44.030 of the Chino Municipal Code. Those hours are weekdays and Saturdays from 8:00 a.m. through 7:00 p.m. Construction is prohibited on Sundays and Federal holidays.

Population and Housing - Edgewater Communities

No mitigation measures required.

Public Services - Edgewater Communities

No mitigation measures required.

Recreation - Edgewater Communities

No mitigation measures.

Transportation and Traffic - Edgewater Communities

T-1 The Project applicant shall either construct certain improvements or pay a fair share mitigation fee for improvements, to be determined by the City of Chino, for improvements at the following intersections to mitigate impacts for the 2019 Interim Year condition:

City of Chino:

- SR-71 Freeway Northbound Ramps (NS) at:
 - 5. Pine Avenue (EW)
- El Prado Road (NS) at:
 - 7. Pine Avenue (EW)
- Euclid Avenue (SR-83) (NS) at:
 - 11. Edison Avenue (EW)
 - 12. Eucalyptus Avenue (EW)
 - 13. Merrill Avenue (EW)
 - 14. Kimball Avenue (EW)
 - 15. Bickmore Avenue (EW)
 - 16. Pine Avenue (EW)
- Euclid Avenue (SR-83)/Butterfield Ranch Road (NS) at:
 - 18. SR-71 Freeway Southbound Off-Ramp/Shady View Drive (EW)
- Mill Creek Road (NS) at:
 - 20. Kimball Avenue (EW)
- Chino Corona Road / Mill Creek Road (NS) at:
 - 22. Pine Avenue (EW)
- Cucamonga Avenue (NS) at:
 - 23. Chino Corona Road (EW)
 - 52. Project Site Access Road (EW) [Future Intersection]
- Main Street (NS) at:
 - 29. Pine Avenue (EW) [Future intersection]
- Main Street/North East Project Site Access Roadway (NS) at:
 - 30. Chino Corona Road (EW) [Future intersection]

Counties of San Bernardino/Riverside:

- Hellman Avenue (NS) at:
 - 33. Kimball Avenue/Limonite Avenue (EW) [Future Intersection]
 - 34. Pine Avenue/Schleisman Road (EW)
 - 35. Chino Corona Road/Chandler Street (EW)

County of Riverside:

- Archibald Street (NS) at:
 - 37. Schleisman Road (EW)
 - 39. River Road (EW)
- Harrison Avenue (NS) at:
 - 44. Schleisman Road (EW)
- Sumner Avenue (NS) at:
 - 45. Schleisman Road (EW)
- Cleveland Avenue (NS) at:

46. Schleisman Road (EW)

- T-2** The Project applicant shall adhere to the following provisions regarding Project circulation and landscape improvements:
- Landscape plans shall incorporate the line of sight at Project access points to ensure that fences, signs, trees, shrubs, etc. do not block the line of sight.
 - Internal traffic signing/stripping shall be implemented in conjunction with detailed construction plans for the Project.
 - Stop sign control for the Project site access driveways shall be provided.
 - The Project internal spine road shall be constructed to Specific Plan/collector roadway standards.
 - Cucamonga Avenue shall be constructed from Project entry to Chino Corona Road to match the planned street section north of Chino Corona Road, which is a Local Collector (two lanes) with Paseo (83' right-of-way).
 - Chino Corona Road adjacent to the site shall be constructed at its half section width as a local collector (66' right-of-way) in conjunction with Project development.
- T-3** The Project applicant shall pay fair share fees, to be established by the City of Chino, for improvements to the Post-2030 circulation network to accommodate Project traffic.

Utilities and Service Systems - Edgewater Communities

- U-WW-1** Construction contractors utilized for construction of Project infrastructure for the utility systems (potable water, recycled water, sanitary sewer and/or storm drain) shall be required to follow Best Management Practices to limit short-term construction-related impacts.
- U-WW-2** Sewer systems below the 566' elevation shall be designed as sealed systems to mitigate the potential high inflow and infiltration into the sewer system. All manhole covers and clean-out covers with elevations lower than 566' shall have bolted covers with pressure plated assemblies. All sewer structures including wet wells, junction structures, flow splitters, and manholes that extend below the 566' elevation shall be plastic lined, and include water-stops at all construction and expansion joints.
- U-WW-3** Design, construction, and timing of wastewater facilities shall conform to the hydraulic criteria presented in the Sewer Master Plan Update, Subareas 1 and 2 (Bureau Veritas North America, Inc., November 2007).

- U-SD-1** Design, construction, and timing of storm drain facilities shall conform to the hydraulic criteria presented in the Storm Drain Master Plan Update, Subarea 2 (Bureau Veritas North America, Inc., December 2007).
- U-W-1** The applicant/developer and the City of Chino shall work to include sustainable systems for use of water and energy with the Project design.

Climate Change and Greenhouse Gases

- GCC-1** To increase energy efficiency, the Project shall implement the following measures.
- a) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Green Buildings Initiative), all buildings/units are required to be designed to meet 2008 Title 24 requirements. If Project building permits are obtained when post-2008 Title 24 requirements are in place, the Project shall be designed to meet those requirements.
 - b) Consistent with the California Air Resources Board, AB 32 Early Action Measures: all buildings within the Project shall use cool paints; the Project shall incorporate cool pavements in the driveway areas; and the Project shall incorporate a minimum of two shade trees on the south and west sides of each of the low-density residential units.
 - c) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (California Solar Initiative), the Project developer shall offer photovoltaic cells (solar panels) to the single-family residential units. The Project shall install solar panels to generate a minimum of 500,000 kilowatt-hours per year collectively from the solar panels located on the roofs of the structures within the Project.
 - d) Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Appliance Energy Efficiency Standards in Place and in Progress), the Project shall incorporate energy efficient appliances (i.e., dishwashers, washer, dryer, refrigerator, stoves, etc.) where they are provided by the developer. The Project shall also incorporate energy efficient exterior lighting and compact fluorescent lights in residential units.
- GCC-2** Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Zero Waste - High Recycling and Achieve 50 percent Statewide Recycling Goal), the Project shall do the following:
- a) Prior to issuance of a grading permit, the applicant shall prepare a Waste Management Plan for review and approval by the Community Development

Department with the goal of reducing waste during construction by 50 percent.

- b) As possible, the soil removed from the Project during demolition shall be used in the re-grading of the Project site and/or for landscape purposes to avoid placement in a landfill.
- c) Recycling shall be mandated at the multi-family housing residential areas. Appropriate collection and storage space for recycling shall be allocated at the multi- family housing areas.

GCC-3

Consistent with the California Climate Action Team strategies for reducing greenhouse gas emissions to 1990 levels by 2020 (Water Use Efficiency), a comprehensive water conservation strategy shall be prepared and submitted for review and approval by the Community Development Department prior to the issuance of grading permits. The strategy shall include the specific items that follow, plus other innovative measures that are appropriate for the location.

- a) Tankless water heaters shall be installed in all of the residential units.
- b) The landscaping in the open space areas shall use drought-resistant plants. The residential areas shall have a limit on the amount of turf (grass) of a maximum of 25 percent of the total yard.
- c) Water efficient design shall be used for buildings.
- d) Homeowner's Association(s) shall be audited for their water use to promote efficient water use.

GCC-4

To reduce vehicle miles traveled and emissions associated with trucks and vehicles, the following measures shall be implemented:

- a) Onsite bicycle storage parking shall be provided where designated by the City of Chino Community Development Department in areas that are non-residential land uses.
- b) The applicant shall pay its fair share contribution in traffic impact fees and coordinate with the City regarding intersections within the Project vicinity, such that traffic passes more efficiently through congested areas. If signals are installed as part of the Project, Light Emitting Diode traffic lights shall be installed.
- c) Landscape equipment used to maintain the public areas in the development shall be electric. This measure would be applicable to the Homeowner's Association.
- d) Information regarding public transit shall be displayed at the church and school.

- GCC-5** The Project shall either plant 500 canopy-type trees onsite or contribute to an organization that plants trees sufficient funds to plant a minimum of 500 trees in California. Information regarding the area that the trees are to be planted, the organization (if applicable), and the date the trees will be planted shall be provided to the City prior to complete buildout of the Project.

5.2 - The Preserve Final EIR Mitigation Measures

Analyses throughout Section 4 of this Draft EIR reference The Preserve Final EIR Mitigation Measures. The Preserve Final EIR Mitigation Measures are provided in their entirety below.

Aesthetics - The Preserve

No mitigation measures.

Agricultural Resources - The Preserve

AG-1. Agricultural Land Preservation. The City of Chino shall participate in the Williamson Act Easement Exchange Program (WAEPP) and any plan that may be adopted pursuant to SB 831, for acquisition of agricultural easements or other conservation easements for the purpose of permanent agricultural land preservation within the Agricultural (AG), Agricultural/Open Space-Natural, and as appropriate subject to conditional use permit, the Open Space-Natural (OS-N) designated areas of the plan area.

AG-2. Agency Coordination and Planning for Agricultural Uses. The City of Chino shall participate in a coordinated multi-agency planning program for sustainable agricultural uses within the Lower Chino/Prado Basin. This program should involve the principal public landowners within the basin, including but not limited to the U.S. Army Corps of Engineers, Orange County Flood Control District, and County of San Bernardino. Components of this program may include an agricultural feasibility study, acquisitions plan, and management plan for sustainable agricultural uses within the basin.

Also see Biological Resources Measure B-3(Item 4), RMP Urban Buffer/Transition Area.

Air Quality - The Preserve

AQ-1. Mobile Source Emissions/Transit. The City of Chino shall contact appropriate transit agencies to encourage an expansion of transit services up to and within the project area. The City will coordinate with such agencies and other jurisdictions to promote express transit access from the Chino area to other regional employment centers.

AQ-2. Construction Emissions. Per SCAQMD Rule 403, the City shall enforce the following measures:

- During all construction activities, construction contractors shall use low emission mobile construction equipment where feasible to reduce the release of undesirable emissions.
- During all construction activities, construction contractors shall encourage rideshare and transit programs for project construction personnel to reduce automobile emissions.
- During all grading and site disturbance activities, construction contractors shall water active grading sites at least twice a day, and clean construction equipment in the morning and/or evening to reduce particulate emissions and fugitive dust.
- During all construction activities, construction contractors shall, as necessary, wash truck tires leaving the site to reduce the amount of particulate matter transferred to paved streets as required by SCAQMD Rule 403.
- During all construction activities, construction contractors shall sweep on and off site streets if silt is carried over to adjacent public thoroughfares, as determined by the City Engineer to reduce the amount of particulate matter on public streets.
- During all construction activities, construction contractors shall limit traffic speeds on all unpaved road surfaces to 15 miles per hour or less to reduce fugitive dust.
- During grading and all site disturbance activities, at the discretion of the City's Planning Director, construction contractors shall suspend grading operations during first and second stage smog alerts to reduce fugitive dust.
- During grading and all site disturbance activities, at the discretion of the City's Planning Director, construction contractors shall suspend all grading operations when wind speeds (including instantaneous gusts) exceed 25 miles per hour to reduce fugitive dust.
- During all construction activities, the construction contractors shall maintain construction equipment engines by keeping them tuned.
- During all construction activities, the construction contractors shall use low sulfur fuel for stationary construction equipment as required by AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.
- During all construction activities, the construction contractors shall use existing on site electrical power sources to the maximum extent practicable. Where such power is not available, the Contractor shall use clean fuel generators during the early stages of construction to minimize or eliminate the use of portable generators and reduce the release of undesirable emissions.
- During all construction activities, the construction contractors shall use low emission, on site stationary equipment (e.g., clean fuels) to the maximum extent practicable to reduce emissions, as determined by the City Engineer.

- During all construction activities, the construction contractors, in conjunction with the City Engineer, shall locate construction parking to minimize traffic interference on local roads.
- During all construction activities, the construction contractors shall ensure that all trucks hauling dirt, sand, soil or other loose materials are covered or should maintain at least two feet of freeboard (i.e. minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of the California Vehicle Code Section 23114 to reduce spilling of material on area roads.

Biological Resources - The Preserve

B-1. Zoning and Land Use Regulation.

- 1) All areas below the 566-foot dam inundation line, except such areas located north of Pine Avenue, will be retained within an open space or agricultural land use designation in order to provide protection for existing wildlife habitat values found in such areas and those to be created by the habitat enhancement activities described under mitigation B-3, below, as well as to avoid any new impacts.
- 2) Any new development or expansions of existing land uses within the open space designations of The Preserve Specific Plan (i.e., Agriculture, Agriculture/Open Space-Natural, Open Space-Recreation, Open space-Natural and Open Space-Water) shall comply with the requirements and provisions of the Resource Management Plan (see Mitigation No. B-3, below) in order to mitigate potential adverse project-specific impacts on biological resources.

B-2. Required Biological Studies

- 1) Conduct a biological assessment of each specific project site to characterize the habitat types and the potential for the site to support any sensitive species or habitat.
- 2) Where a sensitive species has the potential to occur, determine the level of potential for occurrence as low, moderate, or high. Provide scientific justification for this determination.
- 3) If the potential for occurrence is moderate or high (e.g., the required habitat elements for this species are present and/or there has been a sighting of this species in the vicinity of the project site), conduct focused surveys within suitable habitat to determine the presence or absence of the species on the project site.
- 4) Any surveys deemed necessary must be conducted by a biologist qualified to perform the needed survey(s). The City of Chino, or its consultant, will review and approve the personnel and methodology for any such proposed surveys.
- 5) If a sensitive species or habitat is found to occur on a proposed project site, or occupies habitat that may be impacted directly or indirectly by the proposed project, this must be

- called to the City's immediate attention and documented in the biological assessment for the project.
- 6) Mitigation measures to offset any potential impact to sensitive species and habitats must comply with the RMP and shall be included in the biological assessment. All lands set aside for conservation and/or other mitigation measures must be clearly documented in the final biological assessment.

B-3. Resources Management Plan

A Resources Management Plan (RMP) shall be prepared by the City of Chino to provide for the implementation of the mitigation measures described below, in order to avoid, lessen and reduce impacts on the biological resources within the Preserve Specific Plan Area. The Resources Management Plan will be approved by the Chino City Council at the time of certification of the Final EIR. The RMP will formalize the City's balanced approach to land use and resource management, and provides the framework for coordinating the City's actions with other agencies, such as County of San Bernardino, CDFG, USFWS, USACE, OCFWD, and OCWD with regard to specific conservation measures and resource management initiatives within The Preserve. The RMP will focus on the development and implementation of wildlife habitat enhancement and restoration activities, primarily funded by a mitigation fee imposed on all urban development within the Project Area. The RMP will specifically address the following mitigation measures:

- 1) 300-acre Conservation Area. Provision will be made for the creation, enhancement, expansion and perpetuation of high quality wildlife habitat in a 300-acre Conservation Area to be located generally below the 566-foot inundation line and within the boundaries of the project area. The more specific location of the conservation area will be determined through the preparation of the RMP and will depend on availability of such lands for mitigation purposes, and the suitability of land for the enhancements envisioned. Such habitat will be designed to address the impacts that will occur as the result of development of The Preserve (i.e., raptor, waterfowl and burrowing owl habitat). Key enhancements that will be provided comprise the following:
 - a.) A weed removal program and replanting of native vegetation within the 300-acre Conservation Area shall be implemented to create high quality raptor and burrowing owl foraging habitat.
 - b.) Installation and maintenance of twenty (20) artificial burrowing owl nesting sites to mitigate for the loss of burrowing owl habitat. An illustrative example of an artificial burrow is provided in Exhibit 5.4.4). Nesting sites will be located and designed to facilitate use by burrowing owls.
 - c.) Stands of trees shall be planted at a minimum of five (5) locations within the 300-acre Conservation Area to mitigate for the loss of raptor nesting/foraging habitat. Specifics regarding enhancements (i.e., location of tree stands, placement of artificial

owl burrows, plant and tree species, long-term maintenance and management, etc.) will be detailed in the RMP.

- d.) The City shall obtain agreements with the landowners in the 300-acre Conservation Area in the form of an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument to install and maintain the above habitat enhancements and to provide the City with a perpetual right to control uses which would conflict with the land's use as wildlife habitat.
- 2) Alternate Location for the 300-acre Conservation Area. If the City is unable, or it is infeasible, to obtain the onsite mitigation agreements from property owners for all or a portion of the 300-acre conservation area, the City may acquire and enhance, or make other arrangements securing the right to permanently protect/preserve and enhance, land off-site within the Prado Basin (including Chino Hills). Such land must have similar biological value to land on-site within the areas planned for urban development (generally above the 566-foot elevation line). In addition, provisions shall be made to provide enhancements/restoration similar to the measure described in Section B-3(1), above.

[Note: A Memorandum of Understanding (MOU) on environmental mitigation for The Preserve project has been executed between the City of Chino and Lewis which implements this provision of the RMP. A copy of the MOU is included in Appendix C of this Draft MND.]

3) Burrowing Owls

- a.) If burrowing owls are found on an individual development site, development, including the expansion of existing land uses or other land use activities that could disrupt the owls, will be required to follow the CDFG burrowing owl relocation protocols, including the creation of artificial burrows (Exhibit 5.4.4). Key components of this protocol presently include:
 - i. Occupied burrows should not be disturbed during the nesting season, from February 1 through August 31.
 - ii. If owls must be moved away from the disturbance area, passive relocation is preferable to trapping.
 - iii. A time period of at least one week is recommended to allow owls to move and acclimate to the alternate burrows.
 - iv. Passive relocation involves encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are at least 50 meters from the impact zone with a minimum of 6.5 acres of suitable foraging habitat for each pair of relocated owls (see Exhibit 5.4.4).
 - v. Owls should be excluded from burrows in the immediate impact zone and within a 50 meter buffer zone by installing one-way doors in burrow entrances.
 - vi. One-way door should be left in place for at least 48 hours to insure that owls have left the burrow before excavating the burrow.

- vii. One alternate burrow (natural or artificial) should be provided for each burrow that will be excavating in the project impact zone.
 - viii. The project areas should be monitored daily for at least one week to confirm no owl use before excavating burrows in the immediate impact zone.
 - ix. When excavating burrows, hand tools should be used and the burrows should be refilled to prevent reoccupation.
 - x. Sections of flexible plastic pipe or burlap bags should be inserted into the tunnels during excavation to maintain an escape route for any animals that may still be located inside the burrow.
- b.) In order to provide supplemental mitigation beyond the standard CDFG protocol requirements for relocation of owls, the 300 acre Conservation Area will be made available for the relocation of burrowing owls that would be displaced by development, including the creation of 20 artificial burrows. The feasibility of relocating owls from development sites to the conservation area will be reviewed on a case-by-case basis for individual development projects, subject to the evaluation and recommendations of the biological study prepared for a given site.
- 4) Urban Buffer/Transition Area. In order to limit urban intrusion into areas with habitat value that are below the 566-foot dam inundation line, a buffer area will be provided along the southern edge of urban development within the Preserve Specific Plan project area. The buffer will be designed to provide for limited access to habitat areas and will include provisions for the logical transition between urban structures/uses and habitat areas. Such provisions may address without limit measures regarding: location and type of land uses, lighting, vegetation and tree plantings. Specific features regarding the design, conceptual location, buffer width and/or setback requirements, timing and other features of the buffer shall be included as part of the Resources Management Plan.
- While every reasonable effort will be made to seek such a buffer, this mitigation measure does not require land acquisition or obtaining any agreements with landowners in the form of an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument for the purposes of providing the buffer, or for purposes of providing any of enhancements or features described under Mitigation Measure B-3(1).
- 5) Surface Water and Riparian Habitat.
- a.) All development will be required to satisfy any applicable requirements of USACE, Regional Water Quality Control Board and CDFG for Section 404 Clean Water Act permits and streambed alteration agreements.
 - b.) Drainage Area B (see, Exhibit 5.4.5) will be designed as a naturalized drainage course and enhanced to provide riparian habitat values, including plantings of appropriate native species of plants and trees. It is anticipated that these enhancements will be provided in conjunction with drainage facilities and constructed “Natural Treatment Systems” (NTS) designed to improve water quality. Exhibit 5.4.6 provides an illustrative example of how the drainage area may be

designed. Specific features related to habitat values will be addressed as part of the RMP.

- c.) A minimum of 10 acres of marsh and or riparian habitats shall be constructed in conjunction with drainage facilities and/or Natural Treatment Systems for water quality purposes, in order to provide mitigation for loss of the low-quality habitat values of the agricultural detention basins, as well as other surface water areas that support waterfowl.
- 6) Existing Windrows. Existing windrows that provide viable raptor habitat shall be retained and incorporated into the design of individual development projects where practical. If retention is not practical, the developer shall provide for the replacement of the windrow trees in a manner supportive of raptor habitat. The biological study prepared for the development project shall include an analysis by an ornithologist specializing in raptor biology. Such analysis shall include recommendations on the number of trees, tree specifications and location of replacement areas for windrows or stands of trees. The recommendations shall be based on biological values, as determined by the ornithologist, and in consultation with the City and the wildlife agencies. Replacement trees may be located within the 300-acre conservation area or other suitable areas located outside of the project site if consistent with the recommendations of the ornithologist.
- 7) Agricultural Easements. Under Mitigation Measure AG-1 (see Section 5.2 in the Draft EIR), which addresses mitigation for loss of prime agricultural land, the City has committed to actively pursuing SB 831 Williamson Act cancellation fees to acquire agricultural easements within the Preserve. These easements will also provide mitigation for identified impacts on biological resources in that they will preserve areas in agriculture and prevent the future development of recreational or other non-agricultural uses that could be detrimental to biological resources.
- 8) Mitigation Fee. A mitigation fee shall be imposed on new development for the purpose of implementing the Biological Resource mitigation measures as described in the Resources Management Plan. The fee shall be adopted by the City Council prior to the issuance of grading permits for new residential, commercial, office, industrial development, or public facilities; provided grading permits may be issued prior to final adoption of the fee upon developer's deposit with the City of adequate cash or other form of security in excess of the proposed fee, as approved by the City Council for the City. The fee shall be structured to cover the estimated cost of the identified mitigation measures, including:
 - a.) Costs associated with obtaining agreements for the 300-acre conservation area with landowners in the form of conservation easements or other legally enforceable instruments as described under mitigation measures B-3-1 and B-3-2, above;
 - b.) Costs associated with the design, installation, and maintenance of the various enhancements and improvements described above, including such appropriate refinements/adjustments as may be identified by the RMP.

- c.) Administration, management and monitoring of the 300-acre conservation area and other mitigation measures as appropriate, including adaptive management.
Costs that form the basis for the mitigation fee may, at the discretion of the City, be defrayed through the use of grants or other government or private funding sources as such sources become available in the future.
Costs for wetlands/riparian enhancements shall be structured in conjunction with costs for such improvements that also serve water quality and drainage purposes, which may be funded by project drainage and/or water quality fees.
- 9) Participation in Regional Efforts. The City has had ongoing involvement with various regional conservation-related efforts. The City will continue to be involved in and coordinate with such efforts within The Preserve. These efforts include, without limitation:
 - a.) USACE and Orange County Water District's Prado Basin Master Plan;
 - b.) IEUA's Chino Creek Habitat Restoration Program;
 - c.) Orange County Water District's Santa Ana River Watershed program;
 - d.) USACE's Santa Ana River Mainstem Project;
 - e.) Lower Chino Basin Working Group (Santa Ana River Working Group MOU) Resources Management Planning;
 - f.) Chino Basin Center for Organic Materials (Santa Ana River Working Group MOU); Wildlife, Wetlands and Recreation Resource Conservation Program (Santa Ana River Working Group MOU);
 - g.) Urban Transition Planning Smart Growth Program (Santa Ana River Working Group MOU);
 - h.) Conjunctive Groundwater Management, Replenishment and Conservation Program (Santa Ana River Working Group MOU).
 - i.) Chino Hills State Park General Plan (February 1999).
- 10) Administration and Monitoring. The City shall use a conservancy or land trust, or other similar, qualified entity to oversee and implement the Resources Management Plan and principally manage the 300-acre conservation area. Such an entity shall have expertise in the management of land and biological resources. The chosen entity may also jointly provide a similar function to adjacent jurisdictions, provided that effective implementation of the mitigation measures described herein can be achieved. The City Council shall use its best efforts to select and enter in to necessary agreements with the chosen entity prior to acquisition of any property through an irrevocable license, conservation easement, right of entry, or other legally enforceable instrument.

Cultural Resources - The Preserve

CR-1. Survey and Mitigation Report. Phase 1 field surveys (surface survey and collection) by a certified archaeologist should be conducted prior to all earth disturbing activities within the plan area. Existing natural open space, agricultural open space and dairy sites are included in this survey requirement. Excluded would be heavily disturbed areas, lagoons and detention ponds, and paved

areas. The archaeologist will identify all prehistoric and historic resources observed during the field survey, complete a preliminary evaluation of the resources, and recommend appropriate measures for the disposition and treatment of significant resources. A technical report shall be prepared including discussion of cultural site significance (depth, nature, condition, and extent of the resources), final mitigation recommendations, and cost estimates. Excavated finds shall be offered to the City of Chino, or its designee on a first refusal basis. Final mitigation shall be carried out based upon the report recommendations and a determination as to site disposition by the City. Possible determinations include, but are not limited to, preservation, salvage, partial salvage, or no mitigation necessary.

CR-2. Archaeological Monitoring. Where recommended in culturally-sensitive areas pursuant to Survey and Mitigation Reports (CR-1 above), archeological monitoring of earth-disturbing activities shall be conducted. The monitoring certified archaeologist will identify any prehistoric or historic resources exposed, complete a preliminary evaluation of the resource, and recommend appropriate resource management for the treatment of the resource. If additional or unexpected archaeological features are discovered, the archaeologist shall report such findings to the City. If the resources are found to be significant, the archaeologist shall determine, in consultation with the City, appropriate actions for further exploration and/or salvage recovery.

CR-3. Paleontological Monitoring. Monitoring for fossil material should be conducted by a qualified paleontologist during construction grading activities within older alluvium (Pleistocene), in order to avoid any disturbances to possible unknown or unidentified paleontological resources.

Geology and Soils - The Preserve

GS-1. All applications for individual development projects shall include a detailed Geotechnical and Soils Engineering Study which addresses potential hazards associated with fault rupture, seismicity and groundshaking, liquefaction, subsidence and near-surface groundwater. Such studies shall:

- Conform to code requirements, and standards and guidelines established by the City of Chino;
- Fully and accurately reflect site conditions regarding the possible hazards identified herein; and
- Include all mitigation measures necessary for reducing risks posed by geologic hazards on the project site.

GS-2. All individual developments shall be constructed according to requirements established in geologic studies pertaining to the project site, and general engineering practices established by the City of Chino.

GS-3. Grading operations on all former dairy lands and other agricultural properties will be conducted in accordance with the soils report prepared by a registered soils engineer approved by the City of Chino. The soils engineer will make recommendations concerning removal of any organic

material or the proper handling of such material during grading. All manure from dairy corrals and other surface areas shall be stripped and removed prior to grading operations, in accordance with applicable codes and regulations. The potential for methane in remaining soils shall be specifically addressed in soils reports on all former dairy lands and other agricultural properties. Where the potential for methane accumulation or release is identified, soils testing shall occur with results and remedial measures identified in the soils report.

Hazards and Hazardous Materials - The Preserve

HM-1. To minimize aircraft/wildlife hazards, sizeable water features that might attract waterfowl should be prohibited in the plan area east of the Airport.

HM-2. The maximum building heights outside of the runway protection zones may not exceed 160 feet to prevent any conflict with adopted flight patterns.

HM-3. Prior to City consideration of any specific development projects within the plan area, developers will be required by the City to submit a completed Phase 1 Environmental Site Assessment (ESAs), which at a minimum, meets with the requirements of the most current standards of investigation established by the American Society of Testing and Materials (ASTM Standard E 1527). The recommendations of such ESAs, including testing and soil remediation, if necessary, shall be adhered to reduce any identified hazards to acceptable levels.

HM-4. Prior to issuance of permits by the City of Chino for major renovation or demolition of any pre-1979 structure within the project area, the project developer will be required to submit documentation to the City Building Department that asbestos and lead-based paint issues are not applicable to their property, or that appropriate actions will be taken to correct any asbestos or lead-based paint issues prior to development of the site.

HM-5. In order to minimize risks to life and property, projects within the plan area will be required to demonstrate compliance with all applicable federal, state and local laws and regulations governing the handling, transport, treatment, generation and storage of hazardous materials.

Hydrology and Water Quality - The Preserve

HWQ-1. All development shall comply with the National Pollutant Discharge Elimination System (NPDES) regulations. Prior to the issuance of a grading permit, applicants shall demonstrate compliance with NPDES Stormwater Permit requirements to the satisfaction of the City of Chino. Applicable BMP provisions shall be incorporated into the NPDES Permit.

HWQ-2. Individual projects within the specific plan area shall be reviewed by the City of Chino for the inclusion of appropriate structural and non-structural Best Management Practices (BMPs) to control stormwater discharges and protect water quality. Structural controls may include, but are not limited to filtration, common area efficient irrigation, common area runoff-minimizing landscape design, velocity dissipation devices, oil/grease separators, inlet trash racks, and catch basin stenciling.

Non-structural BMPs can include education for property owners, tenants and occupants, activity restrictions, common area landscape management, litter control, and catch basin inspection, BMP maintenance; and street sweeping.

The following are examples of BMPs that may be included within NPDES permit requirements for individual projects:

- Use of sand bags and temporary desilting basins during project grading and construction during the rainy season (October through April) to prevent discharge of sediment-laden runoff into stormwater facilities.
- Installation of landscaping as soon as practicable after completion of grading to reduce sediment transport during storms.
- Hydroseeding, soil binders or other measures to retain soil on graded building pads if they are not built upon before the onset of the rainy season.
- Incorporation of structural BMPs (e.g., grease traps, debris screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the project design to provide detention and filtering of contaminants in urban runoff from the developed site prior to discharge to stormwater facilities.
- Stenciling of catch basins and other publicly visible flood control facilities with the phrase “No Dumping-Drains to the Ocean.”

HWQ-3. The City shall review subsequent development projects within the specific plan area for the application of Best Management Practices (BMPs) to reduce water pollution from urban runoff. Among the source-reduction BMPs that may be required by the City for application to such projects are the following:

- Animal waste reduction
- Exposure reduction
- Recycling/waste disposal
- Parking lot and street cleaning
- Infiltration (exfiltration) devices
- Oil and grease traps
- Sand traps
- Filter strips
- Regular/routine maintenance

The specific measures to be applied shall be determined in conjunction with review of required project hydrology and hydraulic studies, and shall conform to City standards and the standards of the County’s Municipal Stormwater Permit, under the NPDES program.

HWQ-4. A water quality monitoring program should be implemented to regularly test the water quality at the project storm drainage outlets to Prado Lake, Chino Creek and Mill Creek. The program should be devised to differentiate the pollutant contributions of project development from dairies during the transitional period. If test results determine that the water quality standards established by the RWQCB are not being met, corrective actions acceptable to the RWQCB would be taken to improve the quality of surface runoff discharged from the outlets to a level in compliance with the adopted RWQCB standards.

HWQ-5. In implementing the Storm Drainage Plan the City should review subsequent development projects within the plan area for opportunities to provide ‘mini-basins’ for purposes of detention, filtration and recharge to groundwater. Such basins may have the corollary benefit of providing habitat for waterfowl. Appropriate locations may include storm drain outlets to earthen channels, within or adjacent earthen channels, and at storm drain outlets to the natural open space system.

HWQ-6. The City of Chino shall assure that storm drain facilities and outlets to Prado Regional Park and the natural open space system are designed in a manner that minimizes disruption of park operations and protects park and open space resources. Specific drainage facility designs at outlets to the major open space system below the 566’ elevation shall be made available for review by the County of San Bernardino Flood Control District and U.S. Army Corps of Engineers, as appropriate.

HWQ-7. Prior to any development approvals, a plan for managing urban runoff to protect sensitive drainages within the open space system shall be approved by the City of Chino. This Urban Runoff Management Plan (URMP) will be integrated with the project Storm Drain Plan, and provide the framework and mechanism for:

- 1) Phased implementation of structural and non-structural best management practices (BMP’s) to control stormwater discharges and protect water quality;
- 2) Review of subsequent projects for inclusion of ‘mini-basins’ for detention, filtration and recharge to groundwater;
- 3) The design and location of Natural Treatment Systems (NTS) for water quality purposes within drainages; and
- 4) Implementation of a water quality monitoring program at storm drain outlets to Prado Lake, Chino Creek and Mill Creek.

The URMP shall be made available for review and comment by the Flood Control Districts of the counties of San Bernardino and Orange, the U.S. Army Corps of Engineers, and Orange County Water District during the City of Chino’s review and approval process. The URMP shall assure to the satisfaction of the City of Chino that project development that drains into Chino Creek and Mill Creek will not unacceptably contribute to flooding, scour and erosion, or water quality degradation of these environmentally sensitive drainages.

See measure HWQ-7.

Noise - The Preserve

N-1. Construction Noise. The following construction noise reduction measures will be implemented:

All construction activities conducted within 500 feet of any occupied dwelling shall not occur from 7 P.M. to 7 A.M. the following day, and at any time on Sundays or universally observed holidays.

- All construction equipment will use properly operating mufflers.
- All staging areas shall be located away from occupied dwellings and schools where feasible.
- The City of Chino will approve construction truck access routes that minimize noise intrusion into sensitive areas, such as neighborhoods, schools, and parks.

N-2. Roadway Noise. Developers/builders shall submit acoustical studies to the City of Chino for subsequent tentative maps and noise-sensitive uses (e.g. residences, schools, medical facilities) adjacent the principal area roadways. Such studies shall assure that:

- Usable exterior space meets noise standards of 65 dB CNEL through a combination of setback or barriers.
- Habitable interior rooms along any project perimeter near noise-impacted roadways meet the interior standard of 45 dB CNEL through dual-paned windows, central air conditioning and other structural upgrades.

N-3. Airport Noise. In order to ensure that noise exposure is considered in review of subsequent development projects within the plan area, and in acknowledgement of possible single-event aircraft audibility even if standards are not exceeded, the following measures will be implemented:

- The City of Chino shall provide notice of development applications within adopted airport noise and safety zones to the Airport Land Use Commission (ALUC), in compliance with the Airport Comprehensive Land Use Plan (ACLUP). The City will coordinate with the ALUC to assure the compatibility of specific development projects with Chino Airport Operations (same as Mitigation Measure LU-1).
- All real estate transactions within Subarea 2 within 1.0 mile of the airport boundary will contain advisory language that aircraft may be periodically audible even though the subject property is exposed to noise levels due to aviation activities that are well within State guidelines.

Land Use and Planning - The Preserve

LU-1. Chino Airport Influence Area. The City of Chino shall provide notice of development applications within adopted airport noise and safety zones to the Airport Land Use Commission (ALUC), in compliance with the Chino Airport Comprehensive Land Use Plan (ACLUP). The City will coordinate with the ALUC to assure specific development projects' compatibility with Chino Airport operations.

LU-2. Correctional Institution for Women (CIW-Chino). Special attention should be focused during subsequent review of specific development projects on providing an adequate buffer and separation between the existing CIW-Chino and planned residential uses immediately to the east. The planned linear Community Paseo along Chino-Corona Road separating these uses should include some combination of landscape screening, berms and/or walls, and setbacks to achieve an adequate physical and visual separation between these uses.

Public Services - The Preserve

PS-S-1. Developers/builders within the plan area shall work with the CVUSD to plan school service for the proposed development.

PS-S-2. Prior to issuance of a building permit, project developers shall pay statutory developer fees to the CVUSD, form a Communities Facilities District, or provide land and improvements pursuant to the requirements established in SB 50. The amount of fees or special taxes to be paid or land and improvements to be provided will be determined based on the established state formula for determining construction costs.

PS-S-3. To reduce potential safety hazards during construction, the City shall require developer notification to Chino Valley Unified School District of pending construction activity adjacent or near operating schools. Evidence of notification shall be provided to the City prior to issuance of grading and building permits for projects within any Master Plan, Tentative Map or Site Plan inclusive of, or immediately adjacent to, an operating school site.

PS-P-1. Police impact fees shall be paid to cover capital costs associated with the creation of additional facilities and improvements to service The Preserve area. The City of Chino may allow credit toward impact fees for any police facilities constructed by the developer.

PS-F-1. Developer impact fees shall be paid to contribute to the cost of new fire facilities, apparatus, and equipment to offset the increase in fire services demand created by the project.

PS-F-2. The City of Chino shall coordinate with the Fire District to assure construction of a new fire station site to serve the proposed project. The fire station shall be constructed and ready for Fire District occupancy prior to the issuance of the 1,350th building permit for the proposed project. The station location may either be within the project site or at Chino Airport, subject to agreement by San

Bernardino County Department of Airports. The station shall be adequately attenuated from noise effects of airport operations.

PS-F-3. Prior to construction, the developer shall contact the Fire District for verification of current fire protection development requirements. All new construction shall comply with all applicable statutes, codes, ordinances, and/or Fire District standards.

PS-F-4. Water lines within the project site shall be designed to meet the fire requirements.

PS-F-5. Fire hydrants shall be designed and placement specified by the Fire District at the time water lines to the project area are built or as a condition of development project approval.

PS-F-6. Upon annexation of the plan area, the City will be responsible for payment of services to the State Department of Forestry & Fire Protection in conformance with rules and standards for wild land fire areas still receiving State protection.

PS-L-1. The proposed project should address the need for additional library facilities and library services, and provide space or funding for library construction. The construction of a joint use library shared by the County of San Bernardino and Chino Valley Unified School District may be an appropriate option.

PS-L-2. Project developers should contribute impact fees either toward expansion of existing library facilities or construction of new facilities, if such fees or requirements are adopted for general application by the County.

PS-PR-1. As Per the City of Chino, every residential developer or person who develops land for residential purposes shall dedicate a portion of such land, pay a fee, or a combination of both at the option of the city for the purpose of providing park and recreational facilities at the time and according to City standards outlined in Chapter 18.04, "Land Dedication Requirements Generally."

PS-PR-2. The City of Chino will coordinate with San Bernardino County to assure that traffic, access control and safety needs of Prado Regional Park are met, and that the impacts of implementation of the proposed project on Prado Regional Park facilities are minimized to the extent practical. A Traffic and Access Control plan may be a component of this collaboration. The City will also assure through subsequent development reviews, that project-related drainage does not adversely affect the park and Prado Lake.

Transportation and Traffic - The Preserve

T-1. Notification: Since the project contributes significant traffic to a State Highway (I-15 Freeway, SR-71 Freeway, SR-60 Freeway, and SR-91 Freeway), and it also contributes significant traffic to roadway segments serving CMP intersections within the jurisdictions of the City of Chino Hills, City of Ontario, County of San Bernardino, City of Norco, City of Corona, and the County of Riverside,

the City of Chino shall notify the Congestion Management Agency (SANBAG), the California Department of Transportation (Caltrans), the City of Chino Hills, City of Ontario, County of San Bernardino, City of Norco, City of Corona, and the County of Riverside in accordance with CMP requirements. Each of these agencies must be provided with a copy of the CMP traffic study, once the document is accepted by the City of Chino.

T-2. The proposed project shall construct or otherwise provide for all internal roadway improvements. The provision of such improvements shall be phased to address the incremental impacts of individual development projects.

T-3. The City of Chino shall work cooperatively through SCAG and SANBAG to develop regional/subregional projects and identify regional transportation funding needed to minimize future freeway deficiencies. The City will actively participate in other future regional and/or subregional efforts to reduce freeway congestion.

T-4. The City of Chino shall participate in planning efforts to develop subregional and/or regional transportation facilities based on equitable cost sharing programs among cities and counties.

T-5. The City of Chino shall provide traffic operations and traffic systems management (TSM) improvements, including signal system coordination, automated traffic control, Smart Corridors, intelligent transportation systems, and other measures.

T-6. Individual development projects shall be reviewed by the City for integration of trip reduction measures, travel demand management (TDM) strategies and alternative transportation modes, consistent with the Specific Plan.

T-7. In the initial phases of development, the City of Chino shall require that a Transit Feasibility Study be prepared of the proposed project transit system. The feasibility study should address the timing of transit development vis-a-vis development phasing, and the interface with future regional transit works. To respond to potential issues related to the development of such a system, the following actions must be undertaken:

- Identify the various funding mechanisms associated with the construction and operation of the system.
- Require each proposed project to provide adequate right of way for such a system and construct the required infrastructure.
- Establish design criteria and an evaluation process for determining transit stop locations that ensure pedestrian access prior to tentative map approval.
- Operational issues, such as the future management of the system, may be deferred until the appropriate time, based upon discussions with current regional transit providers.

T-8. The City of Chino shall contact appropriate transit agencies to encourage an expansion of transit services up to and within the project area.

T-9. Traffic studies shall be required as deemed necessary by the City Engineer. Each study will identify the timing, and extent of required improvements to adequately evaluate future traffic impacts of individual projects needed to mitigate the impacts of such development.

Utilities - The Preserve

U-W-1. Consistent with SB 221, subsequent development projects within the plan area shall be reviewed by the City to confirm the availability of sufficient water supplies to meet project water needs.

U-W-2. Consistent with requirements of AB 2838, the City shall periodically review and update its urban water management plan to ensure that adequate water supplies and facilities are available to meet future growth.

U-W-3. Subsequent development projects should be designed to incorporate features that encourage and promote groundwater replenishment.

U-W-4. Retention of precipitation and runoff on-site should be encouraged in development designs where appropriate.

U-W-5. The City shall continue to support efforts to develop the water supply and to encourage water conservation. Water conservation techniques appropriate for new and existing development include:

- Installing flow restrictors in showers.
- Repairing leaky water fixtures.
- Promoting drought resistant low maintenance vegetation.

U-W-6. The City shall coordinate its efforts with the IEUA to expand the re-use of wastewater for such uses as the irrigation of parkways, golf courses, landscaped areas, and parks, and, if feasible, for industrial processes.

U-W-7. The City shall engage in water conservation programs and activities, including but not limited to, participation in the following water conservation practices:

- Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers
- Residential Plumbing Retrofits

- System Water Audits, Leak Detectors and Repair
- Large Landscape Conservation Programs and Incentives
- High Efficiency Washing Machine Programs
- Public Information and School Education Programs
- Conservation Programs for Commercial, Industrial and Institutional Accounts
- Wholesale Agency Technical Assistance Program
- Conservation Pricing

U-W-8. Where erosion or water runoff is not a problem, encourage use of on-site water recharge, such as dry wells.

U-WW-1. The City shall assure that required backbone sewer lines, or an equivalent system recommended by the City Engineer are implemented pursuant to the Sewer Master Plan.

U-WW-2. Developers shall pay required sewage facilities development fees and system collection fees to cover City costs to construct master planned sewer mains.

U-E-1. Energy efficient lighting and natural lighting should be encouraged and utilized where practical.

U-SW-1. Future developments should be reviewed by the City for the provision of outside building space to accommodate the storage of large waste containers (e.g. 3 containers of 96-gallons). This system reduces waste production by encouraging recycling of material.

SECTION 6: ALTERNATIVES TO THE PROPOSED PROJECT

6.1 - Introduction

In accordance with CEQA Guidelines § 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the proposed Project. The primary purpose of this section is to provide decision makers and the general public with a reasonable degree of feasible Project alternatives that could attain most of the basic Project objectives, while avoiding or reducing any of the Project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines § 15126.6):

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
 - Failure to meet most of the basic project objectives;
 - Infeasibility; or
 - Inability to avoid significant environmental effects

At the project-level, this EIR has identified the following significant unavoidable impacts of the proposed Project:

- **Aesthetics** (Existing Visual Character)
- **Agricultural Resources** (Convert Farmland to Non-Agricultural Uses - Direct and Indirect; Conflict with Existing Zoning)
- **Air Quality** (Construction Related Impacts; Operation Related Impacts; Air Quality Plan; Air Quality Standards/Violations; Sensitive Receptors; Odors)
- **Biological Resources** (Local Policies or Ordinances Protecting Biological Resources; Conservation Plans)
- **Land Use and Planning** (Conflict with Applicable Land Use Plans, Policies, or Regulations; Conflict with Conservation Plans)
- **Recreation** (Recreational Facilities)

Impacts for the following have also been found to be cumulatively considerable:

- **Aesthetics** (Existing Visual Character)
- **Agricultural Resources** (Convert Farmland to Non-Agricultural Uses)

- **Air Quality** (Criteria Pollutants; Cumulative Air Quality)
- **Biological Resources** (Raptor Foraging Habitat)
- **Land Use and Planning** (Open Space and Agricultural Lands)
- **Recreation** (Recreational Facilities)
- **Transportation and Traffic** (Exceedance of County Congestion Management Agency Level of Service Standard for designated roads or highways)

As stated in Section 3.3, Project Objectives of this Draft EIR, the objectives of the proposed Edgewater Communities Project are to:

- Implement land uses in the Edgewater Project site so that new land uses complement the existing and planned uses within The Preserve Specific Plan area.
- Design a development plan for the Edgewater Project site that integrates with The Preserve Specific Plan in terms of Development Regulations, Traffic & Circulation, Open Space System, Infrastructure, and Landscaping.
- Provide an open-space and lake-oriented community on the Project site that is designed to complement the natural, gently rolling terrain and view characteristics of the site, both within the site toward Project aesthetic features, and of distant mountain views.
- Design a development plan for the Project site that protects existing quality habitat and rehabilitates degraded habitat for plants and wildlife.
- Provide higher density residential uses within close proximity to The Preserve Community Core and to the recreational and open space amenities within the Edgewater Project to promote pedestrian connection to the amenities within the Edgewater Project and Community Core.
- Encourage walkable linkages and connectivity of the Edgewater site through land use siting, and open space and trails, resulting in enhanced access to support services and a higher level of community interaction.
- Plan and develop the Edgewater Project as a cohesive community within The Preserve with a unifying architectural and landscape design theme, utilizing variety in the design of structures within this context.
- Provide a well-planned development that generates revenue in balance with the cost of providing services.
- Provide a mix of high quality, low-, medium-, and high-density residential neighborhoods that have access to the open space and water features of the development and are complemented by private recreational facilities, church/school, and museum/retail uses, but with an emphasis on low-density single-family, large-lot homes.

- Provide a variety of lot configurations for both attached and detached homes, including, but not limited to: zero lot line, “z” lots, and detached condominiums.
- In areas of varied topography, promote site planning techniques that accommodate the natural terrain of the site (versus a grid-like development).

The City has included for evaluation the following five alternatives:

- No Project/No Development
- No Project/Development in accordance with Existing General Plan Designations;
- Agricultural Preservation Through Reduced Development Footprint;
- Biological Restoration; and
- View/Lake.

The following is a qualitative analysis of the five alternatives to the proposed Project. This qualitative analysis is intended to provide a relative comparison between the proposed Project and each individual Project alternative. In several cases, the description of the impact may be the same under each scenario when compared to the CEQA Thresholds of Significance (i.e., both scenarios would result in a “less than significant” impact). However, the actual degree of impact may be slightly different under each scenario, and this relative difference is the basis for a conclusion of greater or lesser impacts. This is merely a qualitative comparison of two scenarios and does not change the significance of the proposed Project’s impacts.

6.2 - No Project/No Development Alternative (Alternative 1)

The discussion and evaluation of a No Project Alternative is required by the CEQA Guidelines. Under the No Project/No Development Alternative (Alternative 1), the active dairy operation operating onsite with 600-800 cows would continue, with an expansion in animals of 15% permitted by City regulations (or a maximum of 920 cows). Existing conditions associated with current and past uses (manure and manure stockpiles, ponds filled with liquid wastewater from onsite and adjacent dairy operations, soils within the open fields impacted by years of placement of solid dairy waste) would remain in place. Wastewater and storm water runoff from the four adjacent dairies would continue to be accepted. No infrastructure improvements would be made to the Project site, including to storm drainage and wastewater systems. The four rural residences (three currently occupied, one unoccupied) associated with continued agricultural use would remain.

6.2.1 - Impact Analysis

Discussion of impacts under the No Project/No Development Alternative for the issue areas expected to experience significant and unavoidable impacts from implementation of the proposed Project is as follows.

Aesthetics

Changes to the aesthetic quality or visual character of the site would not occur under the No Project/No Development Alternative. Active dairy operations would continue. No new sources of light and glare would be introduced. The alteration of existing visual character of the Project site anticipated through conversion of open land to urban uses under the proposed Project would not occur. The proposed Project's significant aesthetics impact would be avoided; therefore, impacts to aesthetics under the No Project/No Development Alternative would be less than the proposed Project.

Agricultural Resources

This alternative represents limited change with respect to agricultural resources, whereas the proposed Project would result in significant impacts to agricultural resources stemming from the conversion of 150.3 acres of Prime Farmland and 20.1 acres of Unique Farmland (totaling 170.4 acres) to non-agricultural uses. In order for Project site soils to be suitable to support crops for human consumption; however, onsite soils would need to be remediated to reduce the percentage of dairy waste within the soils. The proposed Project's significant and unavoidable agricultural resources impacts would nevertheless be avoided. Impacts to agricultural resources under the No Project/No Development Alternative would be less than the proposed Project.

Air Quality

No construction- or operation-related emissions would occur under the No Project/No Development Alternative. Without construction and operation of the proposed Project, there would be no exceedance of SCAQMD significance thresholds during the construction and/or operation phases, no conflict with the applicable Air Quality Management Plan, and no cumulatively considerable air quality impacts. Impacts to air quality under the No Project/No Development Alternative are considered to be less than under the proposed Project.

Biological Resources

This alternative would not: 1) adversely affect Project site biological resources; 2) conflict with local policies, ordinances, and/or Conservation Plans protecting biological resources; and/or 3) contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. At the same time, selection of this alternative would not result in any of the beneficial aspects of the proposed Project: permanent preservation of 22.9 acres of riparian habitat within open space areas; 29.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of suitable LBV habitat. Overall, however, it can be concluded that impacts to biological resources under the No Project/No Development Alternative are considered to be less than under the proposed Project.

Land Use and Planning

This alternative would not conflict with applicable land use plans. Continuation of existing dairy operations on the Project site with a maximum of 920 cows is allowed as a non-conforming use under City regulations. This alternative would not conflict with The Preserve Resource Management Plan and Final EIR mitigation measures limiting urban uses to properties above the 566' elevation. This

alternative would not result in a significant and irretrievable cumulative loss of open space and agricultural lands. Impacts to land use and planning under the No Project/No Development Alternative are considered to be less than under the proposed Project.

Recreation

This alternative would not increase the use of existing neighborhood and regional parks or other recreational facilities, nor would it contribute to a significant adverse cumulative impact on recreational facilities. No additional housing would be established; hence, recreational needs associated with the Project site would not increase. Impacts to recreation under the No Project/No Development Alternative are considered to be less than under the proposed Project.

Transportation and Traffic

Increased traffic generation associated with proposed Project implementation would be avoided under this alternative. Transportation and traffic impacts under the No Project/No Development Alternative are considered to be less than under the proposed Project.

Other Impacts

Other impacts that were found to be less than significant for the proposed Project would be further reduced or avoided altogether with the implementation of the No Project/No Development Alternative:

- Cultural Resources - avoidance of any impacts to archaeological and paleontological resources;
- Geology and Soils - avoidance of potential for impacts related to seismicity and unstable soils;
- Hazards and Hazardous Materials - avoidance of broader use of household and landscape hazardous materials, but no clean-up of liquid and solid dairy waste would occur.
- Hydrology and Water Quality - avoidance of potential for impacts to hydrology and water quality associated with urbanization (including avoidance of impacts associated with the quantity of stormwater runoff), although drainage system capable of addressing drainage from the north would not be established under this alternative;
- Mineral Resources - similar no impact to the proposed Project;
- Noise - Avoidance of short-term construction noise and long-term traffic noise from residential development on the Project site, and increase in ambient noise levels in the Project area;
- Population and Housing - avoidance of introduction of increased population to the Project area;
- Public Services - avoidance of increased demand for fire, police, park, and library services;
- Utilities and Service Systems - avoidance of impacts on existing utilities such as provision of domestic water, wastewater, storm drainage, electricity, and natural gas services.
- Climate Change - reductions in emissions of greenhouse gases compared to proposed Project.

6.2.2 - Conclusions and Relationship to Project Objectives

While the No Project/No Development Alternative would reduce or avoid all significant impacts associated with the proposed Edgewater Communities Project, this alternative would not achieve any of the Project objectives (see Table 6-6).

6.3 - No Project/Development In Accordance with Existing General Plan Designations Alternative (Alternative 2)

Under the No Project/ Development In Accordance with Existing General Plan Designations Alternative (Alternative 2), improvements to the Project site could only occur in compliance with existing Preserve Specific Plan land use designations: Estate Residential (ER - permitting 2 units per acre or 7 dwelling units total), Open Space/Recreation (OS-R), Agricultural and Open Space Natural (AG/OS-N), and Open Space Natural (OS-N). Acreages for each designation are provided in Table 6-1. Exclusive of the ER land use designation, development potential within the other land use designations can be considered minimal. Existing conditions associated with current and past uses (manure and manure stockpiles, ponds filled with liquid wastewater from onsite and adjacent dairy operations, soils within the agricultural fields impacted by years of placement of solid dairy waste) would largely remain in place since Estate Residential development would be confined to the 3.65 acres immediately adjacent to Chino Corona Road designated for ER uses. Limited infrastructure improvements would be made to the Project site, including to storm drainage and wastewater systems.

Table 6-1: Alternative 2 - No Project/Development in Accordance with Existing General Plan Designations Alternative

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Parcel Acreage (Gross Acres)
Residential	Estate	7	3.65	
	Low Density	n/a	0	
	Medium Density	n/a	0	
	High Density	n/a	0	
Subtotal				3.65
Open Space	OS-Recreation	n/a	14.59	
	OS-Natural	n/a	57.55	
	Agricultural / Open Space Natural	n/a	197.14	
Subtotal				269.28
Total		7	272.93	272.93

6.3.1 - Impact Analysis

Discussion of impacts under the No Project/Development in Accordance with Existing General Plan Designations Alternative (Alternative 2) for the issue areas expected to experience significant and unavoidable impacts from implementation of the proposed Project is as follows.

Aesthetics

Changes to the aesthetic quality or visual character of the site would also be limited under this alternative. Active dairy operations would cease and the 600-800 onsite cows would be removed to allow for the establishment of seven (7) maximum estate residential dwelling units along Chino Corona Road. New sources of light and glare would be limited to lighting associated with the estate residential dwelling units. The open space and agricultural land use designations would remain, and the alteration of existing visual character of the Project site anticipated through conversion of open land to urban uses under the proposed Project would not occur. The proposed Project's significant aesthetics impact would be avoided; therefore, impacts to aesthetics under Alternative 2 would be less than the proposed Project.

Agricultural Resources

This alternative represents limited change with respect to agricultural resources, whereas the proposed Project would result in significant impacts to agricultural resources stemming from the conversion of 150.3 acres of Prime Farmland and 20.1 acres of Unique Farmland (totaling 170.4 acres) to non-agricultural uses. Wastewater and storm water runoff from the four adjacent dairies would continue to be accepted. In order for Project site soils to be suitable to support crops for human consumption, however, onsite soils would need to be remediated to reduce the percentage of dairy waste within the soils. The proposed Project's significant and unavoidable agricultural resources impacts would nevertheless be avoided; therefore, impacts to agricultural resources under Alternative 2 would be less than the proposed Project.

Air Quality

Only limited construction- or operation-related emissions would occur under this alternative. A maximum seven (7) dwelling units would be permitted within the ER designation, and rural residences associated with continued agricultural use would be limited. Without construction and operation of the proposed Project, there would be no exceedance of SCAQMD significance thresholds during the construction and/or operation phases, no conflict with the applicable Air Quality Management Plan, and no cumulatively considerable air quality impacts. Only an estimated 25 persons (7 units x 3.61 persons per household) would occupy the estate residential units along Chino Corona Road under Alternative 2, exposing a considerably smaller population to odors from the GH Dairies to the west. Impacts to air quality under Alternative 2 are considered to be less than under the proposed Project.

Biological Resources

This alternative would not: 1) adversely affect Project site biological resources; 2) conflict with local policies, ordinances, and/or Conservation Plans protecting biological resources; and/or 3) contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. At the same time, selection of this alternative would not result in any of the beneficial aspects of the proposed Project: permanent preservation of 22.9 acres of riparian habitat within open space areas; 29.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of suitable LBV habitat. Overall, however, it can be concluded that impacts to biological resources under this alternative are considered to be less than under the proposed Project.

Land Use and Planning

This alternative would not conflict with applicable land use plans. A maximum seven (7) dwelling units would be permitted within the ER designation, and rural residences associated with continued agricultural use would be limited. Allowable uses within the OS-R, AG/OS-N, and OS-N land use designations would be permitted. Alternative 2 would not conflict with The Preserve Resource Management Plan and Final EIR mitigation measures limiting urban uses to properties above the 566' elevation. This alternative would not result in a significant and irretrievable cumulative loss of open space and agricultural lands. Impacts to land use and planning under Alternative 2 are considered to be less than under the proposed Project.

Recreation

Under Alternative 2, a maximum seven (7) dwelling units would be permitted within the ER designation, and rural residences associated with continued agricultural use would be limited. This alternative would only slightly increase the use of existing neighborhood and regional parks or other recreational facilities, and would contribute only in a limited way to a significant adverse cumulative impact on recreational facilities. Impacts to recreation under this alternative are considered to be less than under the proposed Project.

Transportation and Traffic

Increased traffic generation would be limited to that associated with a maximum seven (7) dwelling units permitted within the ER designation, and allowable uses within the OS-R, AG/OS-N, and OS-N land use designations. Transportation and traffic impacts associated with proposed Project implementation would be avoided under this alternative. Transportation and traffic impacts under Alternative 2 are considered to be less than under the proposed Project.

Other Impacts

Other impacts that were found to be less than significant for the proposed Project would be further reduced or avoided altogether with the implementation of the No Project/Development in Accordance with Existing General Plan Designations Alternative:

- Cultural Resources - reduction in any impacts to archaeological and paleontological resources;
- Geology and Soils - reduction in potential for impacts related to seismicity and unstable soils;
- Hazards and Hazardous Materials - avoidance of broad use of household and landscape hazardous materials, but no clean-up of liquid and solid dairy waste would occur.
- Hydrology and Water Quality - reduction in potential for impacts to hydrology and water quality associated with urbanization (including reduction of impacts associated with the quantity of stormwater runoff), although drainage system capable of addressing drainage from the north would not be established under this alternative;
- Mineral Resources - similar no impact to the proposed Project;
- Noise - reduction in short-term construction noise and long-term traffic noise compared to more extensive residential development on the Project site, and reduced increase in ambient noise levels in the Project area;
- Population and Housing - introduction of only an estimated 25 persons to the Project area versus 3,877 with proposed Project implementation;
- Public Services - reduced increased demand for fire, police, park, and library services;
- Utilities and Service Systems - reduced impacts on existing utilities such as provision of domestic water, wastewater, storm drainage, electricity, and natural gas services.
- Climate Change - reductions in emissions of greenhouse gases compared to proposed Project.

6.3.2 - Conclusions and Relationship to Project Objectives

The No Project/Development in Accordance with Existing General Plan Designations Alternative would reduce or avoid all significant impacts associated with the proposed Edgewater Communities Project. This alternative would achieve some of the Project objectives (see Table 6-6).

6.4 - Agricultural Preservation Through Reduced Development Footprint (Alternative 3)

The Agricultural Preservation through Reduced Development Footprint Alternative (Alternative 3) concentrates urban development in the northern portion of the Project site below Chino Corona Road and off Cucamonga Avenue below the OCFCD property (see Exhibit 6-1). Alternative 3 would include a total of 368 residences in the Estate, Medium, and High Density Residential categories. This alternative would preserve approximately 150 acres of Prime Farmland. Additional features include a small lake, area for church and private school, and museum/retail uses. An Urban Buffer/Transition Area separates developed uses from AG/OS-N and OS-N land use areas. Table 6-2 provides a breakdown of uses within Alternative 3.

Table 6-2: Alternative 3: Agricultural Preservation Though Reduced Development Footprint

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Parcel Acreage (Gross Acres)
Residential	Estate	26	13.3	
	Low Density	—	—	
	Medium Density	222	22.2	
	High Density	120	7.5	
	Church / School	n/a	2.5	
	Museum / Retail	n/a	2.0	
Subtotal				47.5
Open Space	OS-Recreation	n/a	6.7	
	OS-Natural	n/a	61.1	
	OS-Water (Lake)	n/a	1.0	
	OS-Water (Marsh)	—	—	
	Agricultural/Open Space Natural	n/a	150.9	
	Urban Buffer / Transition Area	n/a	5.8	
Subtotal				225.5
Total		368	273.0	273.0

6.4.1 - Impact Analysis

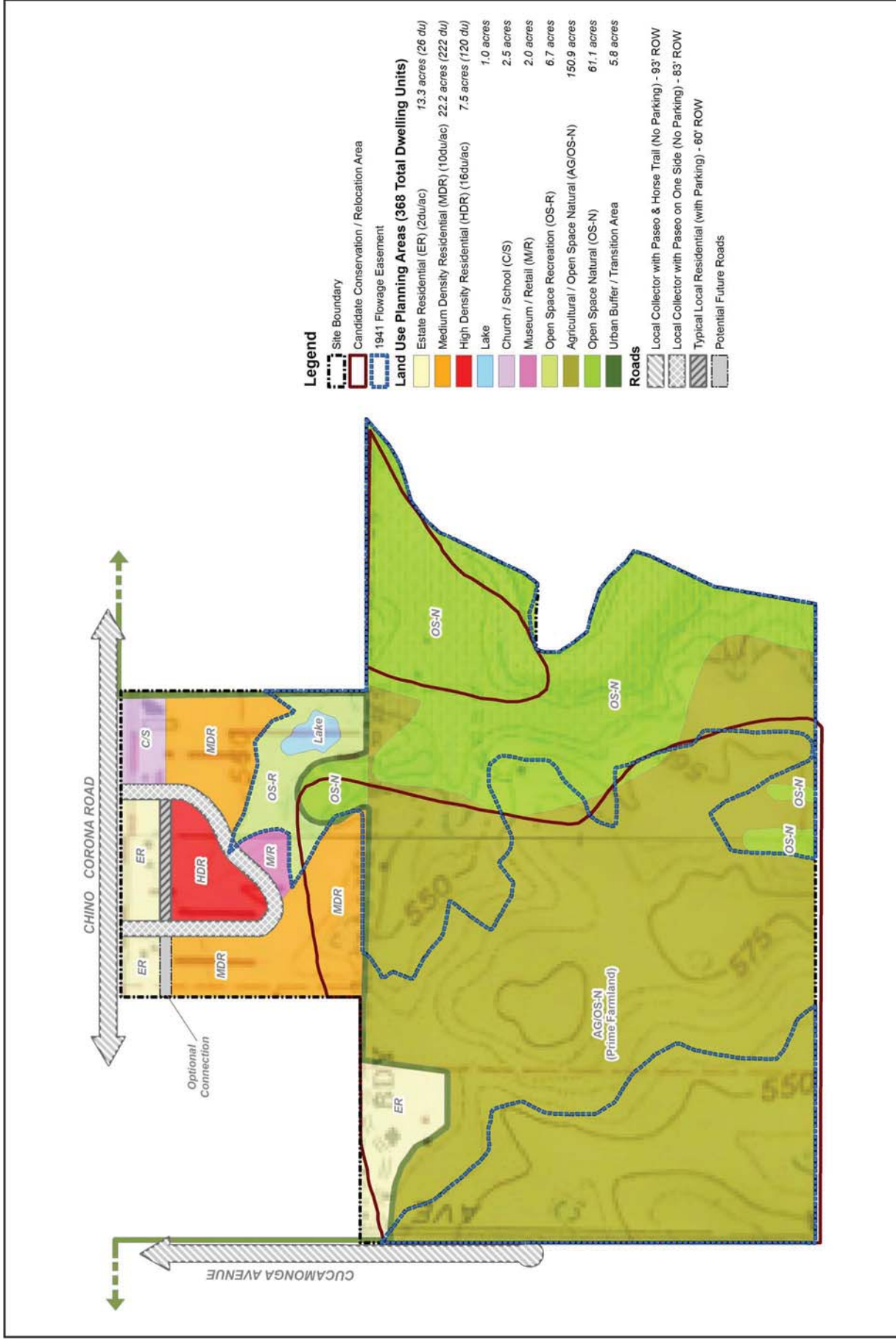
Discussion of impacts under Alternative 3 for the issue areas expected to experience significant and unavoidable impacts from implementation of the proposed Project is as follows.

Aesthetics

Changes to the aesthetic quality or visual character of the site would be limited to the northern portion of the site and the area bordering the OCFCD property under this alternative. Active dairy operations would be removed. Agricultural and open space uses would comprise the majority of the Project site. New sources of light and glare would be introduced, but not at the level of the proposed Project. Impacts to aesthetics under Alternative 3 would be less than the proposed Project.

Agricultural Resources

This alternative would preserve approximately 150 acres of Prime Farmland. Approximately 20 acres of Unique Farmland would be utilized as an open space-natural area. Alternative 3 would not conflict with existing designations for agricultural use. When considered on a regional or cumulative basis, this alternative would not have an impact on the conversion of significant agricultural lands to non-agricultural uses. Impacts to agricultural resources under Alternative 3 would be less than the proposed Project.



Source: Michael Brandman Associates, June 2007.



Michael Brandman Associates

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Exhibit 6-1 Alternative 3 - Agricultural Preservation Through Reduced Development Footprint

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Air Quality

A total of 368 dwelling units would be constructed under this alternative. Without preparing a quantitative analysis, construction-related emissions are difficult to assess because earthwork volumes under Alternative 3 associated with the elevation of areas to the 566' elevation or above that are planned for development of habitable structures, and related trip levels for haul vehicles, are not precisely known. Inclusion of five lakes within the proposed Project comprising 39.22 acres allows greater opportunity than Alternative 3, containing a single one-acre lake, to utilize onsite soil to elevate areas for development. Volumes of unusable soil needing to be exported under Alternative 3 would likely be reduced from the proposed Project since the area designated for development compared to the proposed Project is reduced.

Operation-related emissions would be reduced under this alternative compared to the proposed Project. Alternative 3 would not likely exceed SCAQMD significance thresholds during the operation phase, and cumulatively considerable air quality impacts would be expected to be reduced. An estimated 1328 persons (368 units x 3.61 persons per household) would occupy the residential units under Alternative 3, exposing a smaller population to odors from the GH Dairies to the west. However, clean-up of liquid and solid dairy waste would likely occur only in the developed portion. Impacts to air quality under Alternative 3 are nevertheless considered to be less than under the proposed Project.

Biological Resources

This alternative would not adversely affect Project site biological resources, and would not contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. Alternative 3 would represent a lesser conflict with local policies, ordinances, and/or Conservation Plans protecting biological resources that limit urban uses to above the current 566' elevation. At the same time, selection of this alternative would likely not result in any of the beneficial aspects of the proposed Project based on the reduced unit count (roughly one-third of the units proposed under the proposed Project): permanent preservation of 22.9 acres of riparian habitat within open space areas; 29.7 acres restored native grassland habitat; 10.8 acres basin habitat; and an increased area of suitable LBV habitat. Overall, however, it can be concluded that impacts to biological resources under this alternative are considered to be less than under the proposed Project.

Land Use and Planning

Alternative 3 would represent less of a conflict with applicable land use plans. A larger area would remain under existing land use designations in Alternative 3 than the proposed Project, and conflict with The Preserve Resource Management Plan and Final EIR mitigation measures limiting urban uses to properties above the 566' elevation would be reduced. Only 47.5 acres of the 273-acre site would be developed for urban uses. This alternative would not result in a significant and irretrievable cumulative loss of open space and agricultural lands. Impacts to land use and planning under Alternative 3 are considered to be less than under the proposed Project.

Recreation

Under this alternative, 6.7 acres for open space recreation would be provided. Based on an estimated population of 1,328 persons (368 units x 3.61 persons per household), 3.98 acres of park land would be required (using the City standard of 3 acres per 1000 population, or 1.328×3 acres). Park requirements could be met onsite under this alternative. Impacts to recreation are considered to be less under this alternative than under the proposed Project.

Transportation and Traffic

Increased traffic generation would be associated with the 368 units, church/private school site, museum/retail use, and allowable uses within the OS-R, AG/OS-N, and OS-N land use designations. Transportation and traffic impacts associated with proposed Project implementation would be reduced under this alternative because only one-third of the dwelling units proposed by the proposed Project would be constructed. Transportation and traffic impacts under Alternative 3 are considered to be less than under the proposed Project.

Other Impacts

Other impacts that were found to be less than significant for the proposed Project would be further reduced or avoided altogether with the implementation of Alternative 3:

- Cultural Resources - reduction in any impacts to archaeological and paleontological resources;
- Geology and Soils - reduction in potential for impacts related to seismicity and unstable soils;
- Hazards and Hazardous Materials - reduction of broad use of household and landscape hazardous materials, but clean-up of liquid and solid dairy waste would likely occur only in the developed portion.
- Hydrology and Water Quality - reduction in potential for impacts to hydrology and water quality (including reduction of impacts associated with the quantity of stormwater runoff);
- Mineral Resources - similar no impact to the proposed Project;
- Noise - reduction in short-term construction noise and long-term traffic noise compared to more extensive residential development on the Project site, and reduced increase in ambient noise levels in the Project area;
- Population and Housing - introduction of an estimated 1,328 persons to the Project area versus 3,877 with proposed Project implementation;
- Public Services - reduced increased demand for fire, police, park, and library services;
- Utilities and Service Systems - reduced impacts on existing utilities such as provision of domestic water, wastewater, storm drainage, electricity, and natural gas services.
- Climate Change - reductions in emissions of greenhouse gases compared to proposed Project.

6.4.2 - Conclusions and Relationship to Project Objectives

The Agricultural Preservation through Reduced Development Footprint Alternative would reduce or avoid all significant impacts associated with the proposed Edgewater Communities Project. This alternative would achieve many of the Project objectives (see Table 6-6). Extent of infrastructure improvements required to support 368 units would likely be too costly in comparison to the number of residential units allowed under this alternative, however.

6.5 - Biological Restoration Alternative (Alternative 4)

The Biological Restoration Alternative (Alternative 4) would allow for development of 895 dwelling units (see Exhibit 6-2). Table 6-3 provides a breakdown by residential unit type as well as a listing of Alternative 4 land uses. A church/private school site and museum/retail uses would be provided, as well as areas designated as OS-R, AG/OS-N, and OS-N. Higher density residential uses are concentrated in the northern portion of the site. An Urban Buffer/Transition Area separates developed uses from AG/OS-N and OS-N land use areas.

Table 6-3: Alternative 4: Biological Restoration Alternative

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Parcel Acreage (Gross Acres)
Residential	Estate	42	21.4	
	Low Density	292	53.0	
	Medium Density	353	35.3	
	High Density	208	13.0	
	Church /School	n/a	2.5	
	Museum /Retail	n/a	2.0	
Subtotal				127.2
Open Space	OS-Recreation	n/a	26.5	
	OS-Natural	n/a	66.9	
	OS-Water (Lake)	--	--	
	OS-Water (Marsh)	--	--	
	Agricultural/Open Space Natural	n/a	42.4	
	Urban Buffer / Transition Area	n/a	10.0	
Subtotal				145.8
Total		895	273.0	273.0

6.5.1 - Impact Analysis

Discussion of impacts under Alternative 4 for the issue areas expected to experience significant and unavoidable impacts from implementation of the proposed Project is as follows.

Aesthetics

Changes to the aesthetic quality or visual character of the site would occur under this alternative at a level below but nearly equivalent to the proposed Project. An area designated AG/OS-N comprising approximately 42 acres would be provided along the western site border where the proposed Project would establish a 21.24-acre lake with surrounding area for open space recreation, and some medium-density residential uses to the north. New sources of light and glare would be introduced, but not at the level expected for the proposed Project since dwelling units under Alternative 4 would represent approximately 83% of the unit total proposed by the proposed Project (895/1074). Impacts to aesthetics under Alternative 4 would be less than the proposed Project.

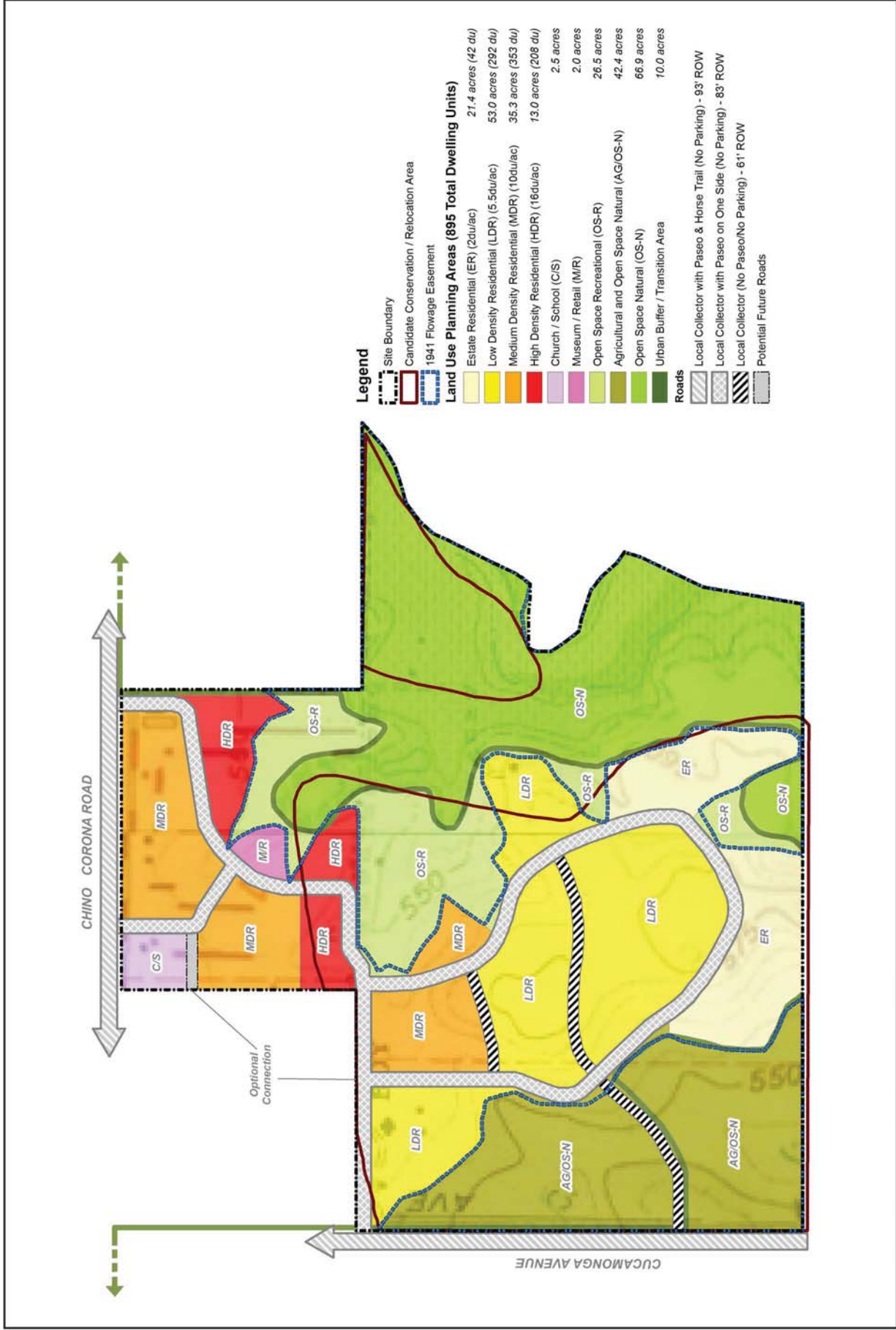
Agricultural Resources

Approximately 42 acres of Prime Farmland within the Project site would be preserved. Limited size of the agricultural portion and need for clean-up could pose challenges in terms of viability, however. Notwithstanding, Alternative 4 would conflict less with existing designations for agricultural use than the proposed Project. When considered on a regional or cumulative basis, this alternative would have less of an impact on the conversion of significant agricultural lands to non-agricultural uses. Impacts to agricultural resources under Alternative 4 would be less than the proposed Project.

Air Quality

A total of 895 dwelling units would be constructed under this alternative. Without preparing a quantitative analysis, construction-related emissions are difficult to assess because earthwork volumes under Alternative 4 associated with the elevation of areas to the 566' elevation or above that are planned for development of habitable structures, and related trip levels for haul vehicles, are not precisely known. Inclusion of five lakes within the proposed Project comprising 39.22 acres allows greater opportunity than Alternative 4, with no lakes, to utilize onsite soil to elevate areas for development. Volumes of unusable soil needing to be exported under Alternative 4 would likely be somewhat reduced from the proposed Project since the area designated for development under Alternative 4 (127.20 acres) compared to the proposed Project (142.09 acres) is reduced by approximately 14.89 acres.

Operation-related emissions would be reduced under this alternative compared to the proposed Project. Without preparing a quantitative analysis, it is not known whether Alternative 4 would exceed SCAQMD significance thresholds during the construction and/or operation phases, but cumulatively considerable air quality impacts would be expected to be reduced. An estimated 3231



Source: Michael Brandman Associates, June 2007.



Michael Brandman Associates

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Exhibit 6-2 Alternative 4 - Biological Restoration Alternative

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persons (895 units x 3.61 persons per household) would occupy the residential units under Alternative 4, exposing a lesser population to odors from the GH Dairies to the west than the proposed Project. Partial or complete clean-up of liquid and solid dairy waste would be expected to occur. Impacts to air quality under Alternative 4 are considered to be somewhat less than under the proposed Project.

Biological Resources

This alternative could adversely affect Project site biological resources, and would contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. Alternative 4 would represent a conflict with local policies, ordinances, and/or Conservation Plans protecting biological resources that limit urban uses to above the current 566' elevation. Selection of this alternative could result in some of the beneficial aspects of the proposed Project based on a unit count representing 83% of the unit total proposed by the proposed Project, such as permanent preservation of riparian habitat within open space areas; restored native grassland habitat; and establishment of basin habitat. Impacts to biological resources under this alternative are considered to be equivalent to those under the proposed Project.

Land Use and Planning

Alternative 4 would represent a conflict with applicable land use plans. The Preserve Specific Plan land use designations for the Project site would need to be modified, and conflict with The Preserve Resource Management Plan and Final EIR mitigation measures limiting urban uses to properties above the current 566' elevation would occur. Alternative 4 would still contribute to a significant and irretrievable cumulative loss of open space and agricultural lands.

However, because this alternative would convert slightly fewer acres to developed uses (approximately 127.2 acres under Alternative 4 compared to 142.09 acres under the proposed Project), and would maintain approximately 42 acres of Prime Farmland within an AG/OS-N land use designation, impacts to land use and planning under Alternative 4 are considered to be less than under the proposed Project.

Recreation

Under this alternative, little to none of the open space recreational area could be expected to be developed for active recreational uses and thereby qualify to be counted to satisfy City park land requirements. Based on an estimated population of 3,231 persons (895 units x 3.61 persons per household), 9.69 acres of park land would be required (using the City standard of 3 acres per 1000 population, or $3,231 \times 3$ acres). Park requirements would, therefore, not be met onsite under this alternative. Impacts to recreation are considered to be equivalent under Alternative 4 to the proposed Project.

Transportation and Traffic

Increased traffic generation would be associated with the 895 units, church/private school site, museum/retail use, and allowable uses within the OS-R, AG/OS-N, and OS-N land use designations. Transportation and traffic impacts associated with proposed Project implementation would be reduced under this alternative because only 83% of the dwelling units proposed by the proposed Project would be constructed. Transportation and traffic impacts under Alternative 4 are considered to be less than under the proposed Project.

Other Impacts

Other impacts that were found to be less than significant for the proposed Project would be further reduced with the implementation of the Alternative 4 due to a somewhat smaller development footprint and fewer residential dwelling units:

- Cultural Resources -roughly equivalent impacts to archaeological and paleontological resources as proposed Project;
- Geology and Soils - reduction in potential for impacts related to seismicity and unstable soils based on unit reduction of 17%;
- Hazards and Hazardous Materials - equivalent impacts to hazards and hazardous materials as proposed Project;
- Hydrology and Water Quality - nearly similar potential for impacts to water quality; elevation of property designated for residential use under this alternative but currently below 566' elevation would still need to be elevated;
- Mineral Resources - similar no impact to the proposed Project;
- Noise - partial reduction in short-term construction noise and long-term traffic noise compared to less extensive residential development on the Project site, and partially reduced increase in ambient noise levels in the Project area;
- Population and Housing - introduction of an estimated 3,231 persons to the Project area versus 3,877 with proposed Project implementation;
- Public Services -partially reduced increased demand for fire, police, park, and library services;
- Utilities and Service Systems - partially reduced impacts on existing utilities such as provision of domestic water, wastewater, storm drainage, electricity, and natural gas services.
- Climate Change - partial reduction in emissions of greenhouse gases compared to proposed Project.

6.5.2 - Conclusions and Relationship to Project Objectives

As indicated later in this section in Table 6-5, the Biological Restoration Alternative (Alternative 4) would reduce some significant impacts associated with the proposed Edgewater Communities Project. This alternative would achieve most of the Project objectives (see Table 6-6).

Table 6-4: Alternative 5: View/Lake Alternative

Land Use	Type	Dwelling Units (du)	Parcel Acreage (Gross Acres)	Parcel Acreage (Gross Acres)
Residential	Estate	53	26.7	
	Low Density	331	60.2	
	Medium Density	223	22.3	
	High Density	275	17.2	
	Church /School	n/a	2.5	
	Museum /Retail	n/a	1.5	
Subtotal				130.4
Open Space	OS-Recreation	n/a	31.1	
	OS-Natural	n/a	93.1	
	OS-Water (Lake)	n/a	4.1	
	OS-Water (Marsh)	n/a	4.3	
	Agricultural/Open Space Natural	--	--	
	Urban Buffer / Transition Area	n/a	10.0	
Subtotal				142.6
Total		882	273.0	273.0

6.6 - View/Lake Alternative (Alternative 5)

The View/Lake Alternative (Alternative 5) would allow for development of 882 total dwelling units (see Exhibit 6-3). Table 6-4 provides a breakdown by residential unit type as well as a listing of Alternative 5 land uses. A church/private school site, museum/retail uses, two lakes and two marshes would be provided, as well as areas designated as OS-R, and OS-N. Higher density residential uses are concentrated in the northern portion of the site. An Urban Buffer/Transition Area separates developed uses from OS-N land use areas.

6.6.1 - Impact Analysis

Discussion of impacts under Alternative 5 for the issue areas expected to experience significant and unavoidable impacts from implementation of the proposed Project is as follows.

Aesthetics

Changes to the aesthetic quality or visual character of the site would occur under this alternative at a level below but nearly equivalent to the proposed Project. An area designated OS-N with a marsh area would be provided along the western site border where the proposed Project would establish a 21.24-acre lake with surrounding area for open space recreation, and some medium-density residential uses to the north. New sources of light and glare would be introduced, but not at the level expected for the proposed Project since dwelling units under Alternative 5 would represent approximately 82% of the unit total proposed by the proposed Project (882/1074). Impacts to aesthetics under Alternative 5 would be less than the proposed Project.

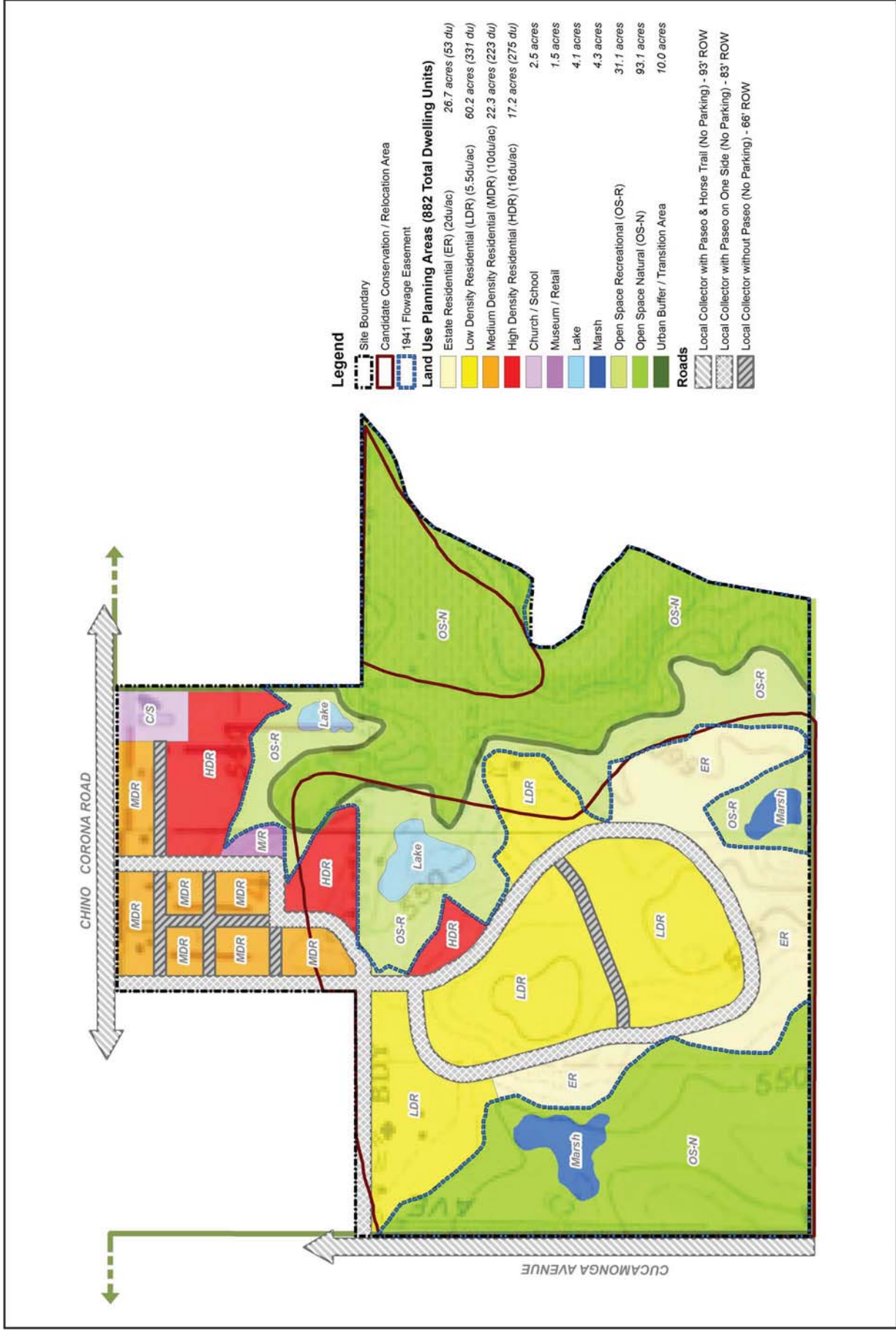
Agricultural Resources

Alternative 5 would incorporate some Prime and Unique Farmland acreage now designated as AG/OS-N under The Preserve Specific Plan into areas designated as OS-N under Alternative 5. Alternative 5 would conflict less with existing designations for agricultural use than the proposed Project since OS-N areas would remain as open land and not be developed for urban uses. Impacts to agricultural resources under Alternative 5 would be less than the proposed Project.

Air Quality

A total of 882 dwelling units would be constructed under this alternative. Without preparing a quantitative analysis, construction-related emissions are difficult to assess because earthwork volumes under Alternative 5 associated with the elevation of areas to the 566' elevation or above that are planned for development of habitable structures, and related trip levels for haul vehicles, are not precisely known. Inclusion of five lakes within the proposed Project comprising 39.22 acres allows greater opportunity than Alternative 5, with two small lakes totaling 4.1 acres, to utilize onsite soil to elevate areas for development. Volumes of unusable soil needing to be exported under Alternative 5 would likely be somewhat reduced from the proposed Project since the area designated for development under Alternative 5 (130.40 acres) compared to the proposed Project (142.09 acres) is reduced by approximately 11.69 acres.

Operation-related emissions would be reduced under this alternative compared to the proposed Project. Without preparing a quantitative analysis, it is not known whether Alternative 5 would exceed SCAQMD significance thresholds during the construction and/or operation phases, but cumulatively considerable air quality impacts would be expected to be reduced. An estimated 3,184 persons (882 units x 3.61 persons per household) would occupy the residential units under Alternative 5, exposing a lesser population to odors from the GH Dairies to the west than the proposed Project. Partial or complete clean-up of liquid and solid dairy waste would be expected to occur. Impacts to air quality under Alternative 5 are considered to be somewhat less than under the proposed Project.



Source: Michael Brandman Associates, June 2007.



Michael Brandman Associates

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Exhibit 6-3 Alternative 5 - View / Lake Alternative

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Biological Resources

This alternative could adversely affect Project site biological resources, and would contribute to the cumulative impact of raptor foraging habitat loss in the Prado Basin area. Alternative 5 would represent a conflict with local policies, ordinances, and/or Conservation Plans protecting biological resources that limit urban uses to above the current 566' elevation. Selection of this alternative could result in some of the beneficial aspects of the proposed Project based on a unit count representing 82% of the unit total proposed by the proposed Project, such as permanent preservation of riparian habitat within open space areas; restored native grassland habitat; and establishment of basin habitat. Lake size would limit lake edge habitat development, however. Impacts to biological resources under this alternative are considered to be equivalent to those under the proposed Project.

Land Use and Planning

Alternative 5 would represent a conflict with applicable land use plans. The Preserve Specific Plan land use designations for the Project site would need to be modified, and conflict with The Preserve Resource Management Plan and Final EIR mitigation measures limiting urban uses to properties above the current 566' elevation would occur. Alternative 5 would still contribute to a significant and irretrievable cumulative loss of open space and agricultural lands. However, because this alternative would convert slightly fewer acres to developed uses (approximately 130.4 acres under Alternative 5 compared to 142.09 acres under the proposed Project), and would maintain some Prime Farmland and Unique Farmland acreage within OS-N areas, impacts to land use and planning under Alternative 5 are considered to be less than under the proposed Project.

Recreation

Under this alternative, little to none of the open space recreational area could be expected to be developed for active recreational uses and qualify to be counted to satisfy City park land requirements. Based on an estimated population of 3,184 persons (882 units x 3.61 persons per household), 9.55 acres of park land would be required (using the City standard of 3 acres per 1000 population, or 3.184×3 acres). Lake size would present more limited opportunities for fishing and non-motorized boating. Park requirements would not be met onsite under this alternative. Impacts to recreation are considered to be equivalent under Alternative 5 to the proposed Project.

Transportation and Traffic

Increased traffic generation would be associated with the 882 units, church/private school site, museum/retail use, and allowable uses within the OS-R and OS-N land use designations. Transportation and traffic impacts associated with proposed Project implementation would be reduced under this alternative because only 82% of the dwelling units proposed by the proposed Project would be constructed. Transportation and traffic impacts under Alternative 5 are considered to be less than under the proposed Project.

Other Impacts

Other impacts that were found to be less than significant for the proposed Project would be further reduced with the implementation of Alternative 5 due to a somewhat smaller development footprint and fewer residential dwelling units:

- Cultural Resources -roughly equivalent impacts to archaeological and paleontological resources as proposed Project;
- Geology and Soils - reduction in potential for impacts related to seismicity and unstable soils based on unit reduction of 18%;
- Hazards and Hazardous Materials - equivalent impacts to hazards and hazardous materials as proposed Project;
- Hydrology and Water Quality - nearly similar potential for impacts to water quality; elevation of property designated for residential use under this alternative but currently below 566' elevation would still need to be elevated;
- Mineral Resources - similar no impact to the proposed Project;
- Noise - partial reduction in short-term construction noise and long-term traffic noise compared to less extensive residential development on the Project site, and partially reduced increase in ambient noise levels in the Project area;
- Population and Housing - introduction of an estimated 3,184 persons to the Project area versus 3,877 with proposed Project implementation;
- Public Services -partially reduced increased demand for fire, police, park, and library services;
- Utilities and Service Systems - partially reduced impacts on existing utilities such as provision of domestic water, wastewater, storm drainage, electricity, and natural gas services.
- Climate Change - partial reduction in emissions of greenhouse gases compared to proposed Project.

6.6.2 - Conclusions and Relationship to Project Objectives

As indicated later in this section in Table 6-5, the View/Lake Alternative (Alternative 5) would reduce some significant impacts associated with the proposed Edgewater Communities Project. This alternative would achieve all of the Project objectives, except Objective 9 because the emphasis would be on medium- and high-density residential uses over low-density single-family, large-lot homes (see Table 6-6).

6.7 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed Project are summarized in Table 6-5. Table 6-6 compares Project alternatives to Project objectives. CEQA

Guidelines § 15126(e)(2) requires an EIR to identify an “environmentally superior alternative.” If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

Each of the proposed alternatives would have lesser environmental impacts relative to the proposed Project, with the following alternatives having the highest amount of reduced impacts: No Project/No Development (Alternative 1); No Project/Development in Accordance with Existing General Plan Designations (Alternative 2); and Agricultural Preservation Through Reduced Development Footprint (Alternative 3). As stated previously, if the No Project Alternative is environmentally superior, the EIR must also identify another environmentally superior alternative among the remaining alternatives. Based on this consideration, Alternative 3 - Agricultural Preservation Through Reduced Development Footprint is considered the environmentally superior alternative.

This alternative has lesser impacts than the proposed Project in the following areas: aesthetics; agricultural resources; air quality; biological resources; land use and planning; recreation; and transportation/traffic. Therefore, Alternative 3 - Agricultural Preservation Through Reduced Development Footprint is considered the environmentally superior alternative.

A Preferred Plan Alternative (PPA, Alternative 6) is discussed in Section 7 of this Draft EIR. The PPA contains design features, urban design concepts, and street patterns that are sensitive to the natural features of the Project site and the concerns expressed during the scoping process by the public, agency and City Staff. Based on the analysis contained in Section 7 for the PPA, Alternative 3 is still considered the environmentally superior alternative, however.

6.8 - Alternatives Rejected From Further Consideration

No alternative locations were considered for the Edgewater Communities Project because no alternative locations provided sufficient size and suitability to support a lake-oriented community. For these reasons, analyzing an alternative location was not feasible.

Table 6-5: Impact Summary Comparison of Project Alternatives with Proposed Project

Environmental Issue	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: No Project/Development in accordance with Existing General Plan Designations	Alternative 3: Agricultural Preservation Through Reduced Development Footprint	Alternative 4: Biological Restoration	Alternative 5: View/ Lake
Aesthetics	SIG	L	L	L	L	L
Agricultural Resources	SIG	L	L	L	L	L
Air Quality	SIG	L	L	L	L	L

Table 6-5 (Cont.): Impact Summary Comparison of Project Alternatives with Proposed Project

Environmental Issue	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: No Project/Development in accordance with Existing General Plan Designations	Alternative 3: Agricultural Preservation Through Reduced Development Footprint	Alternative 4: Biological Restoration	Alternative 5: View/ Lake
Biological Resources	SIG	L	L	L	E	E
Cultural Resources	LTS	E	E	E	E	L
Geology and Soils	LTS	E	E	E	E	E
Hazards and Hazardous Materials	LTS	E	E	E	E	E
Hydrology and Water Quality	LTS	E	E	E	E	E
Land Use and Planning	SIG	L	L	L	L	L
Mineral Resources	LTS	E	E	E	E	E
Noise	LTS	E	E	E	E	E
Population and Housing	LTS	E	E	E	E	E
Public Services	LTS	E	E	E	E	E
Recreation	SIG	L	L	L	E	E
Transportation/Traffic	SIG	L	L	L	L	L
Utilities and Service Systems	LTS	E	E	E	E	E
Climate Change	LTS	E	E	E	E	E
L = Lesser impact than the proposed Project. G = Greater impact than the proposed Project. SIG = Significant						
E = Equivalent impact to the proposed project. LTS = Less than Significant.						

Table 6-6: Objective Feasibility Comparison

Objectives	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: No Project/Development in Accordance with Existing General Plan Designations	Alternative 3: Agricultural Preservation Through Reduced Development Footprint	Alternative 4: Biological Restoration	Alternative 5: View/Lake
OBJ-1 Implement land uses in the Edgewater Project site so that new land uses complement the existing and planned uses within The Preserve Specific Plan area.	Yes	No	Yes	Yes	Yes	Yes
OBJ-2 Design a development plan for the Edgewater Project site that integrates with The Preserve Specific Plan in terms of Development Regulations, Traffic & Circulation, Open Space System, Infrastructure, and Landscaping.	Yes	No	Yes	Yes	Yes	Yes
OBJ-3 Provide an open-space and lake-oriented community on the Project site that is designed to complement the natural, gently rolling terrain and view characteristics of the site, both within the site toward Project aesthetic features, and of distant mountain views.	Yes	No	No	No	No	Yes
OBJ-4 Design a development plan for the Project site that protects existing quality habitat and rehabilitates degraded habitat for plants and wildlife.	Yes	No	Yes	Yes	Yes	Yes
OBJ-5 • Provide higher density residential uses within close proximity to The Preserve Community Core and to the recreational and open space amenities within the Edgewater Project to promote pedestrian connection to	Yes	No	No	Yes	Yes	Yes

Table 6-6 (Cont.): Objective Feasibility Comparison

Objectives	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: No Project/Development in Accordance with Existing General Plan Designations	Alternative 3: Agricultural Preservation Through Reduced Development Footprint	Alternative 4: Biological Restoration	Alternative 5: View/Lake
the amenities within the Edgewater Project and Community Core.						
OBJ-6 Encourage walkable linkages and connectivity of the Edgewater site through land use siting, and open space and trails, resulting in enhanced access to support services and a higher level of community interaction.	Yes	No	Yes	Yes	Yes	Yes
OBJ-7 Plan and develop the Edgewater Project as a cohesive community within The Preserve with a unifying architectural and landscape design theme, utilizing variety in the design of structures within this context.	Yes	No	No	Yes	Yes	Yes
OBJ-8 Provide a well planned development that generates revenue in balance with the cost of providing services.	Yes	No	Yes	No	Yes	Yes
OBJ-9 Provide a mix of high quality, low-, medium-, and high-density residential neighborhoods that have access to the open space and water features of the development and are complemented by private recreational facilities, church/school, and museum/retail uses, but with an emphasis on low-density single-family, large-lot homes.	Yes	No	No	No	No	No

Table 6-6 (Cont.): Objective Feasibility Comparison

Objectives	Proposed Project	Alternative 1: No Project/No Development	Alternative 2: No Project/Development in Accordance with Existing General Plan Designations	Alternative 3: Agricultural Preservation Through Reduced Development Footprint	Alternative 4: Biological Restoration	Alternative 5: View/Lake
OBJ-10 Provide a variety of lot configurations for both attached and detached homes, including, but not limited to: zero lot line, “z” lots, and detached condominiums.	Yes	No	No	Yes	Yes	Yes
OBJ-11 In areas of varied topography, promote site planning techniques that accommodate the natural terrain of the site (versus a grid-like development).	Yes	No	Yes	Yes	Yes	Yes

SECTION 7: PREFERRED PLAN ALTERNATIVE

7.1 - Description of Preferred Plan Alternative - Alternative 6

The Preferred Plan Alternative (PPA, referred to as Alternative 6) reflects a modified Project Plan that was prepared by the Applicant in response to City Staff concerns with the proposed Project design, and public and agency input during the scoping process. The PPA reflects design features, urban design concepts, and street patterns that are sensitive to the natural features of the Project site. The PPA includes a decrease in low-density residential acreage, an increase in medium- and high-density residential acreage, and the addition of estate residential acreage (see Exhibit 7-1 and Table 7-1). The PPA is divided into 18 Planning Areas (PA) with 138.10 acres developable land, and 134.83 acres open space (recreation, water and natural), to comprise the total site acreage of 272.93 acres. The PPA also includes two access drives along Cucamonga Avenue and two along Chino Corona Road. The PPA maintains the primary entry point for the Project site along Chino Corona Road. The PPA identifies a possible location for a church and/or private school in the northeast corner of the Project site within PA-3, and museum/retail uses in the northwestern central portion of the Project site within PA-5.

The PPA includes five lakes. Exhibit 7-1 identifies view corridors directed toward the five lakes as well as Mill Creek and adjacent open space natural and open space recreation areas. Medium- and high-density residential areas are located in the northernmost portion of the Project site in close proximity to The Preserve Community Core, promoting pedestrian connection to the amenities within the Community Core. Medium-density residential uses are also located in the central portion of the site. The lower density residential uses (low-density and estate residential) are oriented toward the proposed lakes and are located south of the concentration of higher density residential uses located in the northernmost portion of the site (see Exhibits 7-2 and 7-3).

Table 7-1: Preferred Plan Alternative Land Use Summary

Planning Area	Land Use	Area in Acres		Average Density	Maximum Units	
Developable Area						
PA-1	High Density	7.2		16.0	115	
PA-2	High Density	12.9		16.0	207	
Subtotal High Density			20.1			322
PA-3	Medium Density	20.7		10.0	207	
PA-4	Medium Density	7.9		10.0	79	
PA-5	Medium Density	5.1		10.0	51	

Table 7-1 (Cont.): Preferred Plan Alternative Land Use Summary

Planning Area	Land Use	Area in Acres		Average Density	Maximum Units	
Subtotal Medium Density			33.7			337
PA-6	Low Density	70.4		5.5	387	
Subtotal Low Density			70.4			387
PA-7	Estate	3.8		2.0	8	
PA-8	Estate	10.1		2.0	20	
Subtotal Estate			13.9		28	
Subtotal Developable			138.1			1,074
Open Space Recreation						
PA-9	Open Space Recreation (Private Park with Lake 2)	5.7				
PA-10	Open Space Recreation (Formative Park)	3.4				
PA-11	Open Space Recreation	4.0				
PA-12	Open Space Recreation (Chino Corona Road)	1.9				
PA-13	Open Space Recreation	52.99				
PA-14	Open Space Recreation (Public Park with Lake 3)	23.1				
Subtotal Open Space Recreation			91.09			
Open Space Water						
PA-15	Open Space Water (Lake 1)	20.09				
PA-16	Open Space Water (Lake 4)	0.72				
PA-17	Open Space Water (Lake 5)	2.70				
Subtotal Open Space Water			23.51			
Open Space Natural						
PA-18	Open Space Natural (Mill Creek)	20.23				

Edgewater - Revised Land Use Summary (Nov. 19, 2007)					
PLANNING UNIT #	LA ND USE	AREA IN ACRES	AVERAGE DENSITY	AV. ANNUAL E. GROSS TR.	MAJ. MOM. UNITS
Dominant Land Use					
PA-1	High Density	7.2	16.0	115	
PA-2	High Density	12.9	16.0	207	
Subtotal High Density					
			20.1		322
PA-3	Medium Density	20.7	10.0	207	
PA-4	Medium Density	7.9	10.0	79	
PA-5	Medium Density	5.1	10.0	51	
Subtotal Medium Density					
			33.7		337
PA-6	Low Density		70.4	5.5	387
PA-7	Estate	3.8	2.0	8	
PA-8	Estate	10.1	2.0	20	
Subtotal Estate					
			13.9		28
Subtotal developable					
			138.1		1,074
Open Space, Wetland, Water					
PA-9	Open Space Rec (Private Park w/ Lake 2)	5.7			
PA-10	Open Space Rec (Formal Park)	3.4			
PA-11	Open Space Rec	4.0			
PA-12	Open Space Rec (Chino-Corona Road)	1.9			
PA-13	Open Space Rec	52.99			
PA-14	Open Space Rec (Public Park w/ Lake 3)	23.1			
Subtotal Open Space Rec					
			91.09		
Open Space, Wetland, Water					
PA-15	Open Space Water (Lake 1)	20.09			
PA-16	Open Space Water (Lake 4)	0.72			
PA-17	Open Space Water (Lake 5)	2.70			
Subtotal Open Space Water					
			23.51		
Open Space, Wetland, Water					
PA-18	Open Space Natural (Mill Creek)		20.23		
Subtotal Open Space					
			134.83		
PROJ ECT IO TA L					
			272.93		

Based on PCS Plan received January 9, 2008.

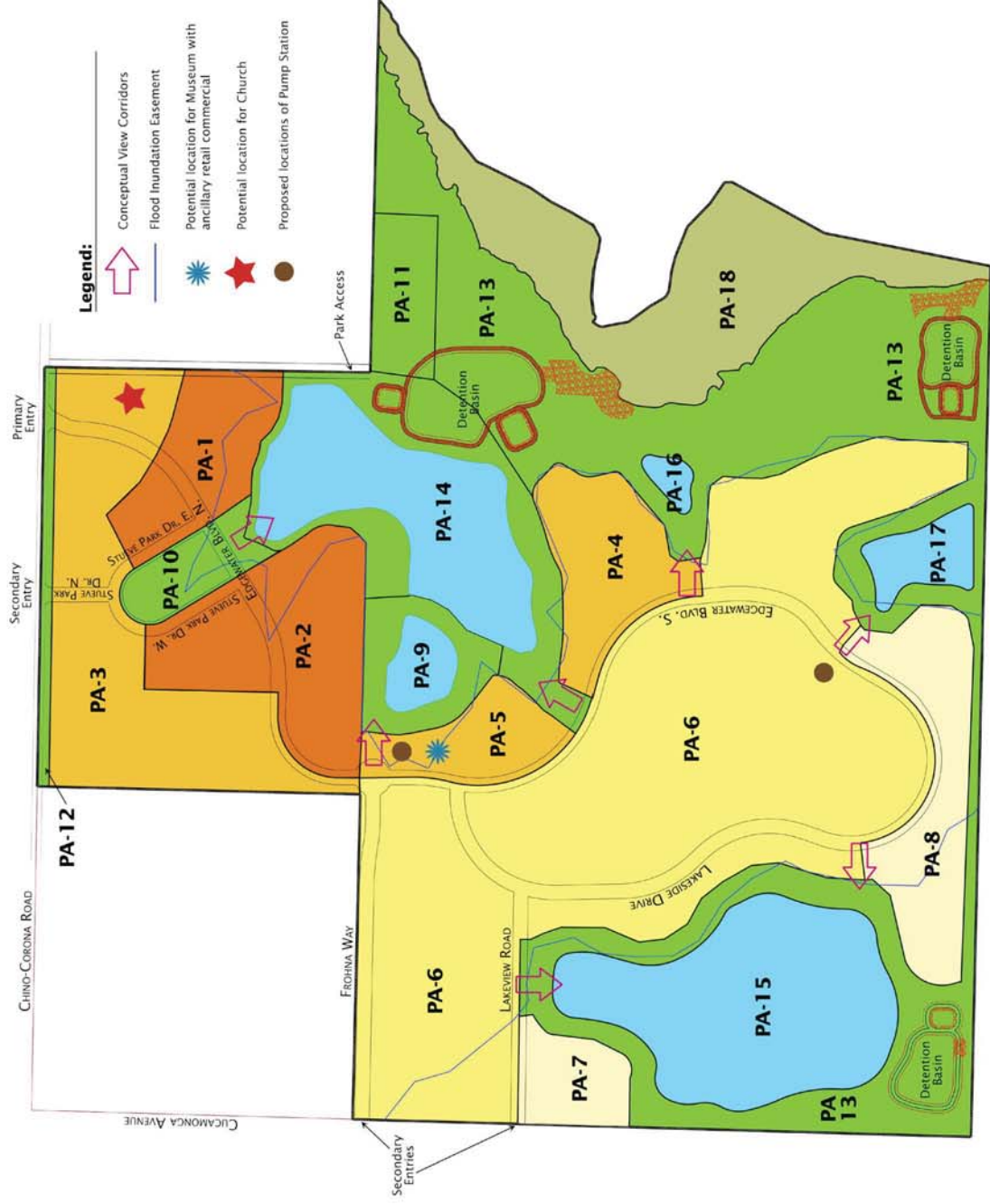


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Source: PBR, February 2008.

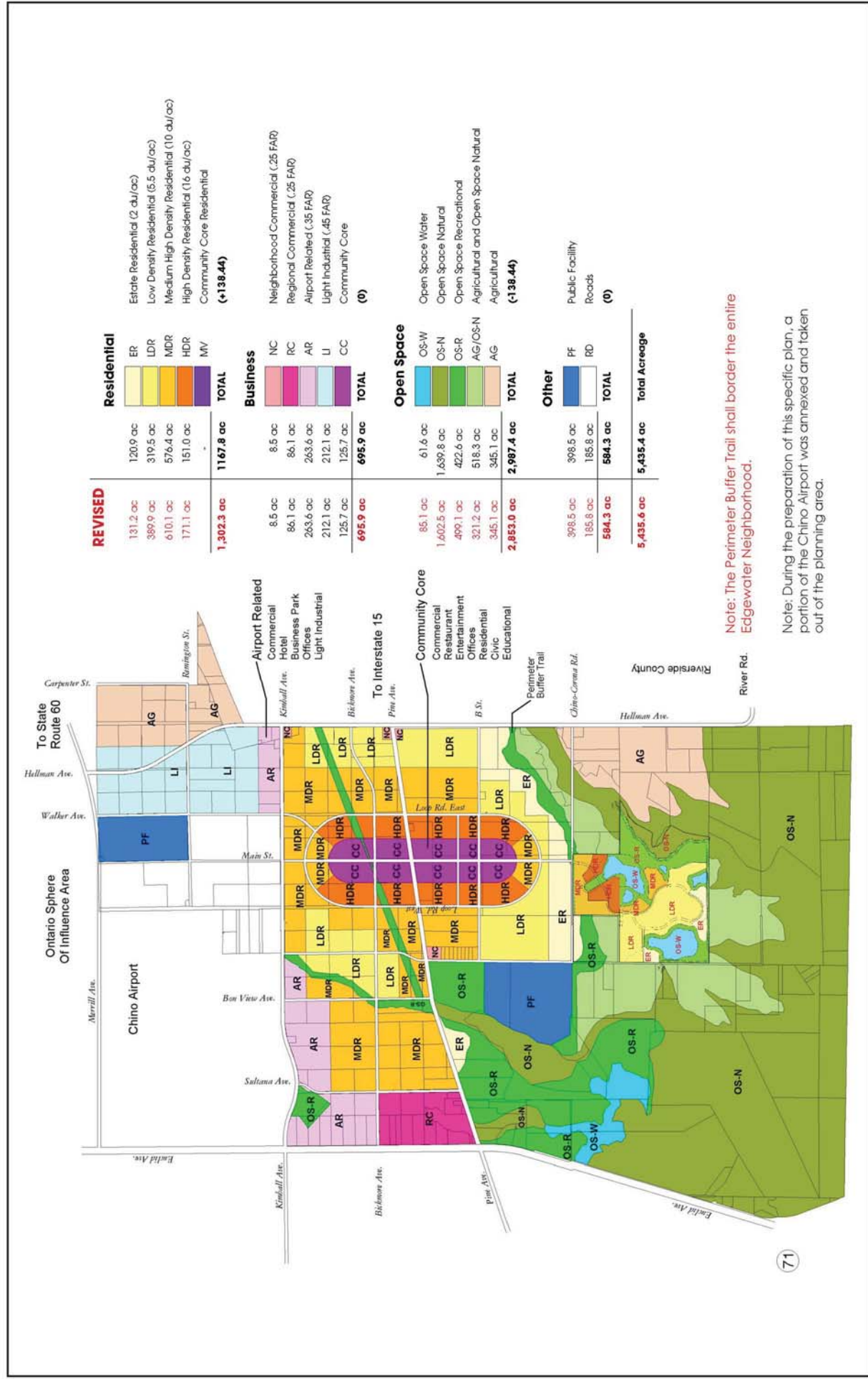


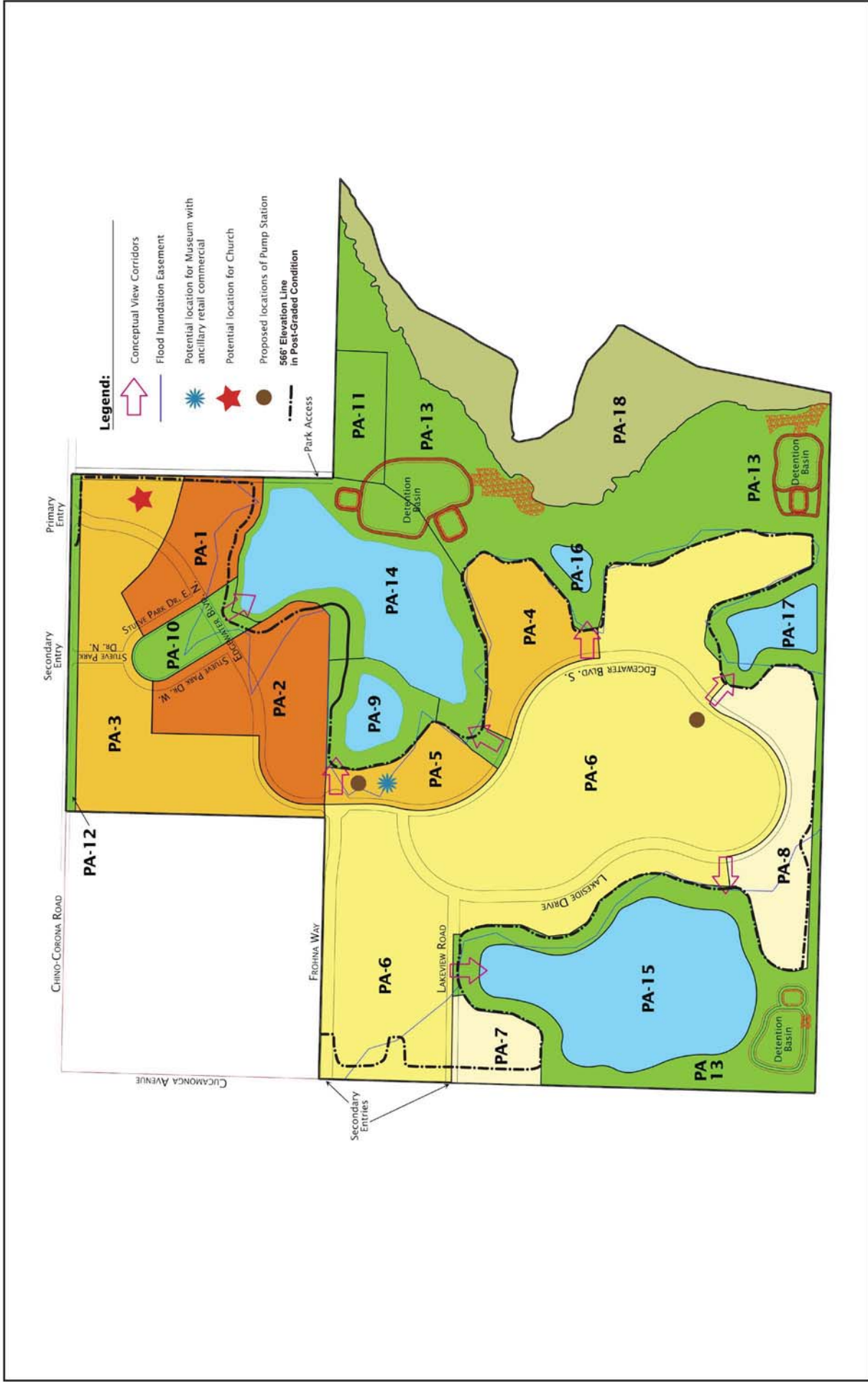
Legend:

- Conceptual View Corridors
- Flood Inundation Corridor
- Potential location for Museum with ancillary retail commercial
- Potential location for Church
- Proposed locations of Pump Station

Exhibit 7-1 Preferred Plan Alternative

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Source: PBR and Huitt-Zollars, May 2008.



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Exhibit 7-3 Preferred Plan Alternative 566' Elevation Line in Post-Graded Condition

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Table 7-1 (Cont.): Preferred Plan Alternative Land Use Summary

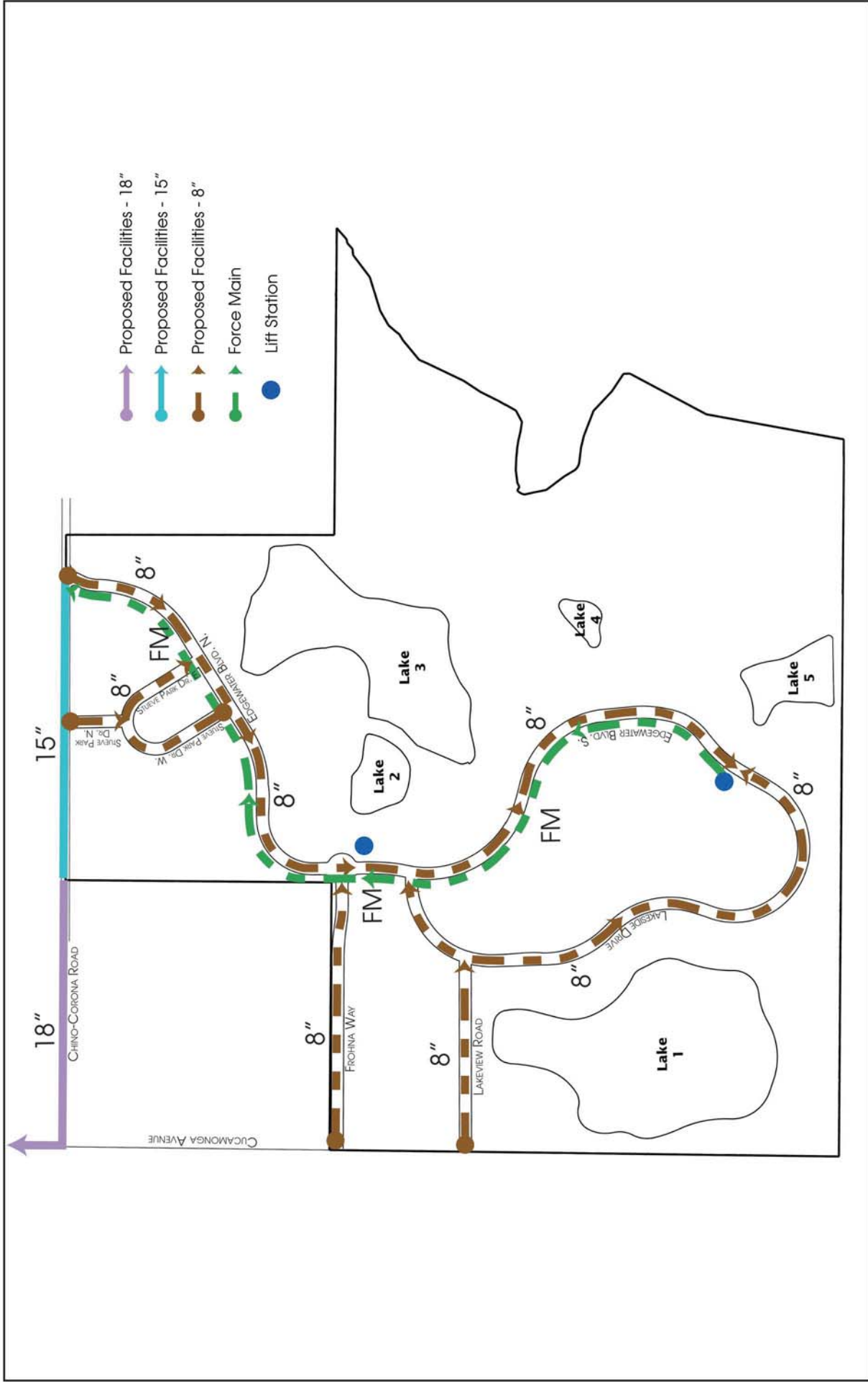
Planning Area	Land Use	Area in Acres	Average Density	Maximum Units
Subtotal Open Space Natural		20.23		
Subtotal Open Space (Recreation, Water and Natural)		134.83		
PROJECT TOTAL		272.93		
Source: PBR, February 2008.				

In the process of modifying the proposed Project Plan to produce the Preferred Plan Alternative (Alternative 6), project design features (PDFs) were formulated to enumerate the positive features of the proposed Project that should be carried over to a modified plan. The PDFs were then further expanded and enhanced to resolve issues identified by the public, agency, and City Staff and/or potential environmental impacts associated with implementation of the proposed Project. These PDFs for the Preferred Plan Alternative are as follows:

- PDF - 1** The incorporation of design guidelines into the Specific Plan and Master Site Plan approvals for the PPA will minimize visual impacts and protect hillside and lake views by regulating the architectural style and heights of proposed buildings, incorporating landscape screening, and directing lighting to reduce spillage and glare onto surrounding properties.
- PDF - 2** The re-grading of the Project site will create depressed areas for lakes and elevated areas for residential development, minimizing the loss of dam storage due to site development and potentially increase storage capacity.
- PDF - 3** The Urban Buffer/Transition Area and trails network will protect sensitive habitat and create a physical separation between urban development and open space uses. Additionally, this PDF will provide access to open space features for the residents of the Project site as well as from surrounding communities.
- PDF - 4** The external and internal Paseo Network will provide access to the community core and on and offsite recreational facilities, thereby decreasing the use of automobiles and potentially reducing the daily automobile trips per household.
- PDF - 5** The provision of Class I and Class II bike trails will provide links to major features of the proposed Project with the community core, other residential areas and public facilities.

- PDF - 6** The PPA will provide for additional habitat for sensitive species, reduce the amount of runoff that is generated by the developed site, and reduce the size of the detention/infiltration basins needed at the outlet structures.
- PDF - 7** The Grasslands Restoration Site will provide a safe habitat area for the burrowing owl and provide a visual and physical buffer between the residential development and Mill Creek.
- PDF - 8** The 3.4-acre active park will provide a green space that will be used for recreational uses as well as a transition area between the planned medium and high density residential areas. The park will connect the various neighborhoods and can be reached by walking or biking by utilizing the proposed trail system.
- PDF - 9** The private recreational facility will provide onsite recreational opportunities for the residents of the Project site, which may decrease the number of automobile trips offsite.
- PDF - 10** The Estate Residential land use designations are located adjacent to the open space areas of the PPA, providing a buffer from the more intense residential land uses located to the north of the Project site.
- PDF - 11** Storm drain outlet structures will be constructed with detention/infiltration basins to help reduce the amount of runoff created by the developed site. These basins will be designed to detain and promote infiltration of the difference in undeveloped vs. developed runoff quantities. The basins will also assist in the recharge of the natural groundwater table and provide a safe habitat for burrowing owls.
- PDF - 12** The bio-swales will provide additional water quality enhancement and treatment for urban waters before they enter Mill Creek by acting as a polishing stage for the breakdown of bacteria, nutrients and other constituent pollutants.
- PDF - 13** The storm drain system will be equipped with a storm drain clarifier system to further improve water quality.
- PDF - 14** The landscape guidelines will promote the use of drought tolerate vegetation to reduce the use of irrigation. The irrigation system will be designed to be an efficient system that will help to reduce unnecessary landscaping overspray and water consumption.

Exhibits 7-4 through 7-10 provide additional information about the various aspects of the Preferred Plan Alternative.



Source: PBR, May 2008.



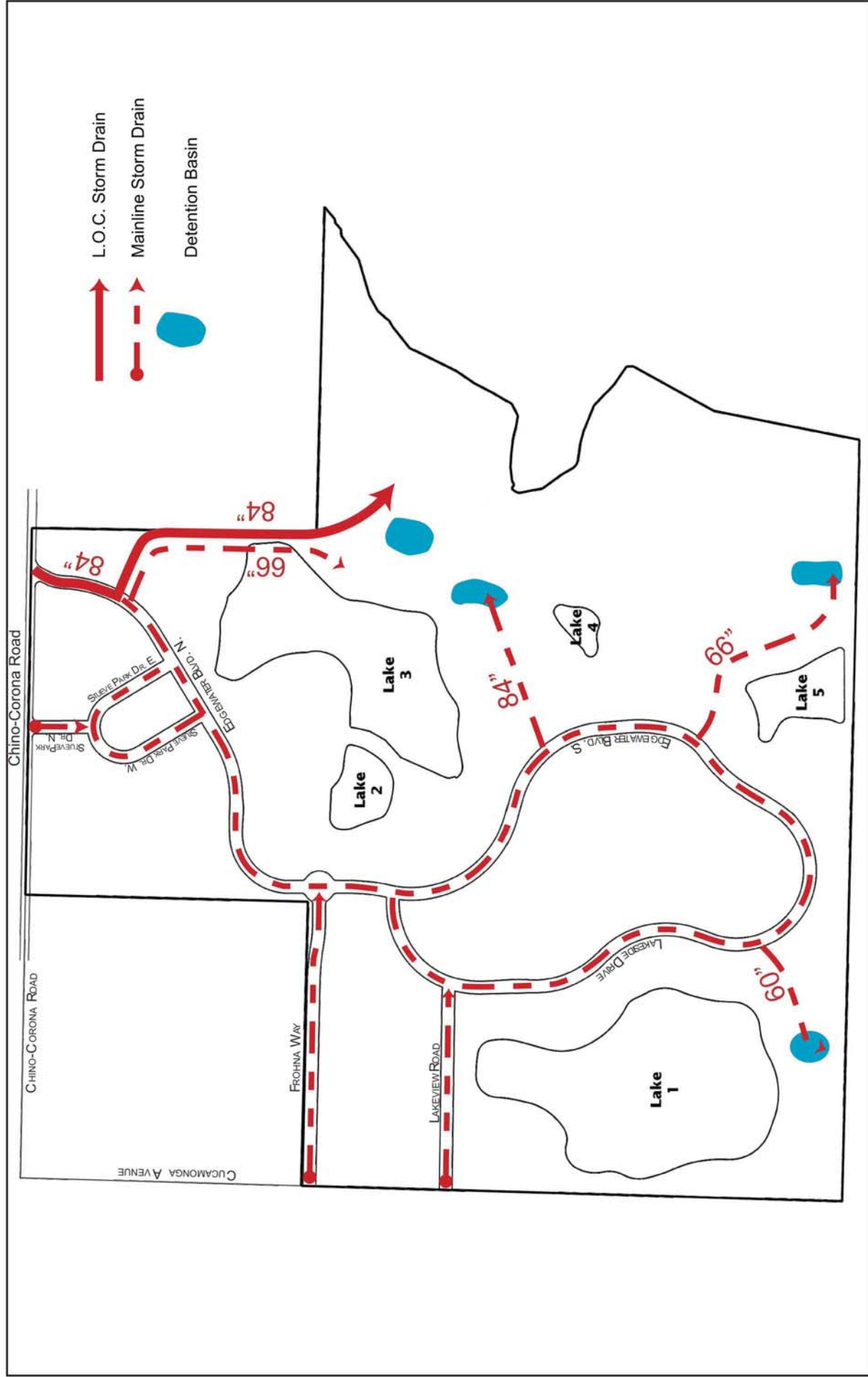
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Exhibit 7-6 Preferred Plan Alternative Sanitary Sewer Plan

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Source: PBR, May 2008.



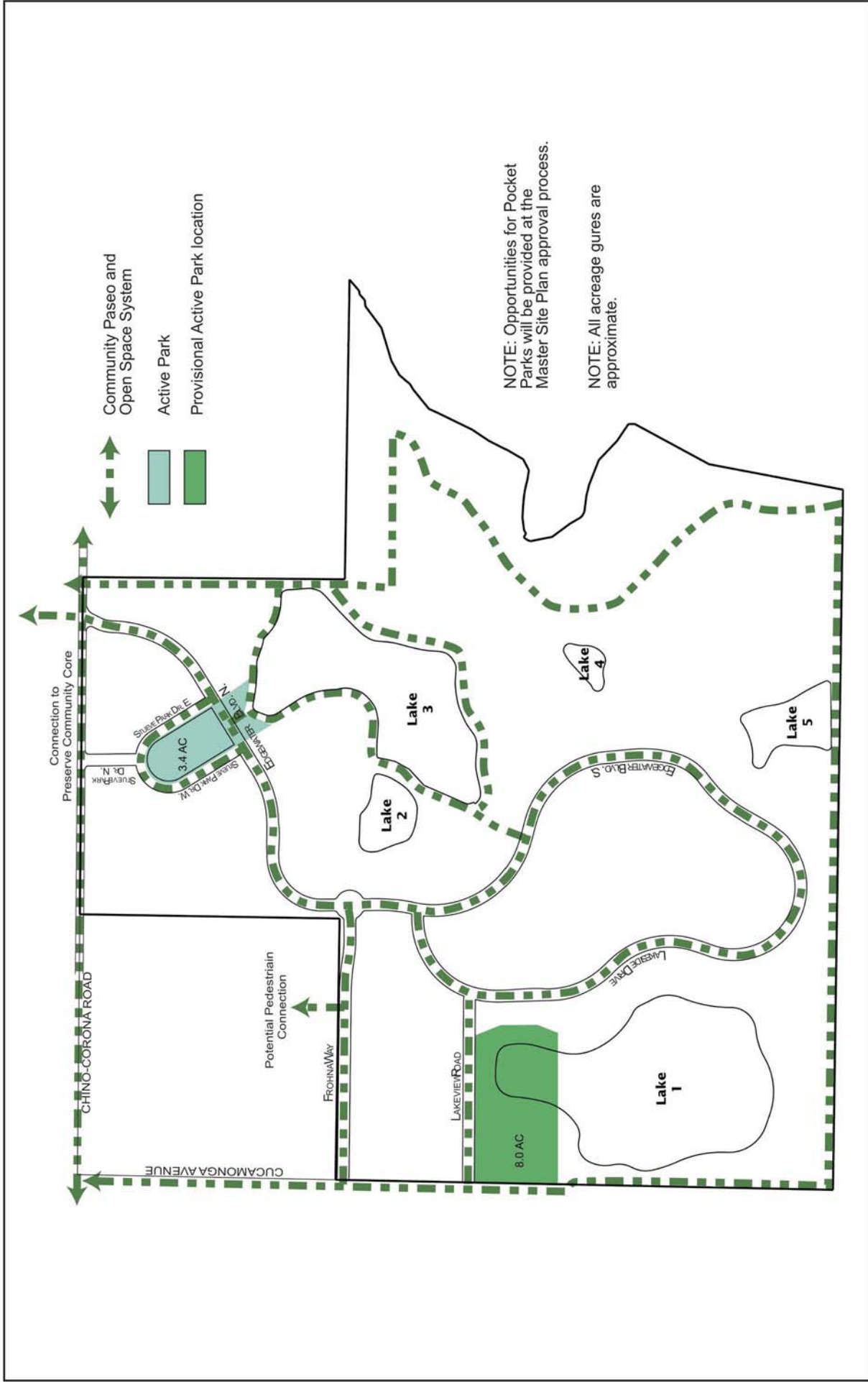
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Exhibit 7-7 Preferred Plan Alternative Storm Drain Plan

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Source: Bureau Veritas North America Inc.; Huitt-Zollars Inc.; PBR; November 2008.



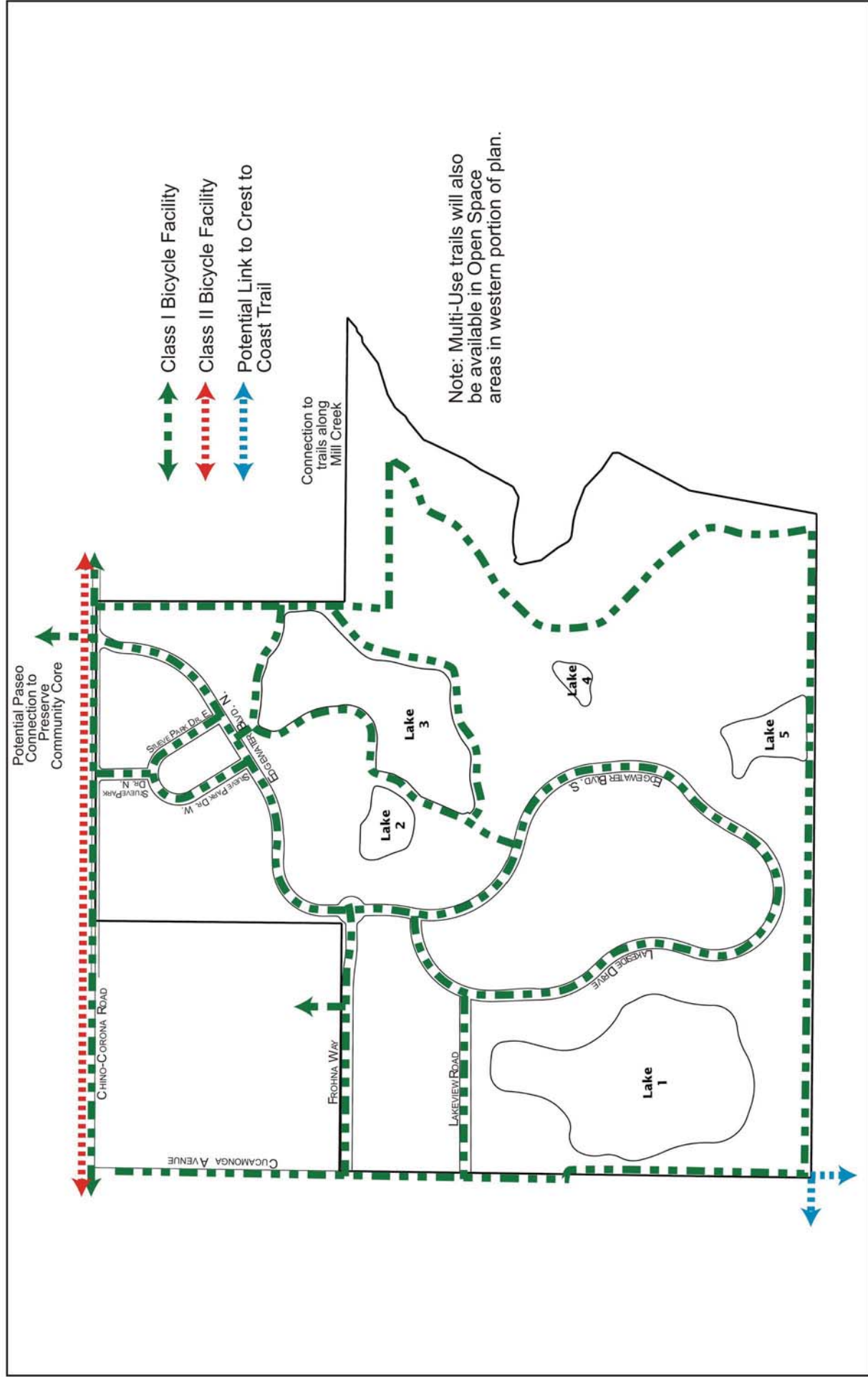
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Exhibit 7-8 Preferred Plan Alternative Conceptual Parks and Schools Plan

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Source: PBR, May 2008.



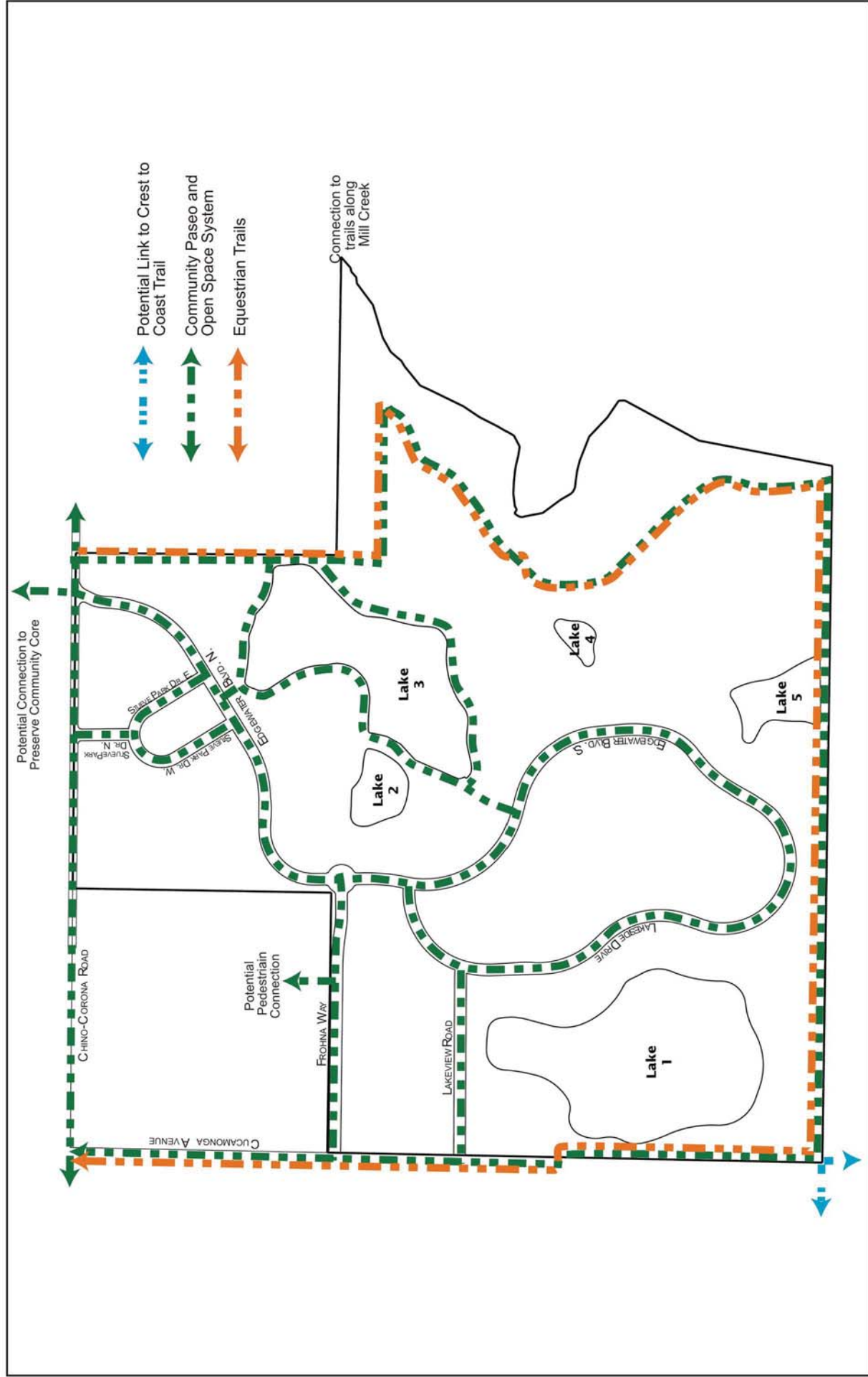
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Exhibit 7-9 Preferred Plan Alternative Bicycle Plan

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Source: PBR, May 2008.



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Exhibit 7-10 Preferred Plan Alternative Equestrian Plan

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7.2 - Impact Analysis

The following analysis contains a comparison of environmental impacts by individual issue area for the proposed Project, as identified in Section 4 of this Draft EIR, and the Preferred Plan Alternative (PPA).

7.2.1 - Aesthetics

The Project site contains an active dairy operation and supporting rural residences. Views of the site are primarily from Chino Corona Road of the northernmost portion of the site where the dairy facilities and residences are located. Implementation of the PPA would remove existing dairy operations and establish a water-oriented residential community, resulting in alteration of the physical characteristics and visual character of the site similar to the proposed Project. Implementation of the PPA will introduce a substantial amount of light and glare, similar to the proposed Project. However, by incorporating mitigation for light and glare, and by adherence to regulations governing lighting, landscaping, and building design, the PPA would have similar, less than significant aesthetic visual, light and glare impacts as those associated with the proposed Project (see Table 7-2).

Table 7-2: Aesthetic Impacts

Impact	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Aesthetics		
Scenic Vista	Less than Significant.	Less than Significant.
Scenic Resources	Less than Significant.	Less than Significant.
Existing Visual Character	Less than Significant.	Less than Significant.
Light or Glare	Less than Significant.	Less than Significant.

7.2.2 - Agricultural Resources

Based on data from the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, the Project site contains approximately 150.3 acres of Prime Farmland and 20.1 acres of Unique Farmland. Both the proposed Project and the PPA will result in the conversion of Prime Farmland and Unique Farmland to non-agricultural uses, a significant impact. In addition to direct impacts on agricultural uses within the Project site, implementation of both the proposed Project and the PPA would result in changes in the existing environment that could have an effect on adjacent agricultural land. Residential developments, such as the proposed Project and the PPA, are generally not compatible with agricultural uses. As development continues to encroach on agricultural lands, increased restrictions on agricultural uses, water expenses, and traffic cause agricultural uses to be less economically feasible.

Existing land use designations for the Project site designate 197.14 acres for Agricultural and Open Space Natural (AG/OS-N). Assessor Parcel Number (APN) 105-721-104, approximately 36 acres in size, was previously under Williamson Act contract, but the owner of these lands filed a notice of

intent not to renew the contract. The non-renewed contract on this parcel is set to expire on December 31, 2015. Therefore, similar to the proposed Project, the PPA would not conflict with an existing Williamson Act contract. Table 7-3 lists agricultural resource impacts for the proposed Project and for the PPA.

Table 7-3: Agricultural Resource Impacts

Impact	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Agricultural Resources		
Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance for Non-Agricultural Use	Significant.	Significant.
Conflict with Existing Zoning for Agricultural Use or a Williamson Act Contract	Significant.	Significant.
Changes to Existing Environment resulting in Conversion of Farmland to Non-Agricultural Use	Significant.	Significant.

7.2.3 - Air Quality

Table 7-4 lists air quality impacts for the proposed Project and for the PPA. The text following the table provides analysis supporting the level of significance after mitigation for the PPA and quantitatively compares air quality impacts associated with the PPA to the air quality impacts of the proposed Project.

Table 7-4: Air Quality Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Air Quality		
Construction-Related	Significant.	Significant.
Operation-Related	Significant.	Significant (thresholds still exceeded, but by lesser amounts than Proposed Project).
Carbon Monoxide Concentrations	Less than Significant.	Less than Significant.
Air Quality Plan	Significant.	Significant.
Air Quality Standards/Violations	Significant.	Significant.
Cumulative Criteria Pollutants	Significant.	Significant.
Sensitive Receptors	Significant.	Significant.
Odors	Significant.	Significant.
Cumulative	Significant.	Significant.

Construction-Related Impacts

Demolition. The same structures would be demolished for the PPA as for the Project. Therefore, impacts related to demolition would be the same. Emissions during demolition are not anticipated to exceed the regional significance thresholds.

Grading. The Project applicant indicated that the PPA cut and fill numbers would be approximately 47,000 cubic yards less than the Project. This would result in a slightly decreased impact, but it is anticipated that the impacts for the PPA during grading would be essentially the same as for the Project. Fugitive dust emissions during grading were estimated by assuming a set number of scraper hours per day, which would be the same for the PPA as for the Project. Therefore, for the PPA, emissions of NO_x, PM₁₀, and PM_{2.5} during grading would exceed the regional significance thresholds. After mitigation, concentrations of PM₁₀ at the nearby sensitive receptor would exceed the localized significance threshold for the PPA.

Building. Impacts during building (construction of the structures, painting, asphalt paving, etc.) would be the same for the PPA as for the Project. With mitigation, emissions during building are not anticipated to exceed the regional significance thresholds.

Summary. Regional and localized impacts from construction (demolition, grading, building, etc.) of the PPA would be the same as construction of the Project. The same mitigation identified for the Project would be required for the PPA.

Operation-Related Impacts

The PPA Sensitivity Analysis and Fair Share Calculation Supplemental Analysis for traffic prepared by Urban Crossroads (March 2008) indicated that the PPA would result in a 5.2 percent reduction in daily traffic compared with the proposed Project. Emissions during operation for the PPA were compared with emissions for the proposed Project and are shown in Table 7-5, Table 7-6, and Table 7-7. Averaging the percentage change in emissions in Table 7-5, the PPA would result in an average reduction of 5.3 percent in summer at buildout (unmitigated) as compared with the proposed Project. Averaging the percentage change in emissions in Table 7-6, the PPA would result in a 3.2 percent reduction in winter at buildout (unmitigated) compared with the proposed Project. With mitigation prohibiting wood burning stoves and fireplaces, the PPA would result in an average 5.2 percent reduction in winter at buildout compared with the Project (Table 7-7).

Table 7-5: Operational Emissions for PPA (Buildout, Summer, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	52.3	67.4	654.2	1.3	216.5	42.1
Natural gas	1.0	13.4	5.8	0.0	<0.1	<0.1

Table 7-5 (Cont.): Operational Emissions for PPA (Buildout, Summer, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Landscape	4.0	0.3	25.7	0.0	0.1	0.1
Consumer products	55.1	—	—	—	—	—
Architectural coatings	2.8	—	—	—	—	—
PPA Total	115.2	81.1	685.7	1.3	216.6	42.2
Project Total	119.1	85.6	725.7	1.4	228.6	44.5
Delta (PPA - Project)	-3.9	-4.5	-40	-0.1	-12	-2.3
% Delta	-3.3%	-5.3%	-5.5%	-7.1%	-5.2%	-5.2%
Significance Threshold	55	55	550	150	150	55
PPA Significant Impact?	Yes	Yes	Yes	No	Yes	No
Notes: VOC = volatile organic compounds NO _x = nitric oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: URBEMIS2007 output, Appendix M.						

Table 7-6: Operational Emissions for PPA (Buildout, Winter, Unmitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	58.1	81.3	602.7	1.1	216.5	42.1
Natural gas	1.0	13.4	5.8	0.0	<0.1	<0.1
Hearth	168.3	13.7	466.4	1.3	72.3	69.6
Consumer products	55.1	—	—	—	—	—
Architectural coatings	2.8	—	—	—	—	—
PPA Total	285.3	108.4	1074.9	2.4	288.8	111.7
Project Total	288.7	114	1108.7	2.5	300.9	114.1
Delta (PPA - Project)	-3.4	-5.6	-33.8	-0.1	-12.1	-2.4
% Delta	-1.2%	-4.9%	-3.0%	-4.0%	-4.0%	-2.1%
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	Yes
Notes: VOC = volatile organic compounds NO _x = nitric oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: URBEMIS2007 output, Appendix M.						

Table 7-7: Operational Emissions for PPA (Buildout, Winter, Mitigated)

Source	Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile vehicles	58.1	81.3	602.7	1.1	216.5	42.1
Natural gas	1.0	13.4	5.8	0.0	<0.1	<0.1
Hearth	0.4	7.1	3.0	0.1	0.6	0.6
Consumer products	55.1	—	—	—	—	—
Architectural coatings	2.8	—	—	—	—	—
PPA Total	117.4	101.8	611.5	1.2	217.1	42.7
Project Total	120.8	107.4	645.3	1.3	229.1	45
Delta (PPA - Project)	-3.4	-5.6	-33.8	-0.1	-12	-2.3
% Delta	-2.8%	-5.2%	-5.2%	-7.7%	-5.2%	-5.1%
Significance Threshold	55	55	550	150	150	55
Significant Impact?	Yes	Yes	Yes	No	Yes	No
Notes: VOC = volatile organic compounds NO _x = nitric oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter Source: URBEMIS2007 output, Appendix M.						

Summary. The PPA would still exceed the same thresholds as were exceeded for the Project, although by lesser amounts. Impact remains significant.

Carbon Monoxide Concentrations

The traffic analysis for the PPA assessed five intersections. Two of those intersections are predicted to operate at a level of service (LOS) of D or worse at the interim year (2019)

- Cucamonga Avenue at Chino Corona Road (Intersection #23); and
- Main Street/North East Site Access at Chino Corona Road (Intersection #30).

The two intersections were assessed in the proposed Project traffic analysis. The estimated carbon monoxide (CO) concentrations at all intersections were less than the CO ambient air quality standards and, therefore, resulted in a less than significant impact. Comparison of the LOS for the two intersections listed above indicates that the proposed Project has a greater LOS compared with the PPA (Table 3 in the PPA traffic analysis and Table 5-2 in the Project traffic analysis, see Appendix M and J, respectively). Review of the intersection traffic volumes for the PPA (Exhibits M and N in the PPA traffic analysis) indicate that they would be about the same as the proposed Project (Exhibits 5-C and 5-D in the Project traffic analysis, see Appendix J). Intersection #23 would have 1,144 vehicles in the peak hour for the Project and 1,147 vehicles in the PPA traffic analysis. Intersection #30 would have 967 vehicles for the proposed Project and 951 for the PPA. The volumes are essentially the same.

Summary. Because the volumes are essentially the same, it is anticipated that the PPA would result in the same CO intersection impacts as the proposed Project - less than significant.

Air Quality Plan

It is anticipated that the PPA would have the same significant level of impact in terms of conflicting or obstructing the current Air Quality Management Plan because the PPA would exceed the same regional thresholds as the Project.

Summary. Both the proposed Project and PPA would have a significant impact after mitigation on the Air Quality Plan.

Air Quality Standards / Violations

The determination of whether or not a project could violate an air quality standard or contribute substantially to an existing or projected air quality violation is determined using two methods: the localized significance threshold analysis, which was discussed previously in this Section 7 within the “Construction-Related Impacts” subsection, and the CO hotspot analysis, which was discussed previously within the “Carbon Monoxide Concentrations” subsection.

Regarding localized impacts during construction, the PPA would have the same level of impact as the Project. It was determined that after mitigation, during grading, the Project would result in significant localized PM₁₀ impacts at the nearest sensitive receptor. Therefore, the Project could result in an exceedance of the PM₁₀ ambient air quality standard. The PPA would have the same level of impact.

Regarding the CO hotspot analysis, the impacts are the same for the PPA as the Project, less than significant.

Summary. Both the proposed Project and PPA would have a significant impact after mitigation on Air Quality Standards/Violations because both would result in an exceedance of the PM₁₀ ambient air quality standard.

Cumulative Criteria Pollutants

The following approach is utilized to assess cumulative air quality impacts:

1. Consistency with the regional thresholds for nonattainment pollutants;
2. Project consistency with existing air quality plans; and
3. Assessment of the cumulative health effects of the pollutants.

Regarding consistency with the construction and operational regional thresholds, impacts would be the same for the PPA as for the proposed Project - significant.

Regarding consistency with the existing air quality plans, the Project would have the same impact as the PPA - significant.

During construction and operation, the PPA would cumulatively contribute to ozone concentrations and, therefore, would cumulatively contribute to health effects from ozone exposure in the South Coast Air Basin, a significant impact. During construction, the PPA would contribute to a cumulatively significant health impact from emissions of PM₁₀, a significant impact.

Summary: Both the proposed Project and PPA would result in a significant air quality impact for cumulative criteria pollutants.

Sensitive Receptors

During construction, the PPA would have the same impact as the proposed Project: direct health impacts would be significant at the nearest sensitive receptor.

During operation, the PPA would have the same impact as the proposed Project: health impacts to nearby sensitive receptors would be less than significant.

Summary: Both the proposed Project and PPA would result in a significant air quality impact for sensitive receptors during construction.

Odors

There are existing dairy operations (east and west of the Project site) that will remain even if the Project site is developed for residential and related land uses. An equestrian facility located to the east of the Project site would also remain. Odorous compounds from the dairies include ammonia and hydrogen sulfide. The impact of the odors from the nearby dairies to the proposed Project is significant. The impact to PPA residents from nearby odors is also anticipated to be significant.

Summary: Both the proposed Project and PPA would experience significant odor impacts due to the establishment of sensitive uses (residential, school) within proximity to dairy and equestrian facilities.

Cumulative

Summary. As discussed in the previous subsection entitled “Cumulative Criteria Pollutants”, both the proposed Project and the PPA would result in a significant cumulative impact from criteria pollutants ozone and particulate matter.

7.2.4 - Biological Resources

Table 7-8 lists biological resource impacts for the proposed Project and for the PPA. Table 7-9 lists potential impacts to special-status wildlife species for both the proposed Project and the PPA. Four of the seven identified impacts for both plans in Table 7-8 are either no impact or less than significant with mitigation. The three remaining impacts are significant even with mitigation for the proposed Project and the PPA. The text after Table 7-8 explains the similarities and/or differences in impacts between the proposed Project and the PPA.

Table 7-8: Biological Resource Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Effect on Species	Less than Significant.	Less than Significant.
Sensitive Natural Communities	No Impact.	No Impact.
Federally Protected Wetlands	No Impact.	No Impact.
Wildlife Corridors and Nursery Sites	Less than Significant.	Less than Significant.
Local Policies or Ordinances Protecting Biological Resources	Significant.	Significant.
Conservation Plans	Significant.	Significant.
Cumulative	Significant.	Significant.

The PPA shares the same grading limit along Mill Creek as the proposed Project. All impacts to biological resources would be similar between the proposed Project and the PPA. There is no net gain or loss of adverse or beneficial impacts to biological resources when the Preferred Plan is compared to the proposed Project. In general, no impacts to sensitive plants will occur under either the proposed Project or the PPA due to a lack of suitable habitat. There are also no jurisdictional waters that will be impacted by either development plan. Implementation of both the proposed Project and the PPA will conflict with the approved Resource Management Plan and The Preserve Specific Plan EIR mitigation measures designed to limit development to above The Preserve EIR 566' elevation line.

Table 7-9: Potential Impacts to Special-Status Wildlife Species

Species	Status ⁽¹⁾	Potential Impacts
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE/SE	Potential short-term indirect impacts from construction adjacent to riparian habitat. Potential long-term indirect impacts (edge effects) from development adjacent to a natural area. Will permanently modify 33.9 acres of critical habitat. Beneficial impacts include conservation of 18.4 acres of occupied habitat and creation of 2.1 acres of potential foraging and nesting habitat.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/SE	No impacts.
White-tailed kite (<i>Elanus leucurus</i>)	SFP	Low likelihood of short-term and long-term indirect impacts to nesting individuals. Suitable foraging habitat will be removed. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat.
Two-striped garter snake (<i>Thamnophis hammondi</i>)	CSC	No impacts as riparian habitat within Mill Creek will be avoided.
Golden eagle (<i>Aquila chrysaetos</i>)	CSC wintering	Negative impacts to foraging habitat. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat.
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	CSC nesting	No impacts as they are not known to nest on site.
Great egret (<i>Ardea alba</i>)	CSC nesting	No impacts as they are not known to nest on site.
Great blue heron (<i>Ardea herodias</i>)	CSC nesting	No impacts as they are not known to nest on site.
Snowy egret (<i>Egretta thula</i>)	CSC nesting	No impacts as they are not known to nest on site.
Black-crowned night heron (<i>Nycticorax nycticorax</i>)	CSC nesting	No impacts as they are not known to nest on site.
White-faced ibis (<i>Plegadis chihi</i>)	CSC nesting	No impacts as they are not known to nest on site.
Long-eared owl (<i>Asio otus</i>)	CSC	Low likelihood of short-term and long-term indirect impacts to nesting individuals. Suitable foraging habitat will be removed. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat. Creation of 2.1 acres of lakeshore willow and marsh habitat may provide suitable foraging and roosting opportunities.

Table 7-9 (Cont.): Potential Impacts to Special-Status Wildlife Species

Species	Status ⁽¹⁾	Potential Impacts
Ferruginous hawk (<i>Buteo regalis</i>)	CSC wintering	Negative impacts to foraging habitat. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat.
Burrowing owl (<i>Athene cunicularia hypugaea</i>)	CSC	Five to seven nesting territories and approximately 233 acres of foraging habitat will be permanently impacted. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat and construction of artificial nest burrows.
Sharp-shinned hawk (<i>Accipiter striatus</i>)	CSC nesting	No impacts as they are not known to nest on site.
Northern harrier (<i>Circus cyaneus</i>)	CSC nesting	Impacts to nesting individuals are considered less than significant as they have not been confirmed to nest on site.
Prairie falcon (<i>Falco mexicanus</i>)	CSC wintering	Negative impacts to confirmed wintering individuals includes loss of foraging habitat. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat. Creation of 2.1 acres of lakeshore willow and marsh habitat may provide suitable foraging and opportunities.
Merlin (<i>Falco columbarius</i>)	CSC wintering	Negative impacts to confirmed wintering individuals includes loss of foraging habitat. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of raptor foraging habitat. Creation of 2.1 acres of lakeshore willow and marsh habitat may provide suitable foraging and opportunities.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSC	Low likelihood of short-term and long-term indirect impacts to nesting individuals. Suitable foraging habitat will be removed. Beneficial impact includes creation and conservation of 19.7 acres of grassland habitat. Will also create three detention basins with approximately 10.8 acres of foraging habitat. Creation of 2.1 acres of lakeshore willow and marsh habitat may provide suitable foraging and nesting opportunities.
California horned lark (<i>Eremophila alpestris actia</i>)	CSC	Impacts to potential foraging individuals are considered less than significant due to the relative abundance of this species within the region. Potential impacts to nesting individuals.
Yellow-breasted chat (<i>Icteria virens</i>)	CSC	Direct impacts to nesting individuals are less than significant as riparian habitat associated with Mill Creek will be avoided. Potential indirect impacts to nesting individuals. Beneficial impacts include conservation of 18.4 acres of occupied habitat and creation of 2.1 acres of potential foraging and nesting habitat.

Table 7-9 (Cont.): Potential Impacts to Special-Status Wildlife Species

Species	Status ⁽¹⁾	Potential Impacts
Yellow warbler (<i>Dendroica petechia</i>)	CSC	Direct impacts to nesting individuals are less than significant as riparian habitat associated with Mill Creek will be avoided. Potential indirect impacts to nesting individuals. Beneficial impacts include conservation of 18.4 acres of occupied habitat and creation of 2.1 acres of potential foraging and nesting habitat.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	CSC	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.
California mastiff bat (<i>Eumops perotis californicus</i>)	CSC	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.
Yuma myotis (<i>Myotis yumanensis</i>)	CSC	Impacts are considered less than significant as roost areas do not overlap the development footprint. Foraging habitat for bats will remain post-construction over the lakes and other open space areas.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	CSC	Impacts are considered less than significant as sage scrub habitat is absent from the Project site and a substantial population is not expected to occur.
Western spadefoot (<i>Scaphiopus hammondi</i>)	CSC	Project would negatively impact any western spadefoot on the Project site. However, their potential to occur is considered low and it will not, therefore, result in a significant impact.
Notes: ⁽¹⁾ Status Legend:		
U.S. Fish and Wildlife Service FE Federal Endangered FT Federal Threatened California Department of Fish and Game SE State Endangered CSC California Special Concern species SFP Fully Protected		

7.2.5 - Cultural Resources

Impacts on cultural resources were evaluated as part of a Phase I Cultural Survey Report and Paleontological Resource Assessment, and a Phase II Cultural Resources Testing and Evaluation Report, both prepared by Michael Brandman Associates (2007). Table 7-10 lists cultural resource impacts for the proposed Project and the PPA. Both the proposed Project and the PPA would have less than significant impacts on cultural resources after mitigation.

Table 7-10: Cultural Resource Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Cultural Resources	Less than Significant.	Less than Significant.
Paleontological Resources and Geologic Features	Less than Significant.	Less than Significant.
Human Remains	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

7.2.6 - Geology and Soils

A Report of Phase 2 Geotechnical Investigation was prepared for the Project site by GMU Geotechnical, Incorporated (March 2007). GMU found the Project site to be suitable for development according to the proposed Project Plan based on adherence to geotechnical recommendations and criteria provided in the Geotechnical Investigation. Development according to the PPA can be assumed to be similarly acceptable from a geotechnical standpoint due to the similarity between the two plans in terms of land uses and types of structures proposed. Table 7-11 lists geology and soils impacts for the proposed Project and the PPA. Both the proposed Project and the PPA would have less than significant impacts on geology and soils after mitigation.

Table 7-11: Geology and Soils Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Exposure of People or Structures to Potential Substantial Adverse Effects	Less than Significant.	Less than Significant.
Soil Erosion or Loss of Topsoil	Less than Significant.	Less than Significant.
Unstable Geologic Unit or Soil	Less than Significant.	Less than Significant.
Expansive Soil	Less than Significant.	Less than Significant.

7.2.7 - Hazards and Hazardous Materials

Two Phase I Environmental Site Assessments were prepared for the Project site (Laguna Geosciences, Inc., February 2004; and URS Corporation, April 2006). An additional hazardous materials database search was conducted in October 2008. All referenced hazards and hazardous

materials investigations have found the Project site to be suitable for development according to the proposed Project Plan based on adherence to recommendations and criteria provided in the hazards and hazardous materials technical studies. Development according to the PPA can be assumed to be similarly acceptable from a hazards and hazardous materials standpoint due to the similarity between the two plans in terms of land uses and types of structures proposed. Table 7-12 lists hazards and hazardous materials impacts for the proposed Project and the PPA. Both the proposed Project and the PPA would have less than significant hazards and hazardous materials impacts after mitigation.

Table 7-12: Hazards and Hazardous Materials Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Routine Transport, Use or Disposal of Hazardous Materials	Less than Significant.	Less than Significant.
Accident Conditions and Potential Release of Hazardous Materials	Less than Significant.	Less than Significant.
Schools	Less than Significant.	Less than Significant.
Hazardous Materials Site Listing	No Impact.	No Impact.
Airports	Less than Significant.	Less than Significant.
Private Airstrip	Less than Significant.	Less than Significant.
Emergency Plans	Less than Significant.	Less than Significant.
Wildland Fires	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

7.2.8 - Hydrology and Water Quality

Preliminary Hydrology and Hydraulic Calculations and a Preliminary Water Quality Management Plan have been prepared for the proposed Project, both by Huitt-Zollars (January 2008). Table 7-13 lists hydrology and water quality impacts for the proposed Project and the PPA. Both the proposed Project and the PPA would have less than significant hydrology and water quality impacts based on design of the proposed Project and the PPA, and adherence to all applicable federal, State, and local regulations and permit conditions governing hydrology and water quality. No additional mitigation is necessary to achieve less than significant impacts on hydrology and water quality.

Table 7-13: Hydrology and Water Quality Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Water Quality Standards and Requirements	Less than Significant.	Less than Significant.
Groundwater Supplies and Recharge	Less than Significant.	Less than Significant.

Table 7-13 (Cont.): Hydrology and Water Quality Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Hydrology and Water Quality		
Drainage Pattern: Erosion and Siltation	Less than Significant.	Less than Significant.
Drainage Pattern: Flooding	Less than Significant.	Less than Significant.
Runoff Water and Drainage Systems	Less than Significant.	Less than Significant.
Flood Hazard Area and Flooding	Less than Significant.	Less than Significant.
Seiche, Tsunami, or Mudflow	No Impact.	No Impact.
Cumulative	Less than Significant.	Less than Significant.

7.2.9 - Land Use and Planning

The Preserve Specific Plan confined developed uses to above the 566' elevation line as plotted in The Preserve Specific Plan EIR. Implementation of the proposed Project and the PPA will result in development of the Project site for low-, medium- and high-density residential, church/school, and museum/retail uses. This would require an amendment to The Preserve Specific Plan and Resource Management Plan, and result in the loss of approximately 5 percent of the land designated for open space or agricultural use below the 566' elevation line as currently plotted within The Preserve Specific Plan area under both the Proposed Project and the PPA. Under the PPA, site planning on the northern portion of the Project site has been designed to reflect the grid pattern inherent in The Preserve Specific Plan. Extension of the Community Paseo system and open space hierarchy also connects the Edgewater site to the Community Core. Table 7-14 lists land use and planning impacts for the proposed Project and the PPA.

Table 7-14: Land Use and Planning Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Land Use and Planning		
Physical Division of an Established Community	Less than Significant.	Less than Significant.
Conflict with Applicable Plans, Policies, or Regulations	Significant.	Significant. (But at a reduced level since the PPA is more consistent with Smart Growth policies).
Conflict with Conservation Plans	Significant.	Significant.

7.2.10 - Mineral Resources

There are no known mineral resources on the Project site or within The Preserve. Table 7-15 identifies the lack of mineral resource impacts for the proposed Project and the PPA. Both the proposed Project and the PPA would have no impact on mineral resources, either at the project or cumulative level.

Table 7-15: Mineral Resource Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Mineral Resources		
Loss of Mineral Resources	No Impact.	No Impact.
Cumulative	No Impact.	No Impact.

7.2.11 - Noise

Descriptions and analysis in this section are based on information contained in the Traffic Impact Analysis for the proposed Project, prepared in November 2007 by Urban Crossroads, Inc. (see Appendix J), and in the supplemental letter report prepared in March 2008 by Urban Crossroads, Inc. for the Preferred Plan Alternative (see Appendix M). Appendix M also contains noise modeling output to support this PPA technical noise analysis.

The following text provides analysis supporting the level of significance after mitigation for the PPA and quantitatively compares noise impacts associated with the PPA to the noise impacts of the proposed Project.

Existing Noise Levels - PPA

Existing noise levels for the Preferred Plan Alternative are identical to those for the proposed Project, as identified in Section 4.11, Noise of this Draft EIR.

Vehicular Traffic Noise Levels - PPA

Future peak hour traffic noise levels were modeled using the Federal Highway Administration Noise Prediction Model (FHWA-RD-77-108). The model calculates noise levels for varying traffic volumes and speeds. Noise model output worksheets for existing conditions, year 2019 with and without the PPA Project, and year 2030 with and without the PPA Project are included as Appendix M. Modeling was conducted using data from the traffic studies prepared by Urban Crossroads, Inc.

Airport Noise Levels and Other Noise Levels - PPA

Airport noise levels for the PPA are identical to those for the proposed Project, as identified in Section 4.11, Noise of this Draft EIR. Noise from other sources, including existing dairy facilities, a hunting club, paint ball facility, a model airplane facility, and two state correctional institutions in the Project area are also identical to those for the proposed Project, as identified in Section 4.11, Noise of this Draft EIR.

Sensitive Receptors - PPA

Sensitive receptors for the PPA are identical to those for the proposed Project, as identified in Section 4.11, Noise of this Draft EIR (Table 4.11-1).

Impacts and Mitigation Measures - PPA

Noise Levels in Excess of Standards

Noise levels in the Project area would be influenced by PPA construction activity in the short term, and by traffic, agricultural, recreational and airport noise in the long term.

Short-term Noise

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the Preferred Plan Alternative would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. City of Chino Municipal Code Section 9.40.060D exempts construction activity from noise standards granted they are conducted between 7:00 a.m. and 8:00 p.m. Monday through Saturday. However, it also states that noise measured on residential property and any vibration created shall not endanger the public health, welfare and safety. Therefore, although there are no construction standards for noise generation, all construction activity would be conducted in accordance with the City of Chino Municipal Code, and, therefore, construction noise associated with the PPA would not expose persons to or generate excessive noise levels.

Phasing for the PPA can be assumed to mirror phasing for the proposed Project. The opening year for Phase 1 of the PPA would be expected to be 2010 to 2011. Subsequent development would be expected to occur with Phase 2 in 2012 to 2014, and Phase 3 in 2015 to 2019. Therefore, residents in the earlier phases of the PPA would be impacted by construction noise from activity associated with subsequent phases.

Long-term Noise

Residential exterior noise levels must not exceed 75 dBA CNEL per the Chino Municipal Code noise standards. Based on the nature of the nearby roadways, the relatively low noise levels at the nearby dairies and recreational facilities, and Project site location outside the noise contours for the Chino Airport, these noise sources would not expose persons to or generate noise levels in excess of standards.

The land use compatibility guidelines in Exhibit 4.11-2 in Section 4.11, Noise of this Draft EIR establish the acceptable range of ambient noise levels for residential developments within the City of Chino. Exterior noise levels are normally compatible at 70 dB CNEL for residential. The highest future noise level predicted in association with the proposed Project is at the intersection of Euclid Avenue at Edison Avenue (approximately 5 miles north of the Project site), with a noise level of 64.0 dB in 2030 for AM peak hour conditions with the Project. The highest future noise intersection for the Preferred Plan Alternative would be 55.4 dB at Chino Corona Road and Cucamonga Avenue, well below the standards. Therefore, under the PPA, all intersections would operate at noise levels below the normally compatible standard of 70 dB for residences and would not exceed City of Chino standards. Impacts would be less than significant for all future residents.

Excessive Groundborne Vibration

Groundborne vibration in the Project area would be influenced by PPA construction activity in the short term, and by traffic noise in the long term.

Construction Vibration

Construction activities can produce vibration that may be felt by adjacent uses. PPA construction is not expected to require the use of equipment such as jackhammers and pile drivers, which are known to generate substantial construction vibration levels. The primary sources of vibration during construction would be from bulldozers, backhoes, crawler tractors, and scrapers. A vibratory roller would produce the greatest amount of vibration on the Project site, with a 0.210 PPV at 25 feet. The nearest existing sensitive receptors to the Project site are rural residences associated with existing dairy facilities located approximately 75 feet to the northeast and to the west of the Project site, and the rural residences located approximately 100 feet to the west of the Project site. New sensitive receptors would be those residents that move into the residential units of the PPA. PPA phasing can be expected to mirror phasing for the proposed Project. The opening year for Phase 1 of the PPA would be expected to be 2010. Subsequent development would be expected to occur with Phase 2 in 2012 to 2014, and Phase 3 in 2015 to 2019. Therefore, residents in earlier phases could be impacted by construction vibration from activity associated with subsequent phases. However, based on the distance between phases, no construction would take place that would result in vibration levels exceeding the structural damage threshold of 0.3 PPV.

Noise generated from PPA construction activities can be assumed to generally reflect noise generated during construction under the proposed Project. This includes both single vibratory events as well as periods in which multiple or continuous vibration would occur. Construction impacts for both plans were assessed using the continuous/frequent intermittent structural damage vibration threshold of 0.3 PPV. The nearest construction activities would be approximately 75 feet from the rural residences to the west of the Project site, 100 feet from the other rural residences to the west of the Project site, and 125 feet from the rural residences to the northeast of the Project (based on open space proposed along the northern Project boundary). Evaluation shows the estimated construction vibration levels at the residences to be 0.042 PPV as the maximum vibration that the nearest residential receptor would be expected to experience. This vibration level is below the 0.3 PPV significance level for potential structural damage. Therefore, construction-related vibration from the PPA would be less than significant.

Operational Vibration

The Preferred Plan Alternative would not develop any commercial facilities and would not expect to be influenced by increased vibration impacts from the operation of tractor-trailers on the Project site. Therefore, the operational vibration from the PPA would be less than significant.

Permanent Increase in Ambient Noise Levels

A permanent increase in noise levels in the Project area would be influenced by airport and traffic noise at the Project site, along with noise from agricultural and animal activity at the surrounding dairies, and recreational activity at various other nearby facilities. The Preferred Plan Alternative would not result in an increase in noise levels from these sources with the exception of traffic.

Airport Noise

The Chino Airport is located approximately 1.5 miles north of the Project site. Based on the distance from the airport, aircraft noises constitute occasional short-term noise intrusions at the Project site, but the expected contribution of aircraft flight noise averaged over a 24-hour CNEL exposure period would be insignificant at the Project site. Exhibit 4.11-1 in Section 4.11, Noise of this Draft EIR shows that the Project site under either the proposed plan or the Preferred Plan Alternative would be outside of the 65 dBA noise contours. Although aircraft overflights would be audible by future residents, these single-noise events would not exceed 65 dBA and the noise levels would not significantly impact the residents of the Project site. Because PPA residents would not be exposed to excessive noise levels associated with overflights, impacts would be less than significant.

Other Noise

Other existing noise sources in the Project area include agricultural and animal activity at the surrounding dairies and recreational activity at various other nearby facilities, but noise from these sources would not expose the future residents of the Preferred Plan Alternative to substantial noise levels, and therefore impacts would be less than significant. Operational noise from the Preferred Plan Alternative would be typical of residential areas, including children playing, pets, auto repair, and HVAC units. None of these sources would expose future residents of the Project site under the Preferred Plan Alternative to substantial noise levels, and therefore impacts would be less than significant.

Traffic Noise

Long-term noise impacts would result from vehicle traffic associated with the Preferred Plan Alternative. City of Chino noise standards are established in the City of Chino General Plan Noise Element (1995), Table VI-4, similar to the State of California Office of Noise Control model element guidelines, which most standards are now based on. Exhibit 4.11-2 in Section 4.11, Noise of this Draft EIR shows the City of Chino's Land Use Compatibility Matrix.

Section 9.40 of the Chino Municipal Code serves as the City's noise ordinance. Section 9.40.040, Exterior Noise Standards, contains the allowable levels for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods for residential properties based on the length the noise level is sustained.

As shown in Exhibit 4.11-2 in Section 4.11, Noise of this Draft EIR, the land use compatibility matrix provides the acceptable range of ambient noise levels for residential developments within the City of Chino. Exterior noise levels are normally compatible at 70 dB CNEL for residential.

The Urban Crossroads supplemental letter report (March 2008) identified two access points each on Cucamonga Avenue and on Chino Corona Road and a density change for both single-family and multi-family units from the proposed Project (see Exhibit 7-1), resulting in a decrease of overall trips for the Preferred Plan Alternative. Five intersections were analyzed for the Preferred Plan Alternative, three of which were analyzed for the proposed Project. Based on the Urban Crossroads supplemental letter report, the Preferred Plan Alternative is expected to generate approximately 5 percent less traffic overall than the proposed Project.

Table 7-16 and Table 7-17 below provide the future noise levels for years 2019 and 2030, both with and without the Project, for the Preferred Plan Alternative. The intersections included in Table 7-16 and Table 7-17 below are from the Urban Crossroads supplemental letter report dated February 2008.

As indicated in the initial Urban Crossroads Traffic Impact Analysis, the proposed Project is not consistent with the City's General Plan and requires a Specific Plan amendment. Therefore, future year analysis required for the Project includes future conditions at the time of anticipated full Project occupancy (typically referred to as Interim Year conditions) and at General Plan Buildout (Post-2030) conditions. Both of these future conditions were analyzed without and with the proposed Project. The residential development is expected to be fully occupied by 2019. Therefore, Interim Year conditions were analyzed for 2019 in the Traffic Impact Analysis and the supplemental letter report for the Preferred Plan Alternative.

For the proposed Project, as shown in Tables 4.11-6 and 4.11-7 in Section 4.11, Noise of this Draft EIR, future noise levels with the proposed Project for both 2019 and 2030 would not experience a substantial increase in noise levels of 3 dBA or greater when compared in the same year to conditions without the proposed Project. However, both the site access roads along Cucamonga Avenue would experience a substantial increase in noise levels for the Preferred Plan Alternative.

Based on Tables 4.11-5 and 4.11-6 in Section 4.11, Noise of this Draft EIR, without incorporating Project-generated traffic, Euclid Avenue at Edison Avenue would result in noise levels of 63.9 dB. Including proposed Project traffic would result in the intersection experiencing a noise level of 64.0 dB in 2030 under AM peak hour conditions, indicating the Project would not contribute a substantial noise increase. The highest future noise level for the proposed Project is at the intersection of Euclid Avenue at Edison Avenue, with a noise level of 64.0 dB in 2030 for AM peak hour conditions with the Project. Therefore, all intersections analyzed in the original Traffic Impact Analysis would operate at noise levels below the normally compatible standard of 70 dB for residences. All intersections predicted to result in future noise levels between 60.0 dB and 64.0 dB are not within the Project vicinity.

The nearest intersection predicted to be above 60 dB is Euclid Avenue at Pine Avenue, nearly 1.5 miles to the northwest of the Project site. Based on attenuation from distance, the future residences of the Project's single-family homes would not experience noise levels greater than 60 dB. Additionally, the future residences of the Project's multi-family homes would not experience noise levels greater than 70 dB.

With regard to the intersections analyzed for the Preferred Plan Alternative, the highest noise levels would be 55.4 dB at the intersection of Chino Corona Road and Cucamonga Avenue, well below the standard of 70 dB. However, traffic at the intersections of Cucamonga Avenue and both the northerly and southerly Project site access roads would result in a substantial increase in noise at the northerly access road in both 2019 and 2030 for AM and PM peak hour conditions, and at the southerly access road in 2019 for AM and PM peak hour conditions and in 2030 for PM peak hour conditions. This evaluation of the noise increase as substantial is based on an increase of 5dB or greater where ambient noise levels are below 65 dB. Although existing noise levels are not available for these locations, based on the existing noise levels from Tables 4.11-5 and 4.11-6 in Section 4.11, Noise of this Draft EIR, existing noise levels are not expected to be greater than 65 dB. However, as indicated below in Table 7-16 and Table 7-17, although the Project would not exceed the 65 dB noise standard for these intersections, the Project would result in an increase in traffic noise above existing noise levels that would range from 5.4 dB to 10.3 dB. The increase in noise above existing levels could adversely affect existing residences, located west of Cucamonga Avenue, associated with GH dairies. However, due to the nature of the continuing conversion of agricultural land uses to non-agricultural land uses in The Preserve Specific Plan area above the 566' elevation line as currently plotted, the City of Chino does not regard a substantial increase in noise above existing levels to be significant where noise would not exceed the 65 dB standard and the affected sensitive receptors are located within an agricultural land use. Accordingly, the noise that would be generated at the intersections of Cucamonga Avenue and the northern and southern Project access points under the PPA would not be regarded as significant, and no mitigation would be required.

Table 7-16: Preferred Plan Alternative Offsite Traffic Noise Levels - Interim and Future AM Peak Hour Conditions

Roadway Segment	CNEL, dB							Potentially Significant Impact?
	Existing Noise	Interim Year 2019			Future Year 2030			
		W/O Project	With Project	Change	W/O Project	With Project	Change	
Cucamonga Avenue at Chino Corona Road*	52.1**	52.6	54.9	2.3	53.6	55.0	1.4	No/No
Cucamonga Avenue Northerly Project Access	NA	43.4	51.1	7.7	44.5	49.9	5.4	Yes/Yes
Cucamonga Avenue Southerly Project Access	NA	43.4	50.3	6.9	44.5	48.8	4.3	Yes/No
North West Site Access at Chino Corona Road*	NA	51.8	52.5	0.7	52.7	53.3	0.6	No/No
Main Street/North East Site Access at Chino Corona Road*	NA	52.1	53.2	1.1	53.5	54.8	1.3	No/No

*Depicts roadway segments that were analyzed for the proposed Project

** Existing traffic counts taken from the 2007 Traffic Impact Analysis as they were not provided in the March 2008 supplemental letter report.

Distance to Centerline for all roadways is 65 feet.

Source: Michael Brandman Associates 2008.

Table 7-17: Preferred Plan Alternative Offsite Traffic Noise Levels - Interim and Future PM Peak Hour Conditions

Roadway Segment	CNEL, dB							Potentially Significant Impact?
	Existing Noise	Interim Year 2019			Future Year 2030			
		W/O Project	With Project	Change	W/O Project	With Project	Change	
Cucamonga Avenue at Chino Corona Road*	52.5**	52.8	55.4	2.6	53.4	55.1	1.7	No/No
Cucamonga Avenue Northerly Project Access	NA	41.2	51.5	10.3	42.3	49.7	7.4	Yes/Yes
Cucamonga Avenue Southerly Project Access	NA	41.2	50.7	9.5	42.3	48.4	6.1	Yes/Yes
North West Site Access at Chino Corona Road*	NA	52.1	52.9	0.8	52.7	53.4	0.7	No/No
Main Street/North East Site Access at Chino Corona Road*	NA	52.9	54.1	1.2	54.7	56.0	1.3	No/No

*Depicts roadway segments that were analyzed for the proposed Project

** Existing traffic counts taken from the 2007 Traffic Impact Analysis as they were not provided in the March 2008 supplemental letter report.

Distance to Centerline for all roadways is 65 feet.

Source: Michael Brandman Associates 2008.

Temporary or Periodic Increase in Ambient Noise Levels

A temporary or periodic increase in noise levels in the Project area would be influenced by construction of the Preferred Plan Alternative.

Construction noise represents a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the Preferred Plan Alternative would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Short-term noise impacts would occur during construction activities from the noise impacts created from the transport of workers and movement of construction materials to and from the Project site, and from the noise generated onsite during demolition, ground clearing, excavation, grading, and construction activities. Section 4.11, Noise of this Draft EIR lists typical construction equipment noise levels for equipment that would be used during construction of the proposed Project. Construction activities are carried out in discrete steps, each of which has a unique mix of equipment and, consequently, unique noise characteristics. These various sequential phases of Project construction would change the character of the noise levels surrounding the construction site as work progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise ranges to be categorized by work phase.

Existing Receptors

Based on their proximity to the Project site, the residential land uses to the west and northeast of the Project site are the sensitive receptors of most concern as they relate to construction noise from the Preferred Plan Alternative. Section 4.11, Noise of this Draft EIR provides the estimated maximum noise levels each existing sensitive receptor would be expected to experience during construction. Note that construction noise often varies significantly on a day-to-day basis.

Maximum construction noise levels are estimated to be 87 dB at the residences northeast and west of the Project site along the north and south sides of Chino Corona Road, 84 dB at the residences west of the Project site along Cucamonga Avenue, and 64.5 at the women's state prison facility.

Construction noise would last the duration of construction, although it would be the most noticeable during the initial months of intensive grading and building construction. This estimated noise level represents a potentially significant impact.

In order to minimize disruption to existing residents, all construction activity would be performed in accordance with Chino Municipal Code Noise requirements. Additionally, mitigation, as provided in Section 4.11, Noise of this Draft EIR would require incorporation of noise attenuation measures into the Project. With the implementation of mitigation measures N-1 and N-2 for the proposed Project, construction noise would be reduced to a less than significant impact for existing receptors for the Preferred Plan Alternative.

Future Receptors

Because the Project would be built in phases, the earliest residents could be exposed to construction noise levels while subsequent phases are being completed.

Airport Noise Levels

Exhibit 4.11-1 in Section 4.11, Noise of this Draft EIR shows that the Preferred Plan Alternative would be outside of the 65 dBA noise contours. Based on airport noise levels not expected to exceed 65 dBA, people residing or working in the Project area would not be exposed to excessive noise levels. Any future airport noise contour changes based on airport operations and/or modifications to the Chino Airport Master Plan (San Bernardino County, 2006) would not be expected to result in a future noise constraint to noise-sensitive uses planned in the Project area based on the distance to the airport. In addition, only the northernmost portion of the Project site is contained within Safety Zone III, within which few restrictions to residential uses apply under the Comprehensive Land Use Plan for Chino Airport (1992). Aircraft overflights would be audible by future Project residents, although the noise levels would not be significant.

Private Airstrip Noise Levels

There are no private airstrips in the Project vicinity. The nearest airport is the Chino Airport, located approximately 1.5 miles north of the Project site. Potential impacts from the Chino Airport are discussed above. There would be no impact from private airstrips.

Summary Comparison

Table 7-18 provides a summary listing of noise impacts for the proposed Project and for the PPA.

Table 7-18: Noise Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Noise Levels in Excess of Standards	Less than Significant.	Less than Significant.
Excessive Groundborne Vibration	Less than Significant.	Less than Significant.
Permanent Increase in Ambient Noise Levels	Less than Significant.	Less than Significant.
Temporary or Periodic Increase in Ambient Noise Levels	Less than Significant.	Less than Significant.
Airport Noise Levels	Less than Significant.	Less than Significant.
Private Airstrip Noise Levels	No Impact.	No Impact.
Cumulative	Less than Significant.	Less than Significant.

7.2.12 - Population and Housing

Table 7-19 lists population and housing impacts for the proposed Project and the PPA. The dwelling unit total for both plans is 1,074 dwelling units, which would then generate 3,877 persons (3.61 persons per household in Chino). This would represent approximately 1.2 percent of the total population at buildout for The Preserve Specific Plan area (353,022). Both the proposed Project and the PPA are considered to have less than significant population and housing impacts.

Table 7-19: Population and Housing Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Population Growth	Less than Significant.	Less than Significant.
Housing Displacement/Replacement Housing	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

7.2.13 - Public Services

Table 7-20 lists public service impacts for the proposed Project and the PPA. Through payment of development fees that provide funds for public service facilities and equipment, fire protection and police protection demands would be met for either plan. Payment of school fees and dedication of public park land will address demand for school and park services under both plans. Both the proposed Project and the PPA are considered to have less than significant public service impacts.

Table 7-20: Public Service Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Public Services (Fire, Police, Schools, Parks, Other)	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

7.2.14 - Recreation

Based upon the City's standard of 3 acres of park and recreational facilities for every 1,000 residents, full build-out of the Project site under either plan would result in the need for 11.63 acres of park and recreational facilities based upon the estimated buildout population of 3,877 persons (1,074 dus x 3.61 persons/household). The City only allows park or open space credit for active park or open space development. The 3.4-acre active park in Planning Area 10 and the 8-acre active park along Cucamonga Avenue, as proposed under the PPA (see Exhibit 7-8), would be applied to satisfy the park requirement.

Table 7-21 lists recreation impacts for the proposed Project and the PPA. Under the proposed Project, dedication of public park land developed for active recreational uses will not fully address demand for park services. The proposed Project is, therefore, considered to have significant recreation impacts. Under the PPA, however, approximately 11.4 acres of public park land to be devoted to active recreational uses would be dedicated to the City, roughly satisfying the City requirement for park and recreational facilities. Recreation impacts under the PPA would be less than significant.

Table 7-21: Recreation Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Park Use	Significant.	Less than Significant.
Recreational Facilities Physical Effect on Environment	Less than Significant.	Less than Significant.
Cumulative	Significant.	Less than Significant.

7.2.15 - Transportation and Traffic

The following text provides analysis supporting the level of significance after mitigation for the PPA and quantitatively compares transportation and traffic impacts associated with the PPA to the transportation and traffic impacts of the proposed Project.

The Urban Crossroads Preferred Plan Sensitivity Analysis for the Preferred Plan Alternative (March 2008) was prepared to address the potential impacts of the PPA. The PPA results in a decrease in net vehicle trips. The PPA will generate 8,284 trip-ends per day (a reduction of 452 daily trip-ends in comparison the proposed Project), with 656 vehicles per hour (VPH) during the AM peak hour (a decrease of 38 VPH in comparison to the proposed Project), and 804 VPH (a decrease of 60 VPH) during the PM peak hour). The PPA would generate approximately 5% less traffic than the proposed Project.

The only difference in trip distribution patterns for all scenarios (Year 2019 and General Plan Buildout Out - Post 2030) is the allocation of proposed Project traffic to the single access roadway off Cucamonga Avenue, while the PPA allocates traffic to two access points off Cucamonga Avenue. PPA traffic outside of the focused traffic study area is unchanged in comparison to proposed Project broader trip distribution information presented in the November 2007 Traffic Impact Analysis prepared by Urban Crossroads and included in Appendix J of this Draft EIR.

In Year 2019, trip distribution patterns reflects the tendency for Project site traffic volumes to travel farther to the northwest prior to the full completion of The Preserve Specific Plan project and other major developments in the Project area. At the time of the General Plan Buildout (Post 2030), Chino Corona Road is anticipated to carry more Project site traffic in comparison to Cucamonga Avenue.

Urban Crossroads also prepared an updated signal warrant analysis to evaluate the need for traffic signals for the Preferred Plan Alternative. A traffic signal is warranted at the intersection of Cucamonga Avenue (NS) at Chino Corona Road (EW) during 2019 Proposed Project (PPA) traffic conditions. Additionally, without Proposed Project (PPA) conditions during the 2030 scenario, a traffic signal is anticipated to be warranted at the intersection of Main Street/North East Site Access (NS) at Chino Corona Road (EW).

Table 7-22 shows the intersection operations analyses for Year 2019 with Project (PPA) traffic conditions. As shown in Table 7-22, all of the study area intersections are projected to experience acceptable LOS with the proposed improvements.

The intersection analysis for General Plan buildout Year 2030 is presented in Table 7-23. All five of the intersections studied are projected to experience acceptable LOS with the proposed improvements. Implementation of the Preferred Plan Alternative would result in a reduction of approximately 9.8 percent in Project fair share contribution for offsite improvements, which is generally consistent with the PPA's reduced trip generation. Similar to the proposed Project, the PPA will require a fair share payment contribution for improvements for a future Mill Creek Bridge. Similar to the proposed Project, with the payment of fair share contributions for offsite improvements and construction of onsite improvements, the Preferred Plan Alternative will have less than significant transportation and traffic impacts in all areas except cumulative (see Table 7-24). In accordance with the reduction in ADTs, the PPA will have less transportation and traffic impacts than the proposed Project.

Table 7-22: Interim Year with Proposed Project (PPA) Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹																					
		Northbound				Southbound				Eastbound				Westbound				Delay ² (Secs.)		Level of Service			
		L		T		R		L		T		R		L		T		R		AM		PM	
		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Cucamonga Avenue (NS) at:																							
Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	38.1	— ⁴	E	F
with Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	36.1	32.1	D	C
Main Street/North East Site Access (NS) at:																							
Chino Corona Road (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	21.0	26.8	C	D
Cucamonga Avenue (NS) at:																							
Northerly Cucamonga Avenue Site Access (EW)	CSS	0	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0	1	0	10.2	9.3	B	A
North West Site Access (NS) at:																							
Chino Corona Road (EW)	CSS	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	13.5	14.5	B	B
Cucamonga Avenue (NS) at:																							
Southerly Cucamonga Avenue Site Access (EW)	CSS	0	1	0	1	1	0	0	0	0	0	1	0	0	1	0	0	1	0	9.5	9.0	A	A

Notes:

- ¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes
L = Left T = Through Right = Right
- ² Delay and level of service calculated using the following analysis software: Traffix, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.
TS = Traffic Signal CSS = Cross Street Stop
- ³ TS = Traffic Signal AWS = All Way Stop
- ⁴ — = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F."
Source: Urban Crossroads, 2008.

Table 7-23: General Plan Buildout (Post-2030) with Proposed Project (PPA) Conditions Intersection Analysis Summary

Intersection	Traffic Control ³	Intersection Approach Lanes ¹														Delay ² (Secs.)		Level of Service	
		Northbound			Southbound			Eastbound			Westbound								
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM		
Cucamonga Avenue (NS) at:																			
Chino Corona Road (EW)	AWS	0	1	0	0	1	0	0	1	0	0	1	0	21.7	— ⁴	C	F		
with Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	26.6	29.5	C	C		
Main Street/North East Site Access (NS) at:																			
Chino Corona Road (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	— ⁴	— ⁴	F	F		
with Improvements	TS	1	1	0	1	1	0	1	1	0	1	1	0	24.5	23.1	C	C		
Cucamonga Avenue (NS) at:																			
Northerly Cucamonga Avenue Site Access (EW)	CSS	0	1	0	1	1	0	0	0	0	0	1	0	9.5	9.0	A	A		
North West Site Access (NS) at:																			
Chino Corona Road (EW)	CSS	0	1	0	0	0	0	0	0	0	0	1	0	15.9	16.0	B	B		
Cucamonga Avenue (NS) at:																			
Southerly Cucamonga Avenue Site Access (EW)	CSS	0	1	0	1	1	0	0	0	0	0	1	0	9.0	8.7	A	A		
¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes. L = Left; T = Through R = Right																			
² Delay and level of service calculated using the following analysis software: Traffix, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.																			
³ TS = Traffic Signal; AWS = All Way Stop CSS = Cross Street Stop																			
⁴ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service “F.”																			
Source: Urban Crossroads, 2008.																			

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through R = Right

² Delay and level of service calculated using the following analysis software: Traffix, Version 7.9 R1 (2007). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal; AWS = All Way Stop CSS = Cross Street Stop.

⁴ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F."

Source: Urban Crossroads, 2008.

Table 7-24: Transportation and Traffic Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Traffic Increase and Level of Service Standards	Less than Significant.	Less than Significant.
Air Traffic Patterns	No Impact.	No Impact.
Hazards	Less than Significant.	Less than Significant.
Emergency Access	Less than Significant.	Less than Significant.
Parking Capacity	Less than Significant.	Less than Significant.
Conflict with Alternative Transportation	Less than Significant.	Less than Significant.
Cumulative	Significant.	Significant.

7.2.16 - Utilities and Service Systems

Table 7-25 lists utilities and service system impacts for the proposed Project and the PPA. Both plans involve the development of 1,074 dwelling units, similar demand for utilities and service systems, and a similar design for water quality and hydrology. Both the proposed Project and the PPA are considered to have less than significant utilities and service system impacts.

Table 7-25: Utilities and Service Systems Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Wastewater Treatment	Less than Significant.	Less than Significant.
Water or Wastewater Treatment Facilities and Wastewater Treatment Capacity	Less than Significant.	Less than Significant.
Stormwater Drainage Facilities	Less than Significant.	Less than Significant.
Water Supplies	Less than Significant.	Less than Significant.
Landfill Capacity	Less than Significant.	Less than Significant.
Legal Compliance for Solid Waste	Less than Significant.	Less than Significant.
Electricity	Less than Significant.	Less than Significant.
Natural Gas	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

7.2.17 - Climate Change

Table 7-26 lists climate change impacts for the proposed Project and for the PPA. The text following the table provides analysis supporting the level of significance after mitigation for the PPA and

quantitatively compares climate change impacts associated with the PPA to the climate change impacts of the proposed Project.

Table 7-26: Climate Change Impacts

Impacts	Level of Significance After Mitigation	
	Proposed Project	Preferred Plan Alternative
Assembly Bill (AB) 32 Greenhouse Gas Reduction Targets	Less than Significant.	Less than Significant.
Cumulative	Less than Significant.	Less than Significant.

The following analysis contains a comparison of the potential impacts for the proposed Project and the Preferred Plan Alternative (PPA).

Project Emissions of Greenhouse Gases

As shown in Table 7-27, the PPA would decrease the acreage used for low-density by 10 percent but would use 5 percent of the total acreage for estate residential (which is also considered low density), with a net decrease in low-density residential of 5 percent. The PPA would also increase the acreage for medium and high-density development by 1.8 and 1.7 percent respectively, increase recreational open space acreage by 7 percent, and decrease the open space water acreage by 5 percent.

Table 7-27: Difference in Acreage in PPA and Project

Land Use Type, Average Density (du/acre)	PPA: Dwelling Units	PPA: Parcel Acreage (Gross Acres)	PPA: Total Acres (%)	Project: Total Acres (%)	Difference between Project and PPA (% acreage for PPA)
Estate, 2.0	28	13.9	5.1	0.0	+5.1
Low Density, 5.5	387	70.4	25.8	35.8	-10.0
Medium Density, 10	337	33.7	12.3	10.5	+1.8
High Density, 16	322	20.1	7.4	5.7	+1.7
Open Space/Recreation	-	89.94	33.0	26.2	+6.8
Open Space/Water	-	24.66	9.0	14.4	-5.4
Open Space/Natural	-	20.23	7.4	7.4	0.0
Total	1074	272.93	100%	100%	-0.0%

As shown in Table 7-27, there would be more acreage for medium and high-density residential and less acreage for low density residential. The high-density use acreage would also be located closer to the northern part of the site, which could encourage the high-density residents to use alternative transportation methods to go to the retail and the transit stops located north of the site. However, the

PPA would still be constructing low density residential, thereby requiring more of the PPA population to drive to jobs and retail uses.

PPA emissions of greenhouse gases during construction would be essentially the same as the proposed Project. PPA emissions of greenhouse gases during operation would be approximately 4 to 5 percent less than the proposed Project. Therefore, the impacts of the greenhouse gas emissions from the PPA are slightly less than the proposed Project. The same mitigation for the Project would be required for the PPA.

Cumulative Project Emissions of Greenhouse Gases

The impact for the PPA would be slightly less than the proposed Project because there could be less driving associated with the PPA. The impact for both the proposed Project and PPA is less than significant.

Impacts to Project from Climate Change

There have been multiple publications that identify secondary effects of climate change in California, such as a decrease in the Sierra snowpack leading to a decreased water supply and increased wildfires. Exactly how these secondary impacts would influence the proposed Project or the PPA is speculative at this time. However, the PPA and the proposed Project are implementing design features and mitigation to reduce water use. It has also been determined that the Project site is not in a wildland-interface area and therefore should not be impacted significantly by wildfires. Therefore, although this potential impact is speculative, it is anticipated that it is less than significant and would be the same for the PPA as for the Project.

7.2.18 - Conclusions

Tables 7-28 and 7-29 compare the Preferred Plan Alternative with the proposed Project in table form.

Table 7-28: Impact Summary Comparison of Preferred Plan Alternative with Proposed Project

Environmental Issue	Preferred Plan Alternative
Aesthetics	E
Agricultural Resources	E
Air Quality	E ¹
Biological Resources	E
Cultural Resources	E
Geology and Soils	E
Hazards and Hazardous Materials	E
Hydrology and Water Quality	E
Land Use and Planning	E ¹
Mineral Resources	E

Table 7-28 (Cont.): Impact Summary Comparison of Preferred Plan Alternative with Proposed Project

Environmental Issue	Preferred Plan Alternative
Noise	E ¹
Population and Housing	E
Public Services	E
Recreation	L
Transportation/Traffic	L
Utilities and Service Systems	E
Climate Change	E ¹
Legend: L = Lesser impact than the proposed Project. G = Greater impact than the proposed Project. E = Equivalent impact to the proposed Project. E¹ = Roughly equivalent to proposed Project, but lesser impact than the proposed Project in certain impact categories. Text after Table 7-29 details individual impact areas within CEQA issue areas where lesser impact would be experienced for the PPA than for the proposed Project.	

Table 7-29: Objective Feasibility Comparison

Objectives	Proposed Project	Preferred Plan Alternative
OBJ-1 Implement land uses on this portion of the Specific Plan area that was originally planned for multi-purpose open space uses in such a way as to complement the existing and planned uses within The Preserve Specific Plan area.	Yes	Yes
OBJ-2 Design a development plan for the Edgewater Project site that integrates with The Preserve Specific Plan in terms of Development Regulations, Traffic & Circulation, Open Space System, Infrastructure, and Landscaping.	Yes	Yes
OBJ-3 Provide an open-space and lake-oriented community on the Project site that is designed to complement the natural, gently rolling terrain and view characteristics of the site, both within the site toward Project aesthetic features, and of distant mountain views.	Yes	Yes
OBJ-4 Design a development plan for the Project site that protects existing quality habitat and rehabilitates degraded habitat for plants and wildlife.	Yes	Yes
OBJ-5 Provide higher density residential uses within close proximity to The Preserve Community Core to promote pedestrian connection to the amenities within the Community Core.	Yes	Yes

Table 7-29 (Cont.): Objective Feasibility Comparison

Objectives	Proposed Project	Preferred Plan Alternative
OBJ-6 Encourage walkable linkages and connectivity of the Edgewater site through land use siting, and open space and trails, resulting in enhanced access to support services and a higher level of community interaction.	Yes	Yes
OBJ-7 Plan and develop the Edgewater Project as a cohesive community within The Preserve with a unifying architectural and landscape design theme, utilizing variety in the design of structures within this context.	Yes	Yes
OBJ-8 Provide a well planned development that generates revenue in balance with the cost of providing services.	Yes	Yes
OBJ-9 Provide a mix of high quality, low-, medium-, and high-density residential neighborhoods that all have access to the open space and water features of the development and are complemented by private recreational facilities, church/school, and museum/retail uses, but with an emphasis on low-density single-family, large-lot homes.	Yes	Yes to most elements of this objective (emphasis in PPA is not on low-density single-family, large-lot homes)
OBJ-10 Provide a variety of lot configurations for both attached and detached homes, including, but not limited to: zero lot line, “z” lots, and detached condominiums.	Yes	Yes
OBJ-11 Promote clustering of residential structures to accommodate the natural terrain of the site (versus a grid-like development).	Yes	Yes

The PPA can be considered superior to the proposed Project. because, while meeting all Project objectives, it:

- Reduces vehicular traffic by approximately 5%, resulting in a correlating reduction in:
 - Operational air emissions (even though the air quality impact remains significant for the PPA);
 - Noise generated from traffic (maintaining a less than significant noise impact); and
 - Greenhouse gases, maintaining a less than significant climate change impact; and.
- Would still have a significant land use and planning impact for conflicting with applicable plans, policies, or regulations, but at a reduced level since the PPA is more consistent with Smart Growth policies.

More so than the proposed Project, the PPA reflects design features, urban design concepts, and street patterns that are sensitive to the natural features of the Project site and the concerns expressed during the scoping process. Alternative 3 - Agricultural Preservation through Reduced Development Footprint remains the Environmentally Superior Alternative, however.

SECTION 8: OTHER CEQA CONSIDERATIONS

8.1 - Introduction

The determination was made by the City of Chino early in the EIR process that the EIR would contain a comprehensive analysis of all environmental issues identified in Appendix G of the CEQA Guidelines. The City of Chino engaged the public and local agencies in the scoping of the environmental document, and comments received during the scoping process have been considered in the Draft EIR. The contents of the Draft EIR were also refined based on comments received on the Notice of Preparation (NOP) of the EIR for the Project, prepared in accordance with the CEQA Guidelines.

8.2 - Significant Environmental Effects That Cannot Be Avoided

Potential environmental effects of the proposed Project and proposed mitigation measures are discussed in detail in Section 4 of this Draft EIR. The following environmental issues were determined to be less than significant, or could be reduced to less than significant levels with mitigation measures:

- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Utilities and Service Systems

Section 15126.2(b) of the CEQA Guidelines requires that the EIR describe any significant impacts, including those that can be mitigated but not reduced to less than significant levels. The following impacts would result in significant and unavoidable impacts at the project level, even with the incorporation of feasible mitigation measures that attempt to reduce impacts to less than significant levels:

- **Aesthetics** (Existing Visual Character)
- **Agricultural Resources** (Convert Farmland to Non-Agricultural Uses - Direct and Indirect; Conflict with Existing Zoning)
- **Air Quality** (Construction Related Impacts; Operation Related Impacts; Air Quality Plan; Air Quality Standards/Violations; Sensitive Receptors; Odors)
- **Biological Resources** (Local Policies or Ordinances Protecting Biological Resources; Conservation Plans)

- **Land Use and Planning** (Conflict with Applicable Land Use Plans, Policies, or Regulations; Conflict with Conservation Plans)
- **Recreation** (Recreational Facilities)

8.3 - Irreversible Impacts

As mandated by the CEQA Guidelines, the EIR must address any significant irreversible environmental change that would result from implementation of the proposed Project. Per the CEQA Guidelines (§ 15126.2(c)), such a change would occur if one of the following scenarios is involved:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage can result from environmental accidents associated with the project; and
- The proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy.)

The environmental effects of the Edgewater Communities Project are discussed in Section 4 of this Draft EIR and summarized in Section 2, Executive Summary. Implementation of the Edgewater Communities Project would require the long-term commitment of natural resources and land, as discussed in the following paragraphs.

Approval and implementation of actions related to the proposed Project would result in an irretrievable commitment of non-renewable resources such as energy supplies and other construction related materials. The energy resource demands would be used for construction, heating and cooling of buildings, transportation of people and goods, heating and refrigeration, lighting, and other associated energy needs.

Environmental changes with implementation of the proposed Project would occur as the physical environment is altered through continued commitments of land and construction materials to urban and rural development. There would be an irretrievable commitment of labor, capital, and materials used in construction and a permanent loss of open space. Nonrenewable resources would be committed primarily in the form of fossil fuels and would include fuel, oil, natural gas, and gasoline used by vehicles and equipment associated with implementation of the proposed Project.

The consumption of other non-renewable or slowly renewable resources would result from the development of the proposed Project. These resources would include, but not be limited to, lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, and water. Because alternative energy sources such as solar, geothermal, or wind energy are not currently in widespread local use, it is unlikely that real savings in non-renewable energy supplies (e.g., oil and gas) could be realized in the immediate future.

Development of the proposed Project would result in the construction of structures, facilities, or infrastructure on land that is currently undeveloped, utilized currently for agricultural uses. This land would be permanently committed to urban uses.

8.4 - Significant Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, the term cumulative impacts "...refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Individual effects that may contribute to a cumulative impact may be from a single project or a number of separate projects. Individually, the impacts of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulative considerable.

This Draft EIR has considered the potential cumulative effects of the proposed Project. Impacts for the following have been found to be cumulatively considerable:

- **Aesthetics** (Existing Visual Character)
- **Agricultural Resources** (Convert Farmland to Non-Agricultural Uses)
- **Air Quality** (Criteria Pollutants; Cumulative Air Quality)
- **Biological Resources** (Raptor Foraging Habitat)
- **Land Use and Planning** (Open Space and Agricultural Lands)
- **Recreation** (Recreational Facilities)
- **Transportation and Traffic** (Exceedance of County Congestion Management Agency Level of Service Standard for designated roads or highways)

8.5 - Growth Inducement

Growth inducing impacts are addressed in Section 15126.2(d) of the CEQA Guidelines. The CEQA Guidelines define growth inducing impacts as "...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

Growth inducing impacts can occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area of the project. Also included in this category are projects that would remove physical obstacles to population growth, such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or

projects that indirectly induce growth, are those which may provide a catalyst for future unrelated development in the area (such as a new residential community that requires additional commercial uses to support residents). The growth inducing potential of a project would also be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans, or in projections made by regional planning agencies.

The Preserve Specific Plan designates the Project site for open space and agricultural use (269.28 acres) with limited residential (3.65 acres of Estate Residential use with 7 dwelling units maximum). The proposed Project plans to maintain 130.84 acres of the Project site as open space (natural, recreation, and water) but convert an additional 138.44 acres to residential uses. The proposed uses are not consistent with the uses specified in The Preserve Specific Plan. However, other than contributing to the precedent of allowing development within and below the current 566' inundation line for the Prado Basin, changing the land use designations within the Edgewater Communities Project site to permit Project implementation is considered an isolated re-designation to allow urban uses and not growth inducing.

Existing land uses immediately surrounding the Project site include dairy and agricultural lands and lands owned by USACE and the Orange County Flood Control District (OCFCD). To the west are dairy uses (GH Dairies #1 and #2, and within the OCFCD property). To the east are open space and agricultural uses across Mill Creek (equestrian facility, green waste recycling/fertilizer plant, limited plant nursery operations, and the active Van Der Eyk Dairy further east). These properties are currently designated for agricultural and open space uses. Additional dairy operations north of Chino Corona Road occupy land designated for Estate Residential use. Dairy uses are already experiencing pressure to convert to non-dairy uses. Conversion to urban uses within these adjacent properties is not expected to be facilitated as a result of Project implementation based on current uses and ownerships, and limitations on infrastructure systems and other development constraints which would inhibit development. Development of the Edgewater Communities Project site is not considered growth inducing.

SECTION 9: PERSONS AND ORGANIZATIONS CONSULTED

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