Colton's Hub City Centre Specific Plan Draft EIR



City of Colton

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Lead Agency
City of Colton
650 N. La Cadena Drive
Colton, CA 92324

Mark Tomich
Development Services Director

Prepared By:
The Altum Group
73-710 Fred Waring Drive, Suite 219
Palm Desert, CA 92260

Nancy Ferguson
Environmental Planning Manager

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CHAPTER 1
Introduction

1.1 Overview of and Authority for the EIR

This Environmental Impact Report (EIR) (State Clearinghouse No. 2008041067) has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of an amendment to the West Valley Specific Plan (WVSP), hereafter referred to as the Colton's Hub City Centre Specific Plan (CHCCSP). This EIR has been prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.), the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.), and the City of Colton rules and regulations for the implementation of CEQA. It is intended to serve as an informational document for the public agency decision makers and the public regarding this project to amend the WVSP by adopting the CHCCSP to guide future development in the West Subarea of the WVSP project area (see Section 1.2.3 below for a description of the WVSP subareas).

The purpose of an EIR is to disclose information to the public and to decision makers about the potential environmental effects of a proposed project. An EIR does not recommend either approval or denial of a project; rather, it is intended to provide a source of independent and impartial analysis of the foreseeable environmental impacts of a proposed course of action.

The project evaluated in this EIR is the adoption and implementation of the CHCCSP by the City of Colton including the development of new projects on vacant and/or under utilized properties in the project area. The Specific Plan provides a roadmap for the physical development of properties in the CHCCSP project area including development and design guidelines that will be used by City Staff and elected and/or appointed officials to review, and evaluate and process future development proposals. This EIR describes the proposed project, analyzes its environmental effects, and discusses reasonable alternatives that would avoid, reduce, or minimize environmental impacts.

The City of Colton is the lead agency for the proposed project. The Colton City Council will consider the information presented in this document in making an informed decision regarding the approval and conditions of approval, or denial of the project.

1.2 Review of the Draft EIR

Upon completion of the preparation of the Draft EIR, the City of Colton will file a Notice of Completion (NOC) with the State Office of Planning and Research (State Clearinghouse) to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this

Draft EIR will be 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 Colton Development Services Department, the Colton Public Library and the Luque Branch Library. The addresses for each location are provided below:

City of Colton
Development Services Dept.
659 N. La Cadena Drive
Colton, CA 92324
Hours: 8:00 am to 4 pm,
Monday–Thursday

Colton Public Library
656 North 9th Street
Colton, CA 92324
Hours:
8:30 am to 5 pm, Monday–Friday

Luque Branch Library
294 East O Street
Colton, CA 92324
Hours:
8:30 am to 5 pm, Monday–Friday

Agencies, organizations, and interested parties who wish to comment on the Draft EIR during the 45-day public review period are requested to provide written comments to:

Mark Tomich, Development Services Director
Development Services Development
650 N. La Cadena Drive
Colton, CA 92324
Phone: 909.370.5185
Email: mtomich@ci.colton.ca.us

Submittal of electronic comments in Microsoft Word format is encouraged. Upon completion of the public review period, written responses to all significant environmental issues raised will be prepared and included in the Final EIR. Responses to comments received from public agencies will be made available for review at least 10 days prior to the public hearing before the City of Colton City Council on the project, at which the certification of the EIR will be considered. Comments received and the responses to comments will be included as part of the record for consideration by decision makers for the project.

1.3 Areas of Controversy/Issues to be Resolved

CEQA Guidelines Section 15123(b)(1) states that an EIR shall contain a brief summary of the proposed actions and the consequences, including a discussion of any areas of controversy known to the lead agency including issues raised by agencies and the public. One area of controversy was identified by the US Fish and Wildlife Service (USFWS) concerning the status of the Delhi Sands Flower-loving Fly (DSF) as a federal listed endangered species. The CHCCSP project area contains habitat known to be occupied by DSF as well as other sites within the project area with suitable habitat. The City of Colton has been consulting with USFWS and has prepared a Draft Habitat Conservation Plan (HCP). The HCP area covers the majority of the project area with the exception of the CHCCSP project area south of Valley Blvd. The HCP includes areas within the Hermosa Gardens Cemetery and adjacent to the Arrowhead Regional Medical Center (ARMC) where suitable habitat has been set aside for conservation or is proposed to be set aside with implementation of the HCP. The Draft HCP is currently under review by USFWS and based on their preliminary review, the City has identified four planning areas within the CHCCSP project area to be set aside in permanent conservation for DSF for a total of 48.4 acres.

CEQA Guidelines Section 15123(b)(2) states that an EIR must also identify issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. Chapter 4 of the EIR evaluates a range of environmental issues where the implementation of the proposed CHCCSP could result in significant environmental effects, however, mitigation measures have been identified for each environmental impact that would reduce the severity of the impact to less than significant levels. This is true for all issues except for Air Quality where emissions of VOC, NOx and CO would exceed the established thresholds during construction, on-going during operation, and cumulatively. In addition, the EIR identified a significant unavoidable impact on the City's ability to provide adequate park space for existing and future residents. Therefore this impact will remain significant for both the project and cumulatively.

Finally, the ARMC is located near the center of the project area although it is not part of the CHCCSP. Implementation of the CHCCSP will result in currently vacant or underutilized land to be developed around the facility. Understanding that the ARMC is a sensitive receptor, the CHCCSP has established development standards for the types of uses that may be developed in planning area adjacent to the ARMC. In addition, for applications received from developers in these planning areas, the City will include the County of San Bernardino Land Use Services Department and ARMC staff in the review of projects.

1.4 Consistency With Other Plans

1.4.1 Consistency with the General Plan

The City of Colton recently adopted a General Plan Update (2013) which updated the Land Use, Mobility (Circulation) and Housing elements. Other elements that were not updated are the Noise, Open Space and Conservation, Safety, Model Air Quality, and Cultural Resources Preservation elements. The amendment to the West Valley Specific Plan that would affect the West Subarea of the Specific Plan project area, has been developed to implement the goals and policies of the City's General Plan.

General plan consistency is achieved when the land uses proposed within a specific plan project area are compatible with, and serve to achieve the objectives, policies, general pattern of land uses and programs set forth in the General Plan. The Governor's Office of Planning and Research defines how a specific plan should be consistent with the general plan:

> *"An action, program or project is consistent with the General Plan if, considering all its aspects; it will further the objectives and policies of the General Plan and not obstruct their attainment."*

1.4.2 Relationship of the CHCCSP to the City's Zoning Ordinance

Development standards, regulations, guidelines and administrative procedures have been tailored to implement the City's vision for the CHCCSP project area (see Chapter 3.0 Project Description, Section 3.4.2). These will be used by City Staff and elected officials with property owners, developers, and builders to implement development through future parcel and tentative tract maps, final maps, improvement plans, and other site design and administrative reviews. These standards, regulations, guidelines, and administrative procedures would supercede the relevant portions of the City of Colton Zoning Ordinance, Title 18 of the Municipal Code. If the CHCCSP does not cover specific topics or uses covered in the Municipal

Code, then the City code shall prevail. If there is a discrepancy between the City Zoning Ordinance and the CHCCSP, then the CHCCSP would take precedence.

1.5 Project Area Boundaries

1.5.1 West Valley Specific Plan

The existing West Valley Specific Plan, adopted on June 18, 1996, was prepared in response to the opportunities for economic growth and revitalization associated with the construction of the County of San Bernardino's Arrowhead Regional Medical Center (ARMC) and the community's desire to upgrade the overall appearance of the area. The existing WVSP project area consists of two subareas: the West Subarea of approximately 476 acres and the East Subarea of approximately 152 acres, which are separated by a section of land that is within the County of San Bernardino and thus cannot be made a part of the Specific Plan adopted by the City.

Exhibit 1-1, *Existing WVSP and Proposed CHCCSP Project Area Boundaries*, shows the boundaries of the entire WVSP project area and the proposed area that is the subject of the specific plan amendment, the CHCCSP. The CHCCSP project area is in the West Subarea and bounded by San Bernardino Avenue on the north, the City of Colton boundary with the City of Rialto on the west; the I-10 freeway on the south, Hermosa Avenue and the Union Pacific Railroad on the east. The East Subarea is bounded by "C" Street on its uppermost northern parts, Grand Avenue on the west, the I-10 freeway on the south, and the Burlington Northern Santa Fe Railroad tracks on the east.

The CHCCSP has been prepared to revise and amend a portion of the West Subarea of the existing WVSP project area; the East Subarea will remain unaffected by this amendment. Exhibit 1-2, *Comparison of the WVSP and the CHCCSP Land Use Plans* shows the proposed changes in the land use plan to allow a greater mix of land uses in the project area.

In the West Subarea, approximately 373 acres of the total 476 acre would be affected by the proposed Specific Plan amendment. The difference of 103 acres is the result of excluding the areas encompassed by the ARMC and the existing Hermosa Gardens Memorial Cemetery, uses expected to remain for the long term and that are compatible with the goals and policies of the City General Plan.

1.5.2 West Valley Habitat Conservation Plan

The Draft Habitat Conservation Plan for the Delhi Sands Flower Loving Fly (West Valley HCP) area encompasses approximately 416.3 acres including an additional 5.8 acres along Slover

Avenue west of Pepper Avenue on the south side of the I-10 Freeway. The boundary of the CHCCSP project area and the West Valley HCP Plan area are similar with the exception of the following areas:

- The CHCCSP project area boundary extends south of Valley Boulevard to the I-10 Freeway and does not include any land south of the freeway. The CHCCSP project area boundary does not include the ARMC property or the Hermosa Gardens Cemetery.
- The West Valley HCP plan area boundary does not extend south of Valley Boulevard but does include 5.8 acres of non contiguous area south of the I-10 freeway along a segment of Slover Avenue and does include the ARMC property and Hermosa Gardens Cemetery.

Exhibit 4.4-2 in Section 4.4, Biological Resources shows the boundary for each study area. The HCP is still in Draft form under review by the US Fish and Wildlife Service (USFWS).

1.6 Scope of the EIR

1.6.1 Notice of Preparation and Scoping Meeting

The City issued a Notice of Preparation (NOP) to prepare an EIR for a 30-day review period between April 11 and May 12, 2008 for an amendment to the existing West Valley Specific Plan (WVSP). The project was referred to as the West Valley Specific Plan Amendment (WVSPA). The NOP was circulated through the State Clearinghouse and sent to all responsible agencies, adjacent cities and the County of San Bernardino, and to interested parties. Comments received during a public scoping meeting held on April 24, 2008 in the City of Colton City Council Chambers, as well as issues raised by agencies and the public in response to the NOP were considered in the preparation of the Draft EIR. The City received a number of comments which were summarized in the WVSPA Draft EIR, and incorporated into the analysis of the proposed WVSPA. The NOP is included in Appendix A of this EIR.

A Notice of Completion of the Draft EIR for the WVSPA was submitted to the State Clearinghouse on September 22, 2009, and circulated for public review for 45 days (September 22 to November 5, 2009). The City received a number of comments from agencies and interested parties, but suspended work on the preparation of a Final EIR, including responding to comments. There were two issues which caused the City to suspend work: 1) the recession that began in late 2007 and there were no development projects proposed for the project area; and 2) the presence of Delhi Sands Flower-loving Fly (DSF) and associated habitat within the project area, which necessitated that individual property owners and/or applicants consult with USFWS (a lengthy process). Comments received on the WVSPA Draft EIR are also included in Appendix A and were considered in the preparation of the EIR for the CHCCSP. The Draft EIR

for the WVSPA was not certified and the Specific Plan was not approved. With the progress of the Draft West Valley HCP and an upturn in the economy, the City has prepared a new specific plan for the same project area, with a revised mix of land uses and modified planning areas to account for the set aside of habitat in permanent conservation areas (Open Space). Therefore, the project analyzed in the WVSPA Draft EIR is not the baseline used to evaluate the revised project now referred to as the Colton's Hub City Centre Specific Plan, but instead, the information collected and the technical studies prepared for the WVSPA are used to evaluate the proposed CHCCSP where appropriate (see Section 1.6.2, *Documents Prepared for the Project*, below).

The City has spent the past several years working with USFWS to identify conservation areas within the project area boundary that would be set aside in perpetuity for DSF and to prepare a Habitat Conservation Plan (HCP) and Environmental Assessment (EA) under the National Environmental Policy Act (NEPA).

With the economy improving and a Draft HCP and EA submitted to USFWS, the City has reactivated the WVSP Amendment in the form of the CHCCSP. The CHCCSP project area boundaries remain the same and the proposed land uses are similar to those evaluated in the 2009 WVSPA Draft EIR. The difference is the location and size of the planning areas related to the proposed uses and the mix of land uses between the 2009 and 2014 draft specific plans.

Because the CHCCSP is an amendment to the 1996 WVSP, and the boundaries of the project area remain unchanged, no new NOP has been prepared and no additional public scoping meeting has been held. The State Clearinghouse Number (SCH No. 2088041067) is still valid and will be used to track the EIR through the public review process.

1.6.2 Organization of the EIR

This EIR has been prepared to evaluate the CHCCSP which, when implemented, will guide future development of a mix of land uses in the CHCCSP project area. Technical studies prepared for the project initially have been reviewed and where necessary have been updated to reflect changes in the regulatory or physical environment, and/or changes in the proposed land uses or proposed locations land use.

The EIR is organized into the following main chapters and sections:

Chapter 1: Introduction. This chapter provides an introduction and overview describing the purpose of the EIR, its scope and components, and its review and certification process. This chapter also includes a glossary of terms and a list of acronyms.

Chapter 2: Executive Summary. This section includes a summary of the proposed CHCCSP and

a discussion of the alternatives to the project. A brief description of the areas of controversy; issues to be resolved and an overview of the potential impacts, mitigation measures, and how the level of significance after mitigation is incorporated are also included in this section.

Chapter 3: Project Description. This chapter includes a detailed description of the proposed project, including its existing location, site conditions, and project characteristics. A discussion of the project objectives, intended uses of the EIR, responsible agencies and their roles in the environmental process, and permits/approvals that are needed for the proposed project are provided.

Chapter 4: Environmental Impact Analysis. This chapter analyzes the environmental impacts of the proposed project. Impacts are organized into major environmental topics. Each section includes a description of levels of the environmental setting, methodology for evaluating impacts, significance criteria, potential impacts, proposed mitigation measures, and significance after mitigation. The impact evaluation considers: direct impacts, indirect impacts, and cumulative impacts. The following specific environmental topics are addressed in Chapter 4.

Section 4.1 - Aesthetics: Addresses the visual impacts of development intensification and the overall increase in illumination produced by the projects that would be developed under the CHCCSP.

Section 4.2 - Agricultural Resources: This section describes the existing agricultural and forest resources and potential effects from implementation of development projects in the CHCCSP project area and the surrounding area.

Section 4.3 - Air Quality: Addresses the local and regional air quality impacts associated with project implementation as well as consistency with the South Coast Air Quality Management District (SCAQMD) 2007 Air Quality Management Plan (AQMP) and the project's contribution to climate change. This section also includes an evaluation of Health Risk associated with proximity of future sensitive receptors to regional transportation facilities.

Section 4.4 - Biological Resources: Addresses the project's impacts on habitat, vegetation, and wildlife; the potential degradation or elimination of important habitat; and impacts on listed, proposed, and candidate threatened and endangered species. This section also provides a summary of the Habitat Conservation Plan for the Delhi Sands Flower-loving Fly.

Section 4.5 - Cultural Resources: Addresses the impacts of project development on known historical resources and potential archaeological and paleontological resources.

Section 4.6 - Geology, Soils, and Seismicity: Addresses the potential impacts the project may have on soils, and assesses the effects of project development in relation to geologic and

seismic conditions.

Section 4.7 - Greenhouse Gasses: Addresses the project's estimated contribution to global warming through the emission of greenhouse gasses during construction and long term operation of the proposed land uses.

Section 4.8 - Hazards and Hazardous Materials: Addresses the likelihood of the presence of hazardous materials or conditions on the project site and in the project area that may have the potential to impact human health. Also addresses hazards that may be associated with proposed new uses.

Section 4.9 - Hydrology and Water Quality: Addresses the impacts of the project on local hydrological conditions, including drainage areas, and changes in the flow rates. This section also summarizes the requirements property owners and developers must comply with under the County's MS4 Permit for stormwater control, retention and release.

Section 4.10 - Land Use: Addresses the related land use impacts associated with implementation of the project, including physical division of an established community, project compatibility with surrounding land uses (including land uses in adjacent cities), and consistency with the City of Colton General Plan and Zoning Ordinance.

Section 4.11 - Mineral Resources: This section describes the existing mineral resources and potential effects from project implementation on the CHCCSP and its surrounding area.

Section 4.12 - Noise: Addresses the noise impacts that may occur during construction and at project buildout from mobile and stationary sources. The section also addresses the potential for new land uses to impact neighboring areas such as the ARMC and habitat conservation areas.

Section 4.13 - Population and Housing: Addresses the potential of the proposed project to induce direct or indirect population growth.

Section 4.14 - Public Services: Addresses the impacts upon public service providers including fire, police, schools, parks, and other recreational facilities.

Section 4.15 - Traffic/Transportation: Addresses the impacts on the local and regional roadway system, parking, emergency access, public transportation, bicycle and pedestrian access.

Section 4.16 - Utility Systems: Addresses the impacts on water supply, wastewater, storm drains and solid waste.

Chapter 5: Other CEQA Required Sections. This chapter provides a summary of significant

environmental impacts, including unavoidable and growth-inducing impacts, and the project's irreversible and irretrievable commitment of resources. This chapter also provides a summary of environmental issues where findings can be made that the project would not cause an impact on the environment or that the impact would be negligible and therefore no further analysis in the EIR is required.

Chapter 6: Alternatives to the Proposed Project. This chapter compares the impacts of the proposed project with three project alternatives: the No Project Alternative, the Reduced Density Alternative option and an alternative habitat conservation scenario. An environmentally superior alternative is identified.

Chapter 7: Report Preparation Resources. This chapter lists the authors and City staff that assisted in the preparation of the EIR, by name and affiliation.

Chapter 8: References. This chapter contains a full list of references that were used in the preparation of this EIR.

Appendices: Includes all notices and other procedural documents pertinent to the preparation of the EIR, as well as all technical material prepared to support the environmental analysis.

1.7 Reference Documents

1.7.1 Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this EIR has referenced several public documents. Information from the documents, has been incorporated by reference, and has been briefly summarized in the appropriate sections. The relationship between the incorporated part of the referenced document and the EIR has also been described. The documents and other sources that were used in the preparation of this EIR are as follows:

- City of Colton General Plan (2013);
- City of Colton West Valley Specific Plan (1996);
- City of Colton WVSPA Draft EIR (2009) Technical Studies
- City of Colton Colton's Hub City Centre Specific Plan (Proposed);
- City of Colton Municipal Code; and
- City of Colton Development Code.

These documents are identified in Chapter 8, References, of this EIR. In accordance with Section 15150(b) of the CEQA Guidelines, the referenced documents and other sources used in the preparation of the EIR are available in the City's Development Services Department (see Section

1.1.1 for location and hours). These documents can also be found online at the City's website: http://www.ci.colton.ca.us/

1.7.2 Documents Prepared for the Project

The 2009 Draft EIR for the proposed WVSP Amendment included a number of technical studies that were reviewed for their relevance in supporting the findings of the EIR for the CHCCSP project. Because of the downturn in the economy in 2007-2008, and the status of the Delhi Sands Flower-loving Fly (DSF) as a federal endangered species, a determination was made that the baseline conditions identified in 2009 were similar to baseline conditions in 2013-2014 such that these technical studies still had value as resource material in the evaluation of the proposed CHCCSP.

The technical studies prepared for the proposed project are listed below, with their corresponding appendices in parentheses. Note that for Cultural Resources; a non-confidential Assessment is included in the technical appendices that withholds sensitive information that was only provided to USFWS and the State Office of Historic Preservation. These documents are included in their entirety on a CD at the back of this EIR.

- NOP and comments received, and comments received on the WVSPA Draft EIR (2009) (Appendix A.1 and A.2)
- Colton's Hub City Centre Specific Plan (CHCCSP) (Appendix B)
- Air Quality Analysis, Climate Change Analysis and Health Risk Assessment, prepared by Mestre Greve Associates (2008) and Kunzman Associates (2014) (Appendix C.1 and C.2)
- Habitat Conservation Plan, prepared by RBF (Appendix D)
- Cultural Resources Assessment (Appendix E) (Note: the findings of the 2008 Cultural Resources Letter Report were incorporated into this Assessment so it was not necessary to include the 2008 report)
- Preliminary Geotechnical Investigation Report, prepared by Petra Geotechnical, Inc. 2008 (Appendix F)
- Phase I Environmental Site Assessment, prepared by Petra Geotechnical, Inc. 2008 (Appendix G)
- Preliminary Hydrology Report, prepared by Hall And Foreman, Inc. 2014 (Appendix H)
- Noise Analysis, prepared by Mestre Greve Associates (2008) and Kunzman Associates (2014) (Appendix I.1 and I.2)
- Traffic Impact Analysis, prepared by Kunzman Associates (Appendix J)
- Water Supply Assessments: 1) prepared for the City of Colton Water Department by

Krieger & Stewart, Inc.; and 2) the West Valley Water District by Engineering Resources (Appendix K)

1.8 List of Acronyms

AB 1493	Assembly Bill 1493
ACHP	Advisory Council on Historic Preservation
af/yr	Acre feet per year
AMSL	Above Mean Sea Level
ARMC	Arrowhead Regional Medical Center
AST	Above Ground Storage Tank
ASTM	American Society of Testing and Materials
ATCMs	Airborne Toxic Control Measures
ATF	Alcohol Tobacco and Firearms
BIO	Biology
BMPs	Best Management Practices
BUOW	Burrowing Owl
BRT	Bus Rapid Transit
BP	Business Park
C_2F_6	Hexafluoroethane
CalARP	California Accidental Release Program
CARB	California Air Resources Board
CBC	California Building Code
CAA	Federal Clean Air Act
CCAA	California Clean Air Act
CDE	California Department of Education
CEC	California Energy Commission
CAGN	Coastal California Gnatcatcher

CalEPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CESQG	Conditional Exempt Small Quantity Generator
CF_4	Tetrafluoromethane
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CJUSD	Colton Joint Unified School District
CMP	Congestion Management Program
CMP	Corrugated Metal Pipe
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_3	Calcium Carbonate
CPHI	California Points of Historic Interest
CPUC	California Public Utilities Commission
CNEL	Community Noise Equivalent Levels
CPTED	Crime prevention through environmental design
CRHR	California Register of Historical Resources
CSP	Corrugated Street Pipe
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CC&Rs	Conditions, Covenant and Restrictions
dB	Decibel

Db	Delhi Fine Sand
dBA	A-weighted decibel scale
DCA	Development Capacity Analysis
DHS	Department of Homeland Security
DMP	Development Mitigation Program
DOF	California Depart of Finance
DPR	Department of Parks and Recreation
DPM	Diesel particulate matter
DSF	Delhi Sands Flower-loving Fly
EFZ	Earthquake Fault Zone
EMTs	Emergency Medical Technicians
EOP	Emergency Operations Plan
ESA	Endangered Species Act
FAR	Floor to area ration
FEMA	Federal Emergency Management Act
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
Ft-lb	Foot-pound
FTE	Full-time equivalent
GCP	General Construction Permit
GEO	Geology
GHG	Green House Gases
GIS	Geographic Information Systems
gpm	Gallons per minute
GRA	Gary Rasmussen and Associates
Gwh/y	Gigawatt-hours per year
GWP	Global warming potential

H_2S	Hydrogen sulfide
H_2SO_3	Aerosols of sulfurous acid
H_2SO_4	Corrosive sulfuric acid
HAZMAT	San Bernardino County's Hazardous Materials Division
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HHWE	Household Waste Element
HNL	Hourly Noise Level
HRA	Health Risk Assessment
HSC	California Health & Safety Code
HMBP	Hazardous Materials Business Plan
HVAC	Heating, ventilation, and air conditioning system
ISO	Independent System Operator
I-10	Interstate 10
JPA	Joint Powers Authority
kBTUs	Thousand British Thermal Units
kwh	Kilowatt hours
LAPM	Los Angeles Pocket Mouse
LASTs	Leaking above ground tanks
LCFS	Low-carbon fuel standard
LEQ	Equivalent Noise Level
Lmax	Maximum Noise Level
LMPs	Landscape Management Plans
LOS	Level of Service
LSE	Load-serving entity
LSTs	Localized significance thresholds
LUSD	Land Use Services Department

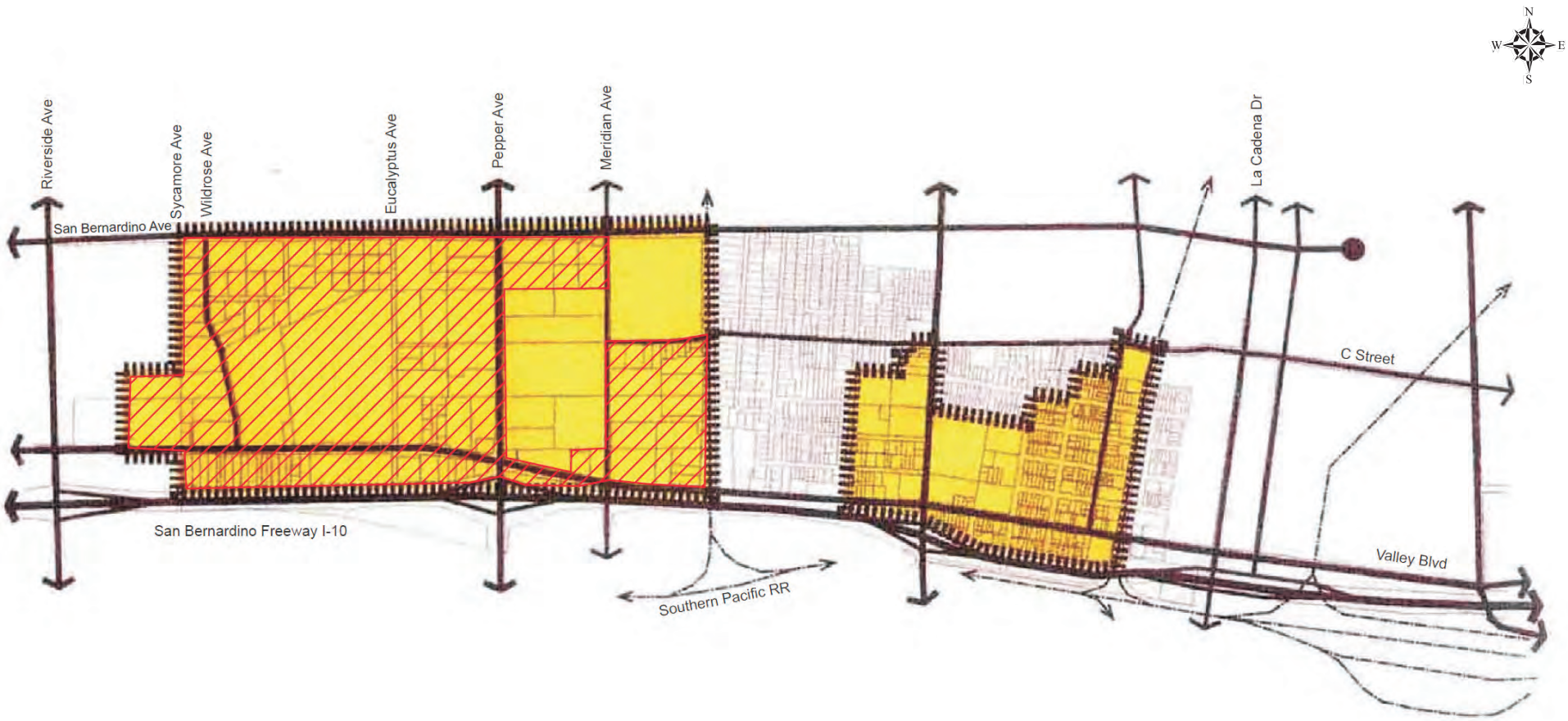
LUSTs	Leaking underground storage tanks
msl	Mean sea level
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MFR	Multi-Family Residence
MLD	Most Likely Descendant
mm/yr	Millimeters per year
mph	Miles per hour
MSHCP	Multiple Species Habitat Conservation Plan
MT	Metric tons per day
MW	Megawatts
N_2O	Nitrous dioxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NIMS	National Incident Management System
NNG	Non-native grasses
NO_2	Nitrogen dioxide
NOP	Notice of Preparation
NOT	Notice of Termination
NO_x	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
O_3	Ozone

OAL	California Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OFC	Office
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OPR	Governor's Office of Planning and Research
OSP	Open Space/Park
OTS	California Office of Administrative Law
Pb	Lead
PCBs	Polychlorinated byphenyls
PECs	Potential environmental concerns
$PM_{2.5}$	Fine Particulate Matter
PM_{10}	Particulate Matter
ppm	Part per million
PPV	Peak particle velocity
PRC	Public Resources Code
PUC	Public Utilities Commission
PVC	Polyvinyl chloride
Qaf	Artificial Fill
$Qoed_3$	Old eolian deposits
$Qyes_1$	Holocene to late Pleistocene eolian deposits
Qyf_5, Qyf_1, Qof_3	Holocene to middle Pleistocene Lytle Creek Fan deposits
$Qoes_3$	Relatively older eolian deposit
R5W	Range 5 West
R	Retail
RCL	Riverside Land Conservancy

RCPG	Regional Comprehensive Plan and Guide
RCRA	Resource Conservation and Recovery Act
RECs	Recognized environmental conditions
RES	Residential
RES-H	High Density
RES-M	Medium Density
RES-MH	Medium High Density
RHNA	Regional Housing Needs Allocation
RIX	Rapid Infiltration and Extraction Facility
RmC	Ramona Sandy Loam
RMDZ	Recycling Market Development Zone
RMP	Risk Management Plan
ROG	Reactive Organic Gases
ROW	Right-of-way
RTIP	Regional Transportation Improvement Program
RUs	Recovery units
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SAR	Santa Ana River
SBCFCD	San Bernardino County Flood Control District
SBIA	San Bernardino International Airport
SBKR	San Bernardino Kangaroo Rat
SBVMWD	San Bernardino Valley Municipal Water District
SCAB	South Coast Air Basin
SCE	Southern California Edison
SEMS	Standardized Emergency Management Services
SF_6	Sulfur hexafluoride

SFR	Single-family residence
SHPO	State Historic Preservation Office
SIP	State Implementation Plans
SO_4^{2-}	Sulfates
SO_2	Sulfur dioxide
SO_3	Sulfur trioxide
So_x	Sulfur dioxides
SPCC	Spill Prevention Control and Countermeasures
SWP	State Water Project
SWRCB	State Water Resources Control Board
SWPPPs	Stormwater Pollution Prevention Plans
T1S	Township 1 South
TACs	Toxic air contaminants
Tb	Tujunga Loamy Sand
therms/y	Million therms per year
$TgCO_2Eq.$	One teragram of carbon dioxide equivalent
TMDL	Total maximum daily load
TND	Traditional Neighborhood Design
TND	Traditional Neighborhood Development
TOD	Transit Oriented Design
TRUs	Transport Refrigeration Unit
UBC	Uniform Building Code
UP	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VdB	Vibration Decibels
V/C	Volume to Capacity

WDRs	Waste Discharge Requirements
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment
WVSPA	West Valley Specific Plan Amendment
WVWD	West Valley Water District



Legend

Boundary of The Specific Plan Area

Colton's Hub City Centre Specific Plan (CHCCSP) Project Area Boundaries

Source: JHA Consulting 2008

Not to Scale

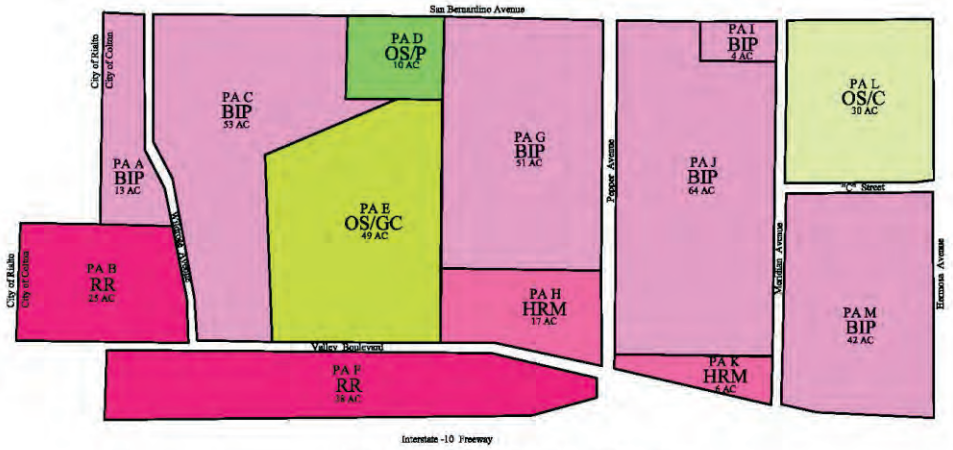
The Altum Group

Existing WVSP and Proposed CHCCSP Project Area Boundaries
CHCCSP Environmental Impact Report

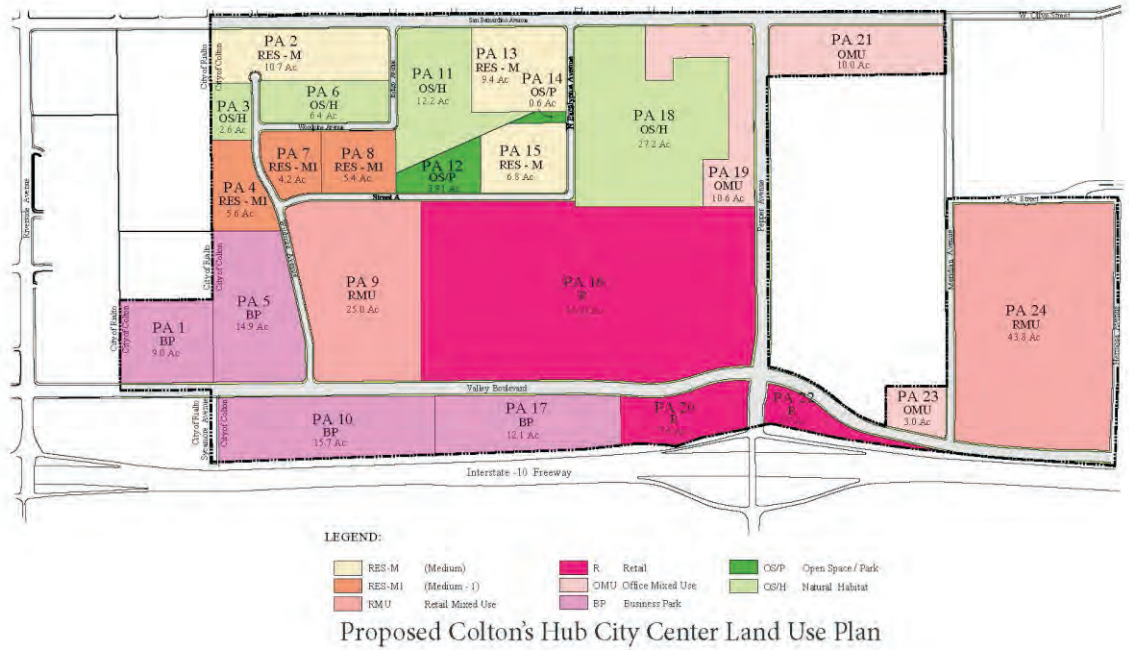
Exhibit 1-1

LEGEND FOR EXISTING WVSP:

RR	Regional Retail
HRM	Hospitality Retail / Medical Support
BIP	Business / Industrial Park
OS/P	Open Space / Park
OS/GC	Open Space / Golf Course
OS/C	Open Space / Cemetary



Existing West Valley Specific Plan



Proposed Colton's Hub City Center Land Use Plan

WVSP		CHCCSP	
RESIDENTIAL		**RESIDENTIAL**	**Acres**
none		RES-M	26.9
		RES-M 1	15.2
COMMERCIAL		**COMMERCIAL**	
RR	63 ac	R	79.2
HRM	23 ac	RMU	68.8
BIP	227 ac	OMU	23.6
		BP	51.7
OPEN SPACE		**OPEN SPACE**	
OS/P	10 ac	OS/P	4.51
OS/GC	49 ac	OS/H	48.34
OS/C	30 ac		

Source: JHA Consulting 2013

Not to Scale

The Altum Group

Comparison of the WVSP and CHCCSP Land Use Plans
CHCCSP Environmental Impact Report

Exhibit 1-2

CHAPTER 2
Summary of the EIR

2.1 Proposed Project

This Environmental Impact Report (EIR) (State Clearinghouse No. 2008041067) has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of a major amendment to the West Valley Specific Plan entitled *Colton's Hub City Centre Specific Plan (CHCCSP)*. This document was prepared in conformance with CEQA (California Code of Regulations, Title 14, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of a Draft EIR is to disclose information to the public and decision makers about the potential environmental effects of a proposed project. It does not recommend either approval or denial of a proposed project; rather, it is intended to provide a source of independent and impartial analysis of the foreseeable environmental impacts of a proposed course of action. This Draft EIR describes the proposed project, analyzes its environmental effects, and discusses reasonable alternatives that would avoid, reduce, or minimize environmental impacts. The City of Colton Planning Commission and City Council will consider the information presented in this document in making an informed decision regarding the approval, conditions of approval, or denial of the proposed project.

2.2 Project Summary

2.2.1 Project Location

The CHCCSP project area is located within the City of Colton in San Bernardino County, California (Chapter 3, Exhibit 3-1, *Regional Location*). The project site is composed of approximately 373 gross acres and is bordered by San Bernardino Avenue to the north, Interstate 10 to the south, Hermosa Avenue to the east, and on the west by the City of Colton boundary with the City of Rialto (Chapter 3, Exhibit 3-2, *CHCCSP Project Vicinity*). The CHCCSP project area is made up of multiple parcels as identified by the County of San Bernardino's Office of the Assessor generally found in the northern ½ of Sections 23 and 24, Township 1 South (T1S), Range 5 West (R5W) and Section 19, Township 1 South (T1S) Range 4 West (R4W) at latitude 34° 4.395' N, longitude 117° 21.517' W at the approximate center of the project area.

2.2.2 Project Background

The West Valley Specific Plan, adopted on June 18, 1996, was prepared in response to the opportunities for economic growth and revitalization associated with the construction of the new Arrowhead Regional Medical Center (ARMC) and the community's desire to upgrade the overall appearance of the area.

In 2007 the City began work on an amendment to the West Valley Specific Plan to revise the planning areas and land use types to take advantage of the proximity to the San Bernardino Arrowhead Regional Medical Center (ARMC).

A Notice of Completion was submitted to the State Clearinghouse on September 22, 2009, and circulated for public review for 45 days (September 22 to November 5, 2009). The City received a number of comments from agencies and interested parties, but suspended work on the preparation of a Final EIR, including responding to comments. There were two issues which caused the City to suspend work: 1) the recession that began in late 2007; and 2) the presence of Delhi Sands Flower-loving Fly (DSF) and associated habitat within the project area. Comments received on the Draft EIR are also included in Appendix A.

The CHCCSP revises and amends a portion of the West Subarea of the existing West Valley Specific Plan adopted in 1996; the East Subarea will remain unaffected by this amendment. Of the West Subarea, approximately 373 acres of the total 476 acre is affected by this amendment. The difference of 103 acres is the result of excluding the areas encompassed by the ARMC and the Hermosa Gardens Cemetery, uses expected to remain for the long term and that are compatible with the goals and policies of the City's General Plan.

Since that time, the Inland Empire has experienced growth in all market sectors. A large part of the delay in the City of Colton has been the result of the presence of the Delhi Sands Flower-loving Fly (DSF) in the CHCCSP project area, particularly in the western portion. Since DSF is a federally listed "endangered species" and since development of land impacted by DSF is prohibited by federal law unless certain requirements are met, development opportunities have been limited.

During the last two years, a significant effort and investment by the City of Colton has occurred to address the mitigation needs of DSF. A Habitat Conservation Plan (HCP) has been authorized by the City and has been submitted to U.S Fish and Wildlife Service. The CHCCSP incorporates the conservation areas specified in the HCP. The HCP is an independent process and is proceeding concurrently with the CHCCSP.

Other reasons for the lag in development in the project area relate to the recession that began in 2007; a lack of sufficient infrastructure in the project area; an undefined time frame for the I-10 Freeway and Pepper Avenue interchange improvements; and the reluctance of the market place to move forward in a piecemeal manner without a comprehensive development program that addressed infrastructure needs and the resolution of the DSF habitat issue.

2.2.3 Project Description

Under the WVSP amendment, the CHCCSP project area may be developed with a variety of land uses including retail, office, business park, residential, and open space for recreation uses. Habitat conservation is also a component of the CHCCSP. The DSF Habitat Conservation Plan requires the set aside of 48.4 acres including existing habitat set aside in the project area. Table 2-1, *Land Use Summary* provides a breakdown of the land use designations, acreage and number of dwelling units.

Table 2-2, *Planning Area Summary* provides a listing of the planning areas, proposed land uses, land use designations, acreage and density ranges for dwelling units.

Existing development within the CHCCSP project area is permitted to remain indefinitely. Any improvements to buildings and/or land will be subject to conditions provided under Non-Conforming uses in the General Provisions of Development Regulations, (CHCCSP Section 4.0), and other City of Colton Title 18 Municipal Code requirements as applicable. This is discussed in further detail in Section 4.9, *Land Use*.

The existing WVSP assumed buildout in the specific plan project area (both the West Subarea and the East Subarea) of a variety of nonresidential uses with a Floor Area Ratio of 0.25 (FAR 25). Using the same FAR approximately 2.4 million square feet of nonresidential uses could be developed in the CHCCSP project area. Table 2-3, *Projected Development of Non-Residential Uses*, shows the acreage and projected square footage by Land Use type.

2.2.4 Discretionary and Ministerial Actions

This EIR is being prepared by the City of Colton to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City of Colton is the lead agency for the proposed project and has discretionary authority over the Specific Plan and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the Specific Plan amendment.

Table 2-1 Land Use Summary

Description	Land Use Designation	Acres	Dwelling Units	Density	Percentage of Area
Residential					
Medium	RES-M	26.9	108	4 du/ac.	7.2
Medium-1	RES-M-1	15.2	167	11 du/ac.	4.1
Residential Sub-Total		**42.1**	**275**		**11.3**
Commercial/Office/Business Park					
Commercial Retail	R	79.2			21.2
Retail-Mixed Use	RMU	68.8			18.4
Office-Mixed Use	OMU	23.6			6.3
Business Park	BP	51.7			13.8
Commercial Sub-Total		**223.3**			**59.7**
Open Space					
Parks	OS/P	4.5			1.2
Habitat Conservation	OS/H	48.4			13.0
Open Space Sub-Total		**52.9**			**14.2**
Other Public Uses					
Major Street Rights-of-Way	-	**54.99**			**14.7**
Total		**373.2**	**275**		**100%**

Source: Colton's Hub City Centre Specific Plan March 2014.

Discretionary approvals and permits are required by the City or for implementation of the projects within the CHCCSP project area. Applicants for projects would be required to obtain a number of discretionary approvals and actions once the Specific Plan is adopted, including:

- Tentative Vesting and Final Map(s);

Master Plan and Master Plan Amendments;

- Development Agreements;
- Conditional Use Permits for hotel and cinema uses as well as senior housing projects;
- Formation of districts for infrastructure (i.e., Mello-Roos, Community Facilities Districts, or other mechanism);

Table 2-2 Planning Area Summary

Planning Area	Land Use	Land Use Designation	Acres	Target Density*	Target Dwelling Units	Dwelling Units*
1	Business Park	BP	9.00			
2	Residential/Medium	RES-M	10.70	4 du/ac.	43	0-51
3	Open Space/Habitat	OS/H	2.60			
4	Residential Medium 1	Res-M1	5.60	11 du/ac.	62	5.1-14
5	Business Park	BP	14.90			
6	Open Space/Habitat	OS/H	6.40			
7	Residential/Medium 1	Res-M1	4.20	11 du/ac.	46	5.1-14
8	Residential/Medium 1	Res-M1	5.40	11 du/ac.	59	5.1-14
9	Retail-Mixed Use	RMU	25.00			
10	Business Park	BP	15.70			
11	Open Space/Habitat	OS/H	12.20			
12	Open Space/Park	OS/P	3.91			
13	Residential/Medium	Res-M	9.40	4 du/ac.	38	38
14	Open Space/Park	OS/P	0.60			
15	Residential-Medium	Res-M	6.80	4 du/ac.	27	27
16	Retail	R	68.10			
17	Business Park	BP	12.10			
18	Open Space/Habitat	OS/H	27.20			
19	Office Mixed Use	OMU	10.60			
20	Retail	R	7.40			
21	Office Mixed Use	OMU	10.00			
22	Retail	R	3.70			
23	Office Mixed Use	OMU	3.00			
24	Retail-Mixed Use	RMU	43.80			
	Major Street ROW's		54.89			
	Totals		**373.20**		**275**	

Source: Colton's Hub City Centre Specific Plan March 2014

Table 2-3: Projected Development of Non-Residential Uses

Land Use	Non Residential Development	
	Acres	Square Feet[1]
Retail (R)	79.2	862,488
Retail Mixed Use (RMU)	68.8	749,232
Office Mixed Use (OMU)	23.6	257,004
Business Park (BP)	51.7	563,013
Total	**223.3**	**2,431,737**

Notes:

1. Assumes a Floor Area Ratio of 0.25 for development of non residential land uses. That is, 25 percent of a site would be developed with structures, the remaining site area would consist of parking lots, driveways, landscaping, loading areas, etc.

- Minor Use Permits (e.g., alcohol beverage service, outdoor seating, parking garages, etc.);
- Architectural and Site Plan Review;
- Major/Minor Subdivisions;
- Lot Line Adjustment; and
- Exercising Options for Land Acquisition (e.g., roadway improvements).

Future projects within the CHCCSP project area may require a number of City permits including:

- Demolition Permits;
- Encroachment Permits;
- Site Development Permits;
- Grading Permits;
- Building Permits;
- Occupancy Permits; and
- Utility Relocation.

Other actions future applicants must take to implement projects in the project area are:

- **Obtain Road Easements, Right-of-Entry, and Permits.** The project would require road easements and a right-of-entry permit (through an encroachment permit) for road improvements and new road construction. This encroachment permit would be obtained from the City of Colton Engineering Department.
- **Obtain Coverage Under the State's General Construction Permit.** Project construction would require coverage under the General Construction Permit issued to the State Water Resources Control Board and administered locally by the Santa Ana Regional Water Quality Control Board (RWQCB). A Storm Water Pollution Prevention Plan must be submitted in order to obtain the permit. The RWQCB would act as a CEQA responsible agency.
- **Obtain Approval of Water Quality Management Plans.** Projects within the Specific Plan Project area would require a water quality management plan that identifies Best Management Practices (BMPs) and Operations and Maintenance procedures that would ensure that runoff discharge from the project site does not degrade downstream water bodies.

Finally, a number of other agencies will serve as Responsible and/or Trustee Agencies, pursuant to CEQA Guidelines Sections 15381 and 15386, respectively. This EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with as part of project implementation. These agencies may include, but are not limited to, the following:

- U.S. Fish and Wildlife Service;
- California Department of Fish and Wildlife;
- California State Water Resources Control Board;
- California Department of Toxic Substances Control;
- California Department of Transportation;
- State Department of Housing and Community Development;
- Santa Ana Regional Water Quality Control Board;
- City of Colton Water and Wastewater Department;
- Western Municipal Water District; and
- South Coast Air Quality Management District

2.3 Project Objectives

The primary purpose of the CHCCSP is to implement the vision and policies of the City of Colton for Colton's Hub City Centre project that will amend and update a portion of the existing WVSP. These objectives have been used in the evaluation of the proposed Specific Plan amendment to the WVSP and to evaluate alternatives to the CHCCSP Land Use and Circulation plans that may meet these objectives while reducing the potential significant environmental effects of Specific Plan implementation. Specifically, the City's objectives in proposing the Specific Plan amendment are to:

- Establish a land use plan with comprehensive development regulations, community planning and design standards that will create a sense of community and a sense of place.
- Create a community that becomes a place where people are encouraged to walk or bicycle between homes, shopping, restaurants, entertainment and businesses.
- Assure that the area develops in a comprehensive and coordinated fashion with adequate consideration for infrastructure, public safety, public services, and resource management.
- Incorporate bus rapid transit (BRT) routes planned by Omnitrans along major streets within the CHCCSP project area.
- Create a new employment center for the City of Colton.
- Strengthen the City's economic base.
- Implement the goals and policies of the City of Colton General Plan.

2.4 Significant Unavoidable Adverse Impacts

Section 4, Environmental Impact Analysis and Section 5, Cumulative Impacts, provide an evaluation of the potential environmental impacts of the proposed project and recommend mitigation measures to reduce impacts to a less than significant level where feasible. With the implementation of the mitigation measures proposed, no significant unavoidable impacts will result with the implementation of the proposed project, with the exception of impacts to air quality as discussed below.

> *Section 15126.2(b) of the State CEQA Guidelines requires a Draft EIR to: "describe any significant impacts, including those which can be reduced but not mitigated to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect should be described."*

In the long term, after implementation of feasible mitigation measures, the CHCCSP will generate emissions of ROG, NO_x, and CO_2 that exceed the established thresholds. Therefore, in accordance with the South Coast Air Quality Management District's (SCAQMD) criteria future projects in the CHCCSP project area would contribute to significant and unavoidable project-related construction and operational impacts as well as cumulative impacts. This in turn will result in the CHCCSP not being in conformance with the AQMP. In addition, because the proposed CHCCSP replaces the existing 10-acre park with a residential neighborhood and compensates that loss with a new 3.8-acre park with a 0.6-acre linear feature called a "land bridge" for a total of 4.4 acres of new parkland, the 5.6-acre deficit creates a significant impact on Public Services –Parks for the project as well as cumulatively because it affects the entire City.

Table 2-3, *Summary of Project Impacts and Mitigation Measures*, provides a summary of environmental issues, mitigation measures, and the level of significance after mitigation is implemented.

2.5 Summary of Alternatives

Section 15126.6 of the CEQA Guidelines state that:

> *"An EIR shall include a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."*

In addition, CEQA Guidelines Section 15126.6(e) indicates that if other future uses of the land are predictable, such uses should be discussed as possible no-project conditions and that the project should be compared to them. Section 6, *Alternatives*, provides descriptions and analysis of each alternative in adequate detail to allow the decision-maker to decide whether or not an alternative should be adopted in lieu of the proposed project. This section provides a summary of the alternatives analysis conducted for the proposed CHCCSP.

Table 2-4: Summary of Project Impacts and Mitigation Measures

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.1 Aesthetics		
AES-4.1 a-d: Substantial adverse effect on a scenic vista, scenic resources, scenic highway, visual character, or cause light and glare.	**AES-1** Applicants submitting development review applications on sites in the project area shall prepare and submit a landscape plan along with their site plan to the City of Colton that meets the requirements of the City Municipal Code and is consistent with the adopted Specific Plan Landscape Design Guidelines of the CHCCSP Project. **AES-2** Landscaping and revegetation of graded areas shall occur as soon as practical after grading, to minimize the potential for erosion as well as to reduce the potential for visual and aesthetic impacts. **AES-3** Applicants submitting development review applications on sites in the project area along with their site plans shall prepare and submit a Lighting Plan with photometric analysis to the City of Colton that identifies the proposed luminosity and location of all lighting fixtures, the orientation of the fixtures, the types of shielding that will be used to avoid producing glare, the type of shielding that would minimize light spillover, and demonstrate through the photometric analysis of how the fixtures would avoid the spread of stray light across site boundaries. Lighting specifications that reduce light and glare shall comply with City of Colton requirements and shall appear as notes on the building plans. **AES-4** Applicants submitting development review applications for projects within Planning Areas 16, 20, 22 (retail), and Planning Areas 21, 23, 24 (office- and retail-mixed) shall prepare and submit site plans including building elevations and lighting plans with photometric lighting analysis to the County of San Bernardino Land Uses Services Department for review and comment, that identifies the proposed	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.1 Aesthetics (continued)		
Substantial adverse effect on a scenic vista, scenic resources, scenic highway, visual character, or cause light and glare.	luminosity and location of all lighting fixtures, the orientation of the fixtures, the types of shielding that will be used to avoid producing glare, the type of shielding that would minimize light spillover, and demonstrate through the photometric analysis of how the fixtures would avoid the spread of stray light across site boundaries into the ARMC site. Lighting specifications that reduce light and glare shall appear as notes on the building plans.	Less Than Significant
Section 4.2 Agricultural Resources		
Impact 4.2 a-e: Convert farmland or conflict with existing zoning for agricultural use, or conflict with existing zoning for, or cause rezoning of forest land.	No Impact and no mitigation measures are necessary.	No Impact
Section 4.3 Air Quality		
Impact 4.3 a: Consistency with the Air Quality Management Plan	Application of Mitigation Measures AQ 1 through AQ 15 would provide some reduction of impacts.	Significant unavoidable for project related and cumulatively
Impact 4.3 b and d: Violate an air quality standard or expose sensitive receptors to substantial pollutant concentrations	*Construction Measures* **AQ-1** The project applicant shall require that the grading contractors comply with SCAQMD Rule 403 minimum requirements for controlling fugitive dust and limit the grading area to no more than 5 acres per day.	Significant unavoidable for project related and cumulatively

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.3 Air Quality		
Violate an air quality standard or expose sensitive receptors to substantial pollutant concentrations	In addition the DSF HCP provides clear direction on how some BACM should be implemented as follows: Each Covered Project Proponent shall ensure that active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately. This would include such measures as: • sweeping local streets regularly during construction; • applying dust palliatives to areas that are not under active construction; • pre-water larger sites prior to initiation of grading, grade sites in phases timed to coincide with construction so that no sites are left graded and exposed to the elements; washing construction vehicles prior to leaving a construction site; • Installing wind fencing around construction sites with signage that identifies who to call if dust is seen blowing from the site; and • Any other measures that, at the time of approval of individual development projects, must be implemented on a project by project basis. **AQ-2** The project applicant shall require that architectural coating products are used that do not exceed more than 5g/L VOC content.	Significant unavoidable for project related and cumulatively

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.3 Air Quality (continued)		
Violate an air quality standard or expose sensitive receptors to substantial pollutant concentrations	**AQ-3** The project applicant shall require that all diesel construction equipment used on -site be certified Tier 4 Final, with level 3 diesel particulate filters and oxidative catalysts that are at least 25 percent efficient. *Operational Measures* **AQ- 4** All new development projects, or sites where significant redevelopment will occur shall be required to provide sidewalks along and within the property boundaries. **AQ-5** All new development projects, or sites where significant redevelopment will occur shall require that any future tenants institute a ride sharing program and employee vanpool/shuttle that is open to all employees. **AQ-6** All new residential project proponents shall ensure that the local school district serving the project area will offer a school bus program for children of future residents. **AQ-7** All new development projects, or sites where significant redevelopment will occur shall require that any future commercial tenants restrict delivery truck idling on the project site. **AQ-8** All future tenants must institute a recycling program that reduces waste to landfills by a minimum of 50 percent, or as stipulated by CalRecycle. The recycling program must include designated recycling bins at each proposed trash storage area and require all green waste to be stored in containers separate from other types of municipal solid waste. **AQ-9** All new development projects, or sites where significant redevelopment will occur shall exceed 2013 Title 24, Part 6 Standards by 3 percent, and meet Green Building Code Standards.	Significant unavoidable for project related and cumulatively

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.3 Air Quality (continued)		
Violate an air quality standard or expose sensitive receptors to substantial pollutant concentrations	**AQ-10** All new development projects, or sites where significant redevelopment will occur shall be equipped with faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures. **AQ-11** Water-efficient irrigation systems shall be installed at all new development projects, or sites where significant redevelopment will occur that conforms to the requirements of Colton Municipal Code. **AQ-12** All new development projects, or sites where significant redevelopment will occur shall include ENERGY STAR-compliant appliances wherever appliances are needed in buildings on-site and that natural gas only hearths be installed when needed. **AQ-13** All new development projects, or sites where significant redevelopment will shall be developed with high-efficiency lighting on-site that is at least 10 percent more efficient than standard lighting. **AQ-14** All new development projects, or sites where significant redevelopment will occur shall require that architectural coating products used for maintenance/re-application do not exceed more than 5g/L VOC content. **AQ-15** All new development projects, or sites where significant redevelopment will occur adjacent to or near conservation sites established in the HCP, shall include measures to reduce impacts associated with the operation of any development projects must be developed on a project by project basis depending on the type of land use being proposed and a site's proximity to the	Significant unavoidable for project related and cumulatively

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.3 Air Quality (continued)		
Violate an air quality standard or expose sensitive receptors to substantial pollutant concentrations	conservation areas identified in the HCP. These may include BMPs such as routine parking lot and street sweeping to reduce particulate matter; encouraging employees to use alternative modes of transportation and carpooling, and the development of workforce housing near employment generators such as the ARMC.	Significant unavoidable for project related and cumulatively
Impact 4.3 c: Cumulative Air Quality Impact	Application of Mitigation Measures AQ 1 through AQ 15 would provide reduction of impacts.	Cumulatively significant
Impact 4.3 e: Objectionable odors.	No Mitigation is required.	Less than significant
Section 4.4 Biological Resources		
Impact 4.4 a: Candidate, sensitive, or special status species (DSF)	**BIO-1** Construction Monitoring a. Covered Project Proponents will retain an experienced DSF biologist, e.g., someone who has conducted field research and/or presence/absence surveys, to function as the Biological Monitor for any development projects in the CHCCSP project area. b. At least 30 days prior to initiating project activities, project proponents will submit to the City, in writing, the name(s), any permit numbers, and resumes of all prospective Biological Monitors. c. Project activities, will not begin until a Biological Monitor(s) has been approved by the City. d. At least one week prior to grading, City-approved monitor(s) shall provide the City's Development Services Department with written and photographic documentation that the limits of construction have been properly defined, i.e., marked and fenced, are readily identifiable and are not encroaching on the existing or proposed conservation areas that will be established by this HCP.	Less Than Significant

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources		
Impact 4.4 a: Candidate, sensitive, or special status species (DSF)	e. The Biological Monitor(s) shall be responsible for ensuring that the approved limits of grading are not exceeded, that the fencing delineating the limits of construction is maintained, and that the contractor adheres to the other provisions set forth in this Section. f. The Biological Monitor will visit the site at least a twice weekly during project construction. g. The monitor(s), in cooperation with the on-site construction manager(s), shall have the authority to halt construction activities in the event that these provisions are not met. h. The monitor(s) shall submit a report to the City's Development Services Department at the end of the month during each month of construction documenting the implementation of all grading and construction minimization measures. i. If construction results in encroachment on existing or proposed conservation areas, the City will report the encroachment to the USFWS within 24 hours after receiving the monthly report. **BIO-2** The City of Colton will retain a qualified Biological Monitor for any repair, operations or maintenance, or emergency activities resulting in disturbance to occupied or potentially suitable DSF habitat. Biological Monitors for these activities will be subject to the same experience, approval and reporting requirements as for construction.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources		
Impact 4.4 a: Candidate, sensitive, or special status species (DSF)	**BIO-3** Worker Environmental Awareness Program a. All contractors and city employees who may work in areas containing occupied or potential DSF habitat will attend a worker environmental awareness program (WEAP) conducted by a biological monitor familiar with the species, to ensure that they are informed of the sensitivity of conserved areas and all applicable avoidance and minimization requirements to ensure conformity with all applicable provisions of the HCP Section 5.3, General Measures to Avoid/Minimize Impacts. The Biological Monitor will present information on the life history, ecology, legal and conservation status of the DSF and potential penalties that could occur as a result of violations of the endangered species Act. The importance and significance of the associated HCP and incidental take permit to the City of Colton will be emphasized. Personnel will be required to sign and date a form indicating that they have attended the program and fully understand the conservation measures and agree to comply. **BIO-4** Control of Toxic Substances - During and after the construction of any Covered Project, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be restricted so as to avoid impacts to DSF and their habitat. **BIO-5** Fire Prevention Equipment- to extinguish small brush fires (e.g., from trucks or vehicles) shall be present on site during all phases of construction, along with personnel trained in the use of such equipment. Smoking shall be prohibited in construction areas adjacent to flammable vegetation.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	**BIO-6** Controlled Access - Prior to commencement of clearing or grading activities, areas of existing conservation and areas proposed for conservation shall be clearly marked by a Biological Monitor, and temporary fencing will be installed to prevent disturbance by construction vehicles. All movement of construction personnel, including ingress and egress of equipment and personnel shall be limited to designated construction zones. The temporary fencing will be removed upon completion of all construction activities and replaced with permanent fencing to protect conserved habitatThe Covered Project Proponent and its contractor(s)/subcontractor(s) shall be responsible for compensating at a ratio of 10:1 (acre offsite conservation/acre impact) from the Colton Dunes Conservation Bank or through a private purchase of suitable DSF habitat and a commitment to its long-term management for the disturbance of sensitive habitat outside of the approved limits of construction. Any restoration mandated for infringements outside the project footprint shall require a restoration plan approved by the City. **BIO-7** Storage and Staging Areas - No temporary storage or stockpiling of construction materials shall be allowed within conserved areas/habitat, and all staging areas for equipment and materials shall be located a minimum of 50 feet away from existing or proposed conserved habitat. Staging areas and construction sites shall be kept free of trash, refuse, and other waste; no waste dirt, rubble or trash shall be deposited within conserved habitat.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	**BIO-8** Dust Control - Active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately. **BIO-9** Lighting - Night lighting shall be prohibited during the course of construction, unless absolutely necessary for safety and protection of property. If necessary, the lights must be shielded to minimize impacts to the surrounding habitat. ***Species-Specific Measures to Avoid/Minimize Impacts*** **BIO-10** Habitat Assessment - The City of Colton and USFWS have already spent considerable time and money inventorying the suitability of DSF habitat within the CHCCSP project area boundaries. This information provided the basis for the Incidental Take analysis, as well as the proposed conservation measures. The following additional avoidance and mitigation measures are proposed: a. The City of Colton will fence all conservation areas to limit access. Educational signage will be posted with information regarding the Colton Dunes natural community and DSF. b. Permanent lighting in developed areas adjacent to DSF conservation areas/habitat will be shielded to minimize impacts to DSF and other wildlife. c. Project applicants will be given a map clearly delineating DSF existing or proposed conservation areas in proximity to their project site.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	d. Project applicants will be responsible for clearly defining their project boundaries, i.e., marking and fencing, and designating the ingress and egress routes and demonstrating to the City of Colton that no impacts will occur to existing or proposed DSF conservation areas. e. All incidences of damage to DSF habitat not approved for development under the HCP will be reported within 24 hours to USFWS for their evaluation and recommendations for compensation, including the following: i. Any damage or loss of 0.25 acre or more of DSF habitat within existing or proposed conservation areas by the applicant or construction crews or contractors working for the applicant will be mitigated in the Colton Dunes Conservation Bank at a 5:1 ratio with the minimum compensation being 1-acre. f. Additionally, all damaged DSF habitat will be fully restored at the applicant's expense. A restoration plan will be developed for the review and approval of the City of Colton and the Service. It will include the following measures: i. Berms or excavations created by equipment will be removed restoring the natural contour of the site. To the extent possible, displaced topsoil and native vegetation (even if crushed) will be placed back in the area of the disturbance. g. Native seed will be collected from the surrounding area and seeded into the site after the top soil and grubbed vegetation is placed on the site of the disturbance.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	h. Weeds will be hand pulled or treated with an approved herbicide for two years in the growing season following the restoration. i. Performance standards will be developed for the restoration and the site will be monitored by a biologist for a specified period to determine if they have been met. j. Remediation actions will be specified in the restoration plan and taken in the event the performance standards are not met within the specified period. ***Monitoring and Management*** **BIO-11** The City of Colton is committed to the permanent protection and management of both the existing and proposed conservation areas in the HCP area. To achieve this maintenance, management and restoration of new conservation areas will be provided by the Riverside Land Conservancy (RLC) either separately or in concert with its management responsibilities for Colton Dune Conservation Bank located south of the 1-10 Freeway, as defined below. In addition, the following restoration/enhancement efforts will be initiated at the proposed conservation site and fully documented in a Habitat Management Plan (HMP). The HMP shall include the preparation and submittal of an annual implementation report through year five (5) of the management program; then every three (3) years thereafter. Additional focused surveys will be conducted for DSF and other potentially occurring species by a qualified biologist at year three (3) and every three (3) years thereafter.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	**BIO-12** Rough Step Process - The City of Colton recognizes that it is required to ensure that progress towards assembling the 63.7-acre conservation area stays ahead of the total impacts allowed under the permit. To ensure that this occurs, the City will acquire land, place a conservation easement over it and fund all management and monitoring during the first five (5) years and will include the management and monitoring costs in the City's annual budget process before grading permits are issued by the City to private developers or City Departments allowing ground disturbing activities to occur. Land will be acquired according to the following jump-start guideline and stay-ahead provision. **Jump-Start Guideline**. The City of Colton will either acquire the King-is-Coming site, 20.9 acres of occupied DSF habitat adjacent to the existing 4.5 acre Laing conservation site, or the 19.5 acres of occupied DSF habitat along San Bernardino Avenue West of the land bridge. Development within the HCP area will focus on the lower quality DSF habitat areas with the exception of high quality DSF habitat identified for development in the HCP adjacent to the King-is-Coming site and bordering Pepper Avenue. Those areas will be allowed to develop immediately upon issuance of the incidental take permit for the HCP, signature of the implementing agreement, and acquisition and recording of a conservation easement on the first 20 acres of DSF habitat, as defined above.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	**Stay-Ahead Provision**. During the first year after permit issuance, the City of Colton will be establishing its HCP management structure, collecting initial HCP fees, and actively pursuing land acquisition deals beyond the original 20.9-acre commitment as part of the Jump-Start requirement. To allow the City time for these start-up tasks to occur, the Stay-Ahead Provision will only apply after one (1) year of Plan implementation. After one (1) year, the City of Colton will need to demonstrate that its compliance with the Stay-Ahead Provision by the following methodology: The amount of DSF habitat acquired for conservation will exceed by 5 percent the amount of DSF habitat allowed to be developed. The HCP provides a listing of all parcels identified for development, current site conditions (developed vs. undeveloped), the type and acres of DSF habitat remaining on undeveloped portions of the parcel and conservation value of the identified DSF habitat. The amount of DSF habitat conserved and acquired will be measured both by number of acres of the habitat conserved or permitted for development multiplied by the following ratios based on quality of the habitat: High Quality Habitat 1.15 Medium Quality Habitat 1.00 Low Quality Habitat 0.25 Thus, development or conservation of 5 acres of high quality DSF habitat will be recorded as 5.75 conservation debits or 5.75 conservation credits, respectively. The total accumulation of credits must exceed total debits at all times by at least 10 percent.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	***Burrowing Owls*** **BIO-13** The following measures shall be implemented for burrowing owls: • Pre-construction surveys for burrowing owl shall be conducted for individual projects proposed within the CHCCSP project area and if present the owls shall be passively re-located from the project site. The pre-construction survey for burrowing owls shall be conducted within 30 days of any ground disturbance activity of any project site in the project area. No disturbance shall occur within 50 meters of occupied burrows during the non- breeding season (September 1 - January 31) or within 75 meters during the breeding season (February 1 - August 31). Onsite passive relocation shall be implemented if avoidance requirements cannot be met. Offsite mitigation may be required if implementation of the project will result in less than 6.5 acres per bird or pair and such a plan must be approved by CDFW. • Where applicable, seven days prior to the onset of construction activities for individual projects, a qualified biologist shall survey within the limits of project disturbance for the presence of any active raptor nests. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW. **BIO-14** The following measures shall be implemented for other avian species: • Vegetation removal, clearing, and grading on development sites shall be performed outside of the avian breeding and nesting season (between February 1 and June 30), when feasible, to	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Candidate, sensitive, or special status species (DSF)	minimize the effects of these activities on breeding activities of migratory birds and other species. If clearing occurs during breeding season, a 30-day clearance survey for nesting birds shall be conducted. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFG. If nesting activity is present at any nest site the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. • If nesting activity is present at any raptor nest site, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region of the project site normally occurs from February 1 to June 30. To protect any nest site, the following restrictions on construction are required between February 1 and June 30 (or until nests are no longer active as determined by a qualified biologist): (1) clearing limits shall be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying shall not be allowed within 200 feet of any occupied nest. Any encroachment into the 300/200-foot buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the nesting season can occur only at the sites if a qualified biologist has determined that fledglings have left the nest.	Less Than Significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Biological Resources (Continued)		
Impact 4.4 b and c: Riparian and Wetland Habitat	Review of topographic maps, aerial photographs and field surveys conducted as part of the preparation of the HCP show that there are no riparian habitat, wetlands or other jurisdictional waters occurring within the CHCCSP project area.	No Impact
Impact 4.4 d: Wildlife migration and nursery sites.	Mitigation Measures BIO-1 though BIO-10 and BIO-13 through BIO-14 would be implemented to address wildlife migration and nursery sites.	Less than significant
Impact 4.4 e: Regional policies or other local policies or ordinances protecting biological resources.	There are no regional or local policies protecting biological resources in the project area. All applicable policies are implemented at the State and federal levels. The County of San Bernardino has not yet formulated a local Multi-Species Habitat Conservation Plan (MSHCP) for the Valley area.	Less than significant
Impact 4.4 f: Local or Regional Habitat Conservation Plans.	There are no regional HCPs that apply to the project area. The West Valley HCP for DSF provides measures for the conservation of habitat for this species as well as other sensitive species that may also occupy the conservation areas.	Less than significant
Section 4.5 Cultural Resources		
Impact 4.5 a and b: Historical and Archaeological resources.	**CR-1** Site-specific Records Search - Prior to project-level ground-disturbing activities within the CHCCSP project area, a project site-specific records search at the Archaeological Information Center must be completed to determine if the project site has been subjected to a professional survey. If a current cultural resources report addressing potential impacts on cultural resources is available, the City/applicant will implement the mitigation measures provided within the report. Otherwise, mitigation measures CR-2 and CR-3 must be implemented during the City's application review process.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.4 Cultural Resources (Continued)		
Historical and Archaeological resources	**CR-2** Phase I Cultural Resources Study - In the event that a current and valid report is not available or if the entirety of the project-level site has not been professionally surveyed (see MM CR-1), a Phase I Cultural Resources Survey study shall be completed by a qualified cultural resource professional. If the Phase I study detects built-environment resources (buildings or structures aged 45 years old or older), and construction or implementation of the proposed project will either disturb or destroy such buildings or affect their historic setting, then a cultural resource professional who minimally meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History will be contracted to determine if the project may cause a substantial adverse change in the significance of a built environment historical resource as defined in Section 15064.5 of the CEQA Guidelines. The City/applicant will be responsible for implementing the methods for eliminating or substantially reducing impacts on historical resources identified in the technical report. Such methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey documentation that is appropriate to the significance (federal, state, local) of the resource. In the event that known or previously undetected archaeological resources are identified during the Phase I study then such resources must be recorded or updated onto Department of Parks and Recreation (DPR) 523 forms in accordance with all applicable regulations.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.5 Cultural Resources (Continued)		
Historical and Archaeological resources	In addition, any addressed resources must be evaluated for significance and eligibility for inclusion in all applicable registers of significant resources. This evaluation will be undertaken by a cultural resource professional who minimally meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology. In the event that such resources are found to be archaeological resources pursuant to CEQA, potential adverse impacts must be analyzed as stated in PRC Sections 21084.1 and 21083.2(1), and appropriate measures must be generated to avoid or substantially reduce potential impacts on archaeological resources as necessary. The City/applicant will be responsible for implementing the methods for eliminating or substantially reducing impacts on resources identified in the technical report. Such methods could include, but are not limited to, subsurface testing or excavation of archaeological resources and/or construction monitoring by a qualified professional and, if necessary, appropriate Native American monitors as identified through an information-seeping process and/or by the Native American Heritage Commission. **CR-3** Procedure for Unintentional Disturbance of Cultural Resources - If subsurface cultural resources are encountered during project-level implementation, or if evidence of an archaeological site or other suspected historic resources are encountered, all ground- disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the City/applicant to assess the find, and to determine whether the resource requires further study. Potentially significant cultural resources could consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including structural remains, historic dumpsites, hearths and	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.5 Cultural Resources (Continued)		
Historical and Archaeological resources	middens. Midden features are characterized by darkened soil, and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the City/applicant for significance under all applicable regulatory criteria. No further grading will occur in the area of the discovery until the City (CEQA Lead Agency) approves the measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will be donated to a qualified scientific institution approved by the City (CEQA Lead Agency) where they would be afforded long-term preservation to allow future scientific study.	Less than significant
Impact 4.5 c: Paleontological resource or site or unique geologic feature	**CR-4** In conjunction with the preparation of site-specific geotechnical reports for individual development projects, the applicant shall also have a site specific Paleontological assessment prepared to establish the probability that paleontological resources have the potential to occur on an individual project site. If the assessment results in a determination of moderate or high paleontologic sensitivity, a paleontologic monitoring program shall be implemented. This monitoring program shall be consistent with the current provisions of CEQA and with the guidelines of the Society of Vertebrate Paleontology.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.5 Cultural Resources (Continued)		
Paleontological resource or site or unique geologic feature	If the assessment determines that the project area has low paleontologic sensitivity, no program to mitigate adverse impacts to paleontologic resources will be necessary. This measure shall be implemented to the satisfaction of the Development Services Director.	Less than significant
Impact 4.5 d: Human remains	**CR-5** In the event of an accidental discovery or recognition of any human remains, PRC §5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall 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 County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of 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 PRC §5097.98, or	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.5 Cultural Resources (Continued)		
Human Remains	• 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 either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance: o The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission, o The descendant identified fails to make a recommendation; or o The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.	Less than significant
Section 4.6 – Geology and Soils		
Impact 4.6 a: Seismic Effects	**GEO-1** Final grading plans for individual development projects proposed within the CHCC project area shall be reviewed by a professional geologist to determine whether additional geotechnical studies (possibly including supplemental subsurface investigation, soil expansion potential, ground failure, differential settlement, and geotechnical analysis) may be necessary to provide detailed recommendations that are appropriate for the grading and construction proposed for the types of development projects being proposed (e.g. single family residential, retail commercial, office buildings).	

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.6 – Geology and Soils (Continued)		
Seismic Effects	**GEO-2** Removal of Undocumented Fill: Where encountered during future grading at project development sites, these materials shall be excavated and replaced as properly compacted fill. These surficial fills vary in age and depth, and likely exist across much of the CHCC project area to various extents, including but not limited to the abandoned air strip, abandoned reservoir, and within the golf course. Debris such as pieces of asphalt, concrete, plant matter should be removed from the artificial fill during future grading within the property. **GEO-3** Re-evaluation of Documented Fill: Although not confirmed during the geotechnical due diligence assessment, it is possible that the artificial fill associated with the numerous vacant cut and fill pads within the project area (both in developed and undeveloped areas) were tested and documented during placement. Exhibit 4.6-5 shows the areas of the site containing vacant fill pads. Whether this is the case or not, it would be prudent to perform a geotechnical subsurface investigation in these areas to evaluate these fill soils if these pads are to be utilized for structural improvements. In addition, it is currently unknown whether or not these pads represent cut pads in structural late Pleistocene sediments, or documented fill pads. Fills and cuts also will likely occur associated with existing structures. Evaluation of these soils shall be considered for future proposed development on a project by project basis. **GEO-4** Overexcavation of Near-Surface Soils: The project area contains relatively loose soils in the near surface across most of the undeveloped portions of the project area including the vacant	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.6 – Geology and Soils (Continued)		
Seismic Effects	cut-fill pads. These loose soils are associated with historic human activity (dumping, minor grading): wind-blown sands, erosion, and near surface weathering. Therefore, in areas where these materials will not be completely removed as a result of design grading, the near-surface alluvium will require overexcavation and recompaction to mitigate excessive settlement and removal of deleterious material. **GEO-5** Cut/Fill Transitions: To mitigate the potential for differential settlement and to provide a relatively uniform bearing surface for proposed structures supported thereon, the cut portions of the building pads should be overexcavated and replaced as compacted fill. **GEO-6** Surficial Stability of Existing Fill and Cut Slopes: Numerous small to medium- sized fill and cut slopes exist within the project area. Since onsite soils consist largely of granular, non-cohesive sands and possibly gravelly sands, the fill slopes may be subject to erosion and would require overexcavation and recompaction.	
Impact 4.6 b: Soil erosion or loss of topsoil.	See Mitigation Measures in Section 4.3, *Air Quality* and Section 4.9 *Hydrology and Water Quality* for measures to control wind and water erosion.	Less than significant
Impact 4.6 c: Unstable Geologic Units or Soils	Mitigation Measures GEO-1 through GEO-6 would reduce impacts.	Less than significant
Impact 4.6 d: Expansive soils.	No mitigation measures are necessary.	Less than significant
Impact 4.6 e: Septic systems/alternative wastewater disposal systems	No septic systems or alternative wastewater disposal systems are proposed in the CHCCSP project area	No impact

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.7 – Greenhouse Gas Emissions		
Impact 4.7 a and b: Generate greenhouse gas emissions, either directly or indirectly, or conflict with a applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions	**GHG-1** Although with mitigation measures AQ-1 through AQ-14, future projects would exceed the SCAQMD draft threshold, the buildout scenario still meets the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard, compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction from BAU emissions.	No significant impact to global climate change
Section 4.8 – Hazards and Hazardous Materials		
Impact 4.8 a -c: Routine transport, use or disposal of hazardous materials/risk of upset	**HAZ - 1** Prior to development of a site in the CHCCSP project area, applicants for development of any site that has been documented in the Phase I ESA and/or subsequent EDR report (2013) as having a REC or a PEC within the project area shall be required to conduct a site specific Phase I ESA to determine if a potential significant impact exists. If the Phase I ESA concludes that there are hazardous materials on site, a Phase II ESA shall be conducted including soils testing. If test results are found to be positive for a potential impact, then a Site Remediation/Local Oversight Program shall be implemented to clean and detoxify the subject site prior to initial ground disturbance activities (e.g., grading).	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.8 – Hazards and Hazardous Materials (Continued)		
Routine transport, use or disposal of hazardous materials/risk of upset	**HAZ - 2** Prior to onsite development of sites not listed as having a REC or a PEC on site, the landowner/developer shall conduct a Phase I ESA that determines if contamination from pesticide and herbicide usage has occurred by taking soil samples at suspected former orchard grove sites. This measure also applies to sites where evidence of illegal dumping has occurred. Remediation, if required, shall occur prior to any site disturbing activities. **HAZ - 3** Prior to onsite development, applicants for development of any site documented in the Phase I ESA as having ASTs shall provide proof of documentation to confirm that ASTs have been placed within secondary containment units or have been removed. **HAZ - 4** Prior to onsite development, applicants for development of any site documented in the Phase I ESA as having USTs shall provide proof of documentation to the City's Building Official to confirm recent fit test documents that demonstrate no indications of a release. **HAZ - 5** Prior to demolishing any existing building(s), the landowner/developer shall conduct an inspection to assess existing building for asbestos containing materials prior to demolition, and if encountered, the material shall be abated prior to demolition by a qualified contractor in accordance with current local, State, and federal regulations. **HAZ - 6** Prior to onsite development, existing buildings found with soil drip lines shall be tested for lead-based paints, and if found to be positive, shall be removed and replaced with non, lead-based coated soil drip lines.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.8 – Hazards and Hazardous Materials (Continued)		
Routine transport, use or disposal of hazardous materials/risk of upset	**HAZ - 7** Prior to onsite development, transit pipes, if encountered in former orchard grove areas, shall be removed by the landowner/developer and disposed of in accordance with current regulations. **HAZ - 8** Prior to onsite development, all existing transformers, to be removed, shall be conducted by a licensed contractor or utility agency responsible for transformer maintenance. **HAZ - 9** Prior to onsite development, the landowner/developer shall remove all miscellaneous trash debris and dispose of it in accordance with current regulations. Areas underneath debris accumulation piles shall be re-inspected for staining and possible hazardous waste material. **HAZ - 10** During onsite development, if a septic tank is encountered, the landowner/developer shall provide for the removal and disposal of septic tank(s) in accordance with current regulations. **HAZ - 11** Adherence to mitigation for air quality to reduce construction related emissions during development of projects in Planning Area 24 would reduce impacts to less than significant levels when construction activities can be limited either by limiting duration of activities or number of pieces of equipment in simultaneous use such that emissions thresholds are not exceeded. Prior to commencement of grading activities in Planning Area 24, the applicant shall conduct a project specific air quality analysis to determine how to achieve this reduction in emissions.	Less than significant
Impact 4.8 d: Hazardous materials sites.	Application of Mitigation Measures HAZ-1 through HAZ-10 would reduce impacts.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.8 – Hazards and Hazardous Materials (Continued)		
Impact 4.8 e-f: Conflicts with public airports or private air strips	**HAZ - 12** Prior to development of projects within Planning Areas 16, and 19 through 24, site plans, including lighting plans must be submitted to the County of San Bernardino Land Use Services Department who will be responsible for coordinating with the ARMC administration to ensure no impacts to the ARMC or the helicopter landing pads occur. In addition, emergency access to and from the ARMC site must also be considered in the planning of future development projects in these planning areas. Site plans must include proposed building setbacks from property lines and show the distance between the ARMC helicopter landing pads and proposed buildings. Lighting and landscape plans must also accompany the site plans. The County shall provide input to proposed plans to ensure compatibility between proposed land uses within these planning areas and the ARMC's ability to provide safe ingress and egress of helicopters, and emergency vehicles. **HAZ-13** In order to ensure land use compatibility between future uses in adjacent planning areas, or adjacent uses within planning areas, applicants for future development projects within Planning Areas 5, 9, 16, and 24 (planning areas that include sensitive receptors or will in the future), shall plan their sites to consider proximity to residential neighborhoods and Slover Mountain High School. This may require greater setbacks from property lines, consideration of the location of emergency access points, location of HVAC equipment, location of storage tanks or storage buildings. All new projects in the CHCCSP project area will be subject to site plan review and approval by the Development Services Director or his/her designee.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.8 – Hazards and Hazardous Materials (Continued)		
	HAZ - 14 For all businesses that generate medical waste, each business shall register with the San Bernardino County Department of Environmental Health as a medical waste generator and prepare/implement a Medical Waste Management Plan (MWMP) as required under the California Medical Waste Management Program. The Department of Environmental Health, as the Local Enforcement Agency (LEA) for the State is responsible for approving the MWMP as well as conducting inspections of these facilities.	
Impact 4.8 g: Adopted emergency response plans or emergency evacuation plans	Mitigation Measure HAZ-12.	Less than significant
Impact 4.8 g: Wildland fires.	No mitigation measures are necessary.	Less than significant
Section 4.9 – Hydrology and Water Quality		
Impact 4.9 a and f: Violate water quality standards or waste discharge requirements (WDRs) and degrade water quality.	**HWQ-1** Future projects developed in the CHCCSP project area shall be subject to the development standards set forth in the Specific Plan including the development and implementation of Landscape Management Plans (LMPs) for landscaped areas with the goal of reducing potential discharge of herbicides, pesticides, fertilizers, and other contaminants to local waterways. All contractors involved in project-related landscaping conducted during individual phases of development, as well as maintenance of landscaping following project completion, shall complete their work in strict compliance with the LMP. Project developers shall be responsible for ensuring that requirements of the LMP are provided to and instituted by future project tenants following project completion.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.9 – Hydrology and Water Quality (Continued)		
Violate water quality standards or waste discharge requirements (WDRs) and degrade water quality.	A licensed landscape architect or architectural firm with experience in methods to reduce or eliminate the use of landscape chemicals that could cause adverse effects to the environment shall prepare the LMP. At a minimum, an LMP shall: • Require that pesticides and fertilizers not be applied in excessive quantities, and only applied at times when rain is not expected for at least two weeks, in an effort to minimize leaching and runoff into the storm drainage system. • Encourage the use of organic fertilizers and mulching of landscaped areas to inhibit weed growth and reduce water demands. • Utilize native, perennial, drought-tolerant species of vegetation to minimize irrigation needs. **HWQ-2** Because the project area will be developed by a number of project proponents and not as one development project, each project proponent must provide a hydrology/ drainage study for each site being developed or redeveloped. Therefore, on a project by project basis, each project proponent shall provide a detailed engineering design for a project site and show how the site will be connected to the CHCCSP storm drain system to refine the design currently shown in the Exhibit 4.9-3 prepared by Hall and Foreman, August 2013.	Less than significant
Violate water quality standards or waste discharge requirements (WDRs) and degrade water quality.	The facilities shall be sized to meet current requirements based on proposed CHCCSP land uses to the satisfaction of the City Engineer.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.9 – Hydrology and Water Quality (Continued)		
Impact 4.9 b: Deplete groundwater supplies	Compliance with requirements of the Water Supply Assessments prepared for the CHCCSP project area will ensure that impacts to water supply are less than significant.	Less than significant.
Impact 4.9 c-e: Substantially alter existing drainage patterns	Application of Mitigation Measures HWQ-1 and HWQ-2 would reduce impacts.	Less than significant.
Impact 4.9 g - h: Flood hazards.	The project area is not within a FEMA designated flood zone. No mitigation measures are required.	No Impact
Section 4.10 – Land Use		
Impact 4.10 a: Physically divide an established community.	No mitigation measures are required.	Less than significant.
Impact 4.10 b: Conflict with a land use plan, policy, or regulation	**LU-1** When projects are proposed that would site Business Park and Residential land uses in planning areas that are adjacent to the City of Rialto's Gateway Specific Plan project area (planning areas 1, 2, 3, 4, 5, and 10), future developers shall coordinate with the City or Rialto in order to ensure that future land uses in adjacent planning areas (F-C, R-C, I-P and O-P) are considered and that if necessary, special setback and screening requirements are identified.	Less than significant.
Impact 4.10 c: Conflict with any habitat conservation plan or natural community conservation plan.	See discussion in Impact 4.4 e and f above.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.11 – Mineral Resources		
Impact 4.11 a: Loss of availability of a known mineral resource	No mitigation measures are required.	Less than significant
Impact 4.11 b: Loss of availability of a locally-important mineral resource recovery site	No mitigation measures are required.	Less than significant
Section 4.12 – Noise		
Impact 4.12 a and d: Generation of noise levels in excess of established standards	**N-1** Control of Construction Hours – All construction activities should be limited to the hours between 7:00 AM and 7:00 PM Monday through Saturday. Construction and demolition should be prohibited on Sundays or national holidays. **N-2** In addition to implementation of Mitigation Measure N-1, the following mitigation measures should be implemented whenever construction activities occur within 1,500 feet of the hotel and residential land uses located between Valley Blvd and the I-10 Freeway; the Colton Golf Club (if in operation); the residential properties, the church and the Rialto City Park all located along San Bernardino Avenue; the Rialto Retirement Home, Vista Cove Care Center and the Cathedral of Praise Church all located near Riverside Drive; the San Bernardino Social Services Building; the Arrowhead Regional Medical Center; the Hermosa Gardens Cemetery; Slover Mountain High School; the residential land uses located along Hermosa Avenue, and adjacent to planning areas set aside for permanent habitat (planning areas 3, 6, 11 and 18) as well as the habitat set aside as part of the HCP within the Cemetery property. **a)** All construction contractors shall limit haul truck deliveries to the same hours specified for construction equipment (7:00 AM and 7:00 PM Monday through Saturday).	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.12 – Noise (Continued)		
Generation of noise levels in excess of established standards	b) To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings and should avoid using alleyways adjacent to said uses. c) All construction contractors shall use power construction equipment with state-of-the-art noise shielding and muffling devices. d) During all project site excavation and grading on any site in the CHCCSP project area, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. e) All construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest a project site during all project construction. f) All construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest a project site. **N-3** The use of vibratory equipment shall be avoided within 70 feet of existing vibration-sensitive land uses (residential, habitat, ARMC). **N-4** If vibratory equipment must be used within 26 feet of an existing structure vibration monitoring shall be conducted and work shall be halted and re-evaluated if vibratory levels near 0.20 PPV which is the standard established to protect structures.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.12 – Noise (Continued)		
Generation of noise levels in excess of established standards	**N-5** Prior to issuance of building permits for non-residential land uses within planning areas 5, 9, 16, 21, 22, 23 and 24, all project proponents shall prepare a detailed noise study that shall be prepared to ensure that these sources do not exceed 55 dBA (Leq) and 75 dBA (Lmax) during the daytime (7:00 AM to 10:00 PM), and 45 dBA (Leq) and 65 dBA (Lmax) during the nighttime (10:00 PM to 7:00 AM). The assessment shall be prepared by a qualified acoustical engineer and shall document the noise generation characteristics of the proposed equipment and the projected noise levels at the nearest use. Compliance with these levels shall be demonstrated and any measures required to comply with the Noise Ordinance will be included in the project plans. The report shall be completed and approved by the City prior to issuance of building permits. **N-6** New non-residential development shall be constructed with roof-ceiling assemblies that make up the building envelope to have an STC of at least 50 and exterior windows must have minimum STC of 30 where sound levels at the property line regularly exceed 65 decibels. This measure shall apply to new non-residential land uses proposed along Valley Boulevard and Pepper Avenue. This measure would reduce interior noise levels to acceptable levels and mitigate any impact to less than significant. Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings are exempt from this measure. **N-7** Prior to issuance of building permits for residences in residential planning areas located along San Bernardino Avenue and Wildrose Avenue (planning areas 2, 4, 7, and 13) shall prepare detailed noise	Less than significant

	assessments showing that noise levels in those areas will not	

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.12 – Noise (Continued)		
Generation of noise levels in excess of established standards	exceed the 65 CNEL outdoor noise criteria and the 45 CNEL indoor noise standard. The noise assessment shall be prepared by a qualified acoustical consultant and shall document the sources of noise impacting the areas and describe any measures required to meet the standard. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits.	Less than significant
Impact 4.12 b: Groundbourne noise or vibration during construction and operation.	Application of Mitigation Measures N-1 through N-3 would reduce impacts.	Less than significant
Impact 4.12 c: Permanent increase in ambient noise levels	Application of Mitigation Measures N-3 through N-7 would reduce impacts.	Less than significant
Impact 4.12 e and f: The proposed project is not located within an airport land use plan, is not within two miles of a public airport or private airstrip and would not expose people residing or working in the project area to excessive noise levels.	No mitigation measures are necessary.	Less than significant
Section 4.13 – Population and Housing		
Impact 4.13 a: Population growth	No mitigation measures are necessary.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.13 – Population and Housing (Continued)		
Impact 4.13 b: Displace substantial numbers of existing housing or require the construction of replacement housing.	No mitigation measures are necessary.	Less than significant
Section 4.14 – Public Services		
Impact 4.14 a: Fire Protection.	**PS-1** In order to provide adequate fire protection coverage for the CHCCSP project area, equipment and staffing apparatus from Station 212 shall be relocated to a new, fully equipped facility within the project area or in close proximity to maintain adequate response time. In order to implement the relocation of Station 212 and staff a paramedic squad the following is recommended: • Relocate fire station 212 from its current location at 1511 North Rancho Avenue to a location, ideally on Olive Street between Meridian Street and North Jackson Street; • Include a purpose-built EOC in the relocated fire station; and • Hire six firefighter paramedics to staff a paramedic squad daily with two personnel. **PS-2** Prior to occupancy of any project buildings, all structures shall be equipped with the most reliable, commercially available fire suppression and alarm technology as required under the Uniform Building Code (UBC) standards and approved by the City of Colton Fire Department. The project applicant shall be responsible for maintaining these systems during project operations.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.14 – Public Services (Continued)		
Fire Protection	Furthermore, if the call load for fire inspections increases beyond fire inspection sustainability (as indicated in annual reports) for the CHCCSP, a Fire Inspector shall be provided.	Less than significant
Police Protection	**PS-3** In order to improve the service ratio for the Police Department, a substation facility shall be provided within the CHCCSP area. Development impact fees shall be allocated by the City of Colton in order to provide additional officers, support personnel and new equipment for said substation. The timing of the development of this substation will be determined in consultation with the Police Department.	Less than significant
Schools and Libraries	**PS-4** Each developer proposing a new project, or the substantial redevelopment of a project site shall pay Development Impact Fees for all Public Services (Fire, Police, Schools, Libraries, Parks) as determined by the Community Development Director or his/her designee.	Less than significant
Parks and Recreation	Application of Mitigation Measure PS-4 will be implemented to help reduce impacts; however, residual impacts will still be significant.	Significant and Unavoidable Project and Cumulative
Section 4.15 –Traffic and Circulation		
Impact 4.15 a and b: Increase in traffic that would conflict with applicable plans, ordinances or policies	**TC – 1** Because development projects in the CHCCSP project area will be submitted by a number of different project applicants, the City's Public Works Department will be responsible for developing a fair share fee program for the purpose of funding for the necessary improvements identified in the CHCCSP Traffic Impact Study. The program shall specifically identify the nature, location, timing and cost of all improvements necessary to ensure that significant impacts are all adequately addressed and mitigated and the fail share program shall require the implementation of identified	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.15 – Traffic and Circulation (Continued)		
Increase in traffic that would conflict with applicable plans, ordinances or policies	improvements at the appropriate time. Specific improvements include: a. Construct Pepper Avenue adjacent to the project from San Bernardino Avenue to the projects south boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development. b. Construct Meridian Avenue adjacent to the project from the north project boundary to Valley Boulevard at its ultimate half-section width as a Collector Street including landscaping and parkway improvements in conjunction with development. c. Construct San Bernardino Avenue adjacent to the project from the projects west boundary to Meridian Street at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development. d. Construct Valley Boulevard adjacent to the project from the projects west boundary to the projects east boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development. e. The project site should provide sufficient parking spaces to meet City of Colton parking code requirements in order to service on-site parking demand. f. On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.15 – Traffic and Circulation (Continued)		
Increase in traffic that would conflict with applicable plans, ordinances or policies	g. Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Colton standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.	Less than significant
Impact 4.15 c: Changes in air traffic patterns	No mitigation measures are necessary.	Less than significant
Impact 4.15 d: Increase hazards due to a design feature.	No mitigation measures are necessary.	Less than significant
Impact 4.15 e: Emergency access	**TC – 2** Prior to development of projects in planning areas within 28, 29, 31, 32, and 35 (i.e. planning areas in closest proximity to the ARMC) or development of road and intersection improvement plans in those planning areas, site plans including circulation plans must be submitted to the County of San Bernardino Land Use Services Department (LUSD). The LUSD will be responsible for coordinating with the ARMC administration to review the plans for potential impacts that could adversely affect the operation of the ARMC. Site plans must include proposed points of ingress and egress, show how intersections will be controlled, and show where roads that access the ARMC would be improved. The County shall provide input and require revisions to proposed plans to ensure compatibility between proposed land uses and roadway improvements within these planning areas. LUSD and ARMC administration would also review plans to assess impacts to the ARMC's ability to provide safe ingress and egress of helicopters.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.15 – Traffic and Circulation (Continued)		
Impact 4.15 f: Alternative transportation	**TC – 3** The City of Colton, Omnitrans and project applicants shall coordinate the necessary road and site improvements related to transit stops, road improvements along bus routes, and any other improvements that may affect transit in the CCCSP project area. This shall be accomplished through the City's Development Review process when projects are proposed along existing or future bus routes identified by Omnitrans. **TCS - 4** In addition, the City of Colton requires new development projects to provide bicycle storage facilities. Because of the unique nature of the proposed mixed-use project, the CHCCSP would require applicants for future non-residential projects to provide a bicycle parking study that analyzes the specific project need for bicycle parking and storage. The study shall identify where this bicycle storage would be provided in each component of the project to meet the intent of the City Zoning Ordinance. The implementation of this project design feature would result in less than significant related to bicycles as it actually would encourage greater bicycle usage.	Less than significant
Section 4.16 – Utilities and Service Systems		
Impact 4.16 a: Exceed RWQCB wastewater treatment requirements	No mitigation measures are necessary.	Less than significant
Impact 4.16 b: Construction of water or wastewater treatment facilities or expansion of existing facilities.	No mitigation measures are necessary.	Less than significant

Table 2-4: Summary of Project Impacts and Mitigation Measures (continued)

Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 4.16 – Utilities and Service Systems (Continued)		
Impact 4.16 c: Sufficient water supplies.	No mitigation measures are necessary.	Less than significant
Impact 4.16 d: Impact the existing landfill capacity.	**USS-1** Prior to the issuance of demolition permits, each project applicant shall submit a recycling plan to the City of Colton identifying the procedures by which construction and demolition would be salvaged and recycled to the maximum extent feasible. The plan shall include proof that a construction and demolition debris recycler is under contract to the applicant to perform this work.	Less than significant
Impact 4.16 e: Energy consumption.	Compliance with applicable sections of the California Green Building Standards.	Less than significant

Important considerations for an alternatives analysis are noted here (as stated in CEQA Guidelines Section 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.

2.5.1 Alternatives Considered and Rejected

There are two plans that will govern the CHCCSP project area in the future: (1) the Specific Plan; and (2) the West Valley Habitat Conservation Plan (HCP). Therefore, the selection of alternatives considered for analysis must reflect both plans. The boundary of the CHCCSP project area and the West Valley HCP Plan area are similar with the exception of the following areas:

- The CHCCSP project area boundary extends south of Valley Blvd to the I-10 Freeway and does not include any land south of the freeway. The CHCCSP project area boundary does not include the ARMC property or the Hermosa Gardens Cemetery.
- The West Valley HCP plan area boundary does not extend south of Valley Blvd but does include 5.8 acres of non contiguous area south of the I-10 freeway along a segment of Slover Avenue and does include the ARMC property, Hermosa Gardens Cemetery, and existing conservation areas.

2.5.2 Alternatives Considered in the NEPA Environmental Assessment

The first set of alternatives considered and rejected from further analysis is related to the conservation of Delhi Sands Flower-loving Fly (DSF) habitat. The City has initiated a City-wide effort to conserve DSF habitat in accordance with US Fish and Wildlife Service's DSF recovery plan efforts. The USFWS's Recovery Plan (USFWS 1997) criteria for this species call for the permanent protection of at least four populations of DSF in the Colton Recovery Unit, two to the north and two to the south of the I-10 Freeway. The Colton Recovery Unit is shown in Exhibit 4.4-1, *Delhi Sands Soils*, in Section 4.4, *Biological Resources*. The West Valley HCP focuses on preserving populations north of the I-10 Freeway. Exhibit 4.4.5, *Preserve Management Units*, in Section 4.4, shows the areas north of the freeway that will be preserved under the HCP's management strategy.

The Environmental Assessment prepared for the West Valley HCP under the National Environmental Policy Act (NEPA) for the US Fish and Wildlife Service, identified alternatives that were considered

and rejected. These are briefly described here. The preferred alternative has been incorporated into the CHCCSP and is not evaluated as a separate alternative here.

1. Inclusion the City's DSF Planning Effort into the Larger San Bernardino County MultiSpecies Habitat Conservation Plan.

This was to include the City's DSF habitat conservation planning in a larger San Bernardino County valley-wide Multi-species Habitat Conservation Plan (MSHCP). The County of San Bernardino had intended to prepare a valley-wide MSHCP that would focus on the conservation of several species and associated habitats within the valley region of the County; generally along the Interstate 10 Freeway corridor between the Riverside/San Bernardino boundary on the south and the foothills of the San Gabriel and San Bernardino mountain ranges on the north. Similar large MSHCPs have been developed in western Riverside County and the Coachella Valley. Such an MSHCP for San Bernardino County would eventually allow the County and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing State and Federal requirements of the ESA. Although the County had initiated discussions with the Service and negotiated a memorandum of understanding (MOU) with most of the cities in the valley, no significant progress on preparing a valley-wide MSHCP has been made, to date and Federal funding set aside by USFWS for this program has been withdrawn. There are no current plans by the County to resume this planning effort. In order to provide some certainty in addressing endangered species issues within the City boundaries and a limited number of County areas, the City feels it is imperative that it initiate its own HCP specifically for DSF rather than wait for the County to resume its efforts. If the County of San Bernardino resumes its efforts to prepare a valley-wide MSHCP, the City of Colton will coordinate its efforts with the County MSHCP to the extent practicable.

2. Permit Issuance with Offsite Conservation.

Under this alternative avoidance and minimization measures would be the same or similar to those occurring under the preferred alternative which is the issuance of an Incidental Take Permit with the Implementation of the HCP. Note: these measures are mitigation measures outlined in EIR Section 4.4 Biological Resources. Under this alternative future project proponents would mitigate for the take of DSF and its habitat offsite to the extent possible. Credits would be purchased from the Colton Dunes Conservation Bank (Bank) located south of Interstate 10 in the City of Colton. The Bank was established by Vulcan Materials, Inc., and approved by USFWS in 2005 as a mitigation bank for DSF. This alternative was considered to be inferior to the preferred alternative because the DSF habitat located within the West Valley HCP area consists of high and to a lesser extent medium quality occupied habitat adjacent to existing conservation areas, and the DSF populations located in the West Valley HCP area are considered critical to the conservation of the species. In addition, given the number of acres to be mitigated and the mitigation ratios for different types of habitat (i.e., high,

medium, and low quality), purchasing of bank credits in lieu of onsite conservation is beyond the financial resources of the City. The fee changed by the Bank is about $250,000 per acre so the cost to the City would be at least $12,750,000 if all of the mitigation occurred offsite at the Bank. For these reasons, the alternative of mitigating DSF impacts resulting from the proposed HCP through the purchase of credits at the Colton Dunes Conservation Bank was eliminated from further study in the NEPA EA. This alternative was also not considered in the EIR because it represented a more intense alternative, by allowing an additional 50 acres of land to be developed with urban uses.

3. No Permit Issuance and No Comprehensive City-Initiated HCP Implementation

This alternative essentially represents existing conditions or status quo because it assumes that no HCP would be developed for the City of Colton north of the I-10 Freeway. This alternative, which was considered in the NEPA EA for the HCP, has been incorporated into the analysis of the No-Project Alternative evaluated below.

Alternatives 1 and 2 were not considered as alternatives for further evaluation in the EIR because (1) there is no San Bernardino County MSHCP; and (2) permit issuance with off-site conversation would not likely be feasible for most future project applicants when the conservation bank is charging fees of $250,000 per acre. Alternative 3 is considered in the EIR as the no project – development under the Existing WVSP alternative because it represents existing conditions under the adopted WVSP.

2.5.3 Alternatives Considered and Rejected Under CEQA

Alternative Location

For an alternative location to be feasible to support the proposed CHCCSP, it would need to meet the following criteria:

- Be located within the limits or the sphere of influence of the City of Colton.
- Contain a minimum of 323 acres (developable area minus conservation areas), with the acreage being either contiguous or separated only by streets.
- Be designated for commercial, office, or mixed-uses by the City of Colton.
- Be under the ownership of either developing applicants or the City of Colton.

Larger areas in the City of Colton or adjacent unincorporated areas that are currently vacant or sparsely developed include areas in the Agua Mansa Industrial Corridor Specific Plan project area and the Santa Ana River Redevelopment Specific Plan project area. Both of these areas are identified for industrial uses such as large distribution/warehouse or manufacturing facilities and do not have the infrastructure to support the type of mixed use development proposed in the CHCCSP project area that would create a sustainable community as that envisioned in the CHCCSP.

The Reche Canyon Specific Plan located in the southeastern portion of the City is designated for residential subdivisions similar to the types of developments currently developed in that area.

The Cooley Ranch Planned Community area would allow similar uses as those envisioned in the CHCCSP project area, however, this area is already a planned community with a mix of high density residential and commercial retail, office, and light industrial uses.

Adjacent to the City of Colton is approximately 772 acres associated with the California Portland Cement Company. This area has been the site of a successful mining and processing facility since the 1880's. Future use of this area is under private ownership and therefore, is not available as an alternative site for the CHCCSP.

Therefore, no area in or adjacent to the City of Colton is available to implement the CHCCSP to the size and intensity set forth in the Specific Plan.

2.5.4 Alternatives Considered For Analysis in the EIR

After consideration of alternatives, two alternatives to the proposed CHCCSP were selected for further analysis. Exhibit 2-1, *Existing Land Us Designations*, and Exhibit 2-2, *Alternative Land Use Plan*, show the alternatives to the CHCCSP. Table 2-4, *Comparison of the Proposed CHCCSP to the Alternatives,* summarizes the findings of the alternatives analysis.

No Project – Development Under the Existing WVSP Alternative

CEQA Guidelines Section 1512.6(e)(1) and (2) state that a "no project" alternative shall be evaluated but that the no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that. The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

The Notice of Preparation for the proposed amendment to the WVSP (adopted in 1996) was published in 2008 and an EIR was prepared for that project. However, due to the downturn in the economy and the presence of DSF habitat in the project area, the specific plan amendment was not approved and the EIR for that project was not certified. To date, no new projects have been developed in the project area, and existing conditions today are similar to those in the project area in 2008. Therefore, the no project alternative analysis discusses existing conditions at the time the environmental analysis commenced for the CHCCSP which is an amendment to the adopted 1996 WVSP. That environmental analysis commenced in May 2013.

As allowed under CEQA Guidelines Section 15126.6(e)(!)(A), the no project alternative is the continuation of the existing WVSP into the future. Thus the evaluation of the no project alternative is the evaluation of projected impacts that would occur under the existing WVSP. Therefore, under this alternative the project area would remain in its existing condition, and the proposed CHCCSP would not be implemented. The current specific plan would remain in effect as shown in Exhibit 2-1, *Existing Land Use Designations*.

In order to develop a site in the project area, individual property owners are required to conduct protocol surveys for DSF (for two consecutive years) and if DSF individuals or suitable habitat for DSF is found on a project site, the property owner must mitigate for the loss by either setting aside a portion of the property in conservation or by purchasing credits in the Mitigation Bank. As discussed previously under Alternatives Considered and Rejected, the cost of an acre of mitigation land is $250,000. Therefore, the City determined that the most appropriate course of action was to initiate the HCP process for the area north of the I-10 freeway.

Under the No Project - Development Under the Existing WVSP Alternative (no project alternative), no amendment to the WVSP would be implemented and existing conditions in the project area would likely remain unchanged in the near term. This alternative also assumes that no West Valley HCP will be adopted by USFWS. Development could occur under the existing WVSP but because the existing specific plan does not include a project area-wide HCP for DSF, it would remain the responsibility of individual project applicants to negotiate Incidental Take Permits for their project sites. This has been the single most deterrent to development in the project area. Therefore, this alternative can be considered the no project alternative since very little development has occurred in the planning area since adoption of the WVSP in 1996. Under this alternative, DSF habitat would likely continue to deteriorate due to blighted conditions and because development of small individual conservation areas similar to those existing in and adjacent to the project area have been shown to be less desirable to USFWS because it results in fragmentation of the habitat and makes it less likely that DSF can survive and thrive. In addition, vacant parcels have been used for illegal dumping, homeless encampments and unauthorized off-road use. Development of some site could occur, particularly those that are already developed with urban uses by the property is either not being used or is underutilized. These properties would not be anticipated to require consultation with USFWS if it can be established that there is no DSF habitat on site.

Under existing conditions there are four projects currently proposed for development:

- A new service station and shopping, a restaurant complex at the southwest corner of Valley Boulevard and Pepper Avenue;
- The adaptive reuse of the vacant Moss Brothers Dealership on Valley Boulevard west of Pepper Avenue;

- A health club/retail center at the northwest corner of Valley Boulevard and Pepper Avenue;
- Reuse of the former "King is Coming" television production studio at the southwest corner of San Bernardino Avenue and Pepper Avenue, as the Center for Employment Training.

The first two projects are proposed on sites that are currently developed and are outside the West Valley HCP boundaries and thus are not subject to the USFWS requirements related to conservation of DSF habitat. The third project is proposed on undeveloped property where two consecutive years of protocol surveys have been conducted for DSF with negative results.

The WVSP project area includes 13 planning areas for Open Space, Business Industrial Park, Regional Retail, and Hospitality/Retail/Medical Support. No residential uses were proposed. Open space uses consists of the existing 10-acre park at the intersection of San Bernardino Avenue and Eucalyptus Avenue; the 49-acre golf course on Valley Blvd; and the 30-acre cemetery east of Hermosa Avenue. The WVSP included the Arrowhead Regional Medical Center (ARMC) with a land use designation of Business/Industrial Park.

For the purposes of evaluating this alternative, 135 acres of the 402-acre WVSP project area could be developed in the future with the remaining properties already developed or that would be set aside in conservation. The breakdown is as follows:

- **215** acres have already been developed, including the ARMC site, existing roads, the golf course, public park, and approximately 50 percent of the cemetery.
- For planning purposes it is assumed that up **75** acres of the 127 acres identified as exhibiting habitat quality for DSF ranging from High to Low could ultimately be developed. Development would only occur after a project applicant undertakes the rigorous consultation process with the USFWS and issuance of an Incidental Take Permit.
- This leaves approximately **60** acres of developable land that is not encumbered by existing development or otherwise affected by DSF habitat. That is, these areas do not exhibit any habitat value according to the West Valley HCP.
- Properties that are already developed in the project area could be redeveloped with different land uses that could be more intense, including multiple story buildings. However, since this is speculative, redevelopment of existing developed properties was not considered in the evaluation of the no project alternative.

Development under the WVSP would consist of 60 acres that would not require consultation with USFWS for DSF, and an additional 75 acres after consultation with USFWS is completed and Incidental Take Permits are issued. Therefore, a total of 135 acres could be developed under the WVSP. The acreage is divided into two land uses spread around the planning areas where development would occur, Business/Industrial Park (115 acres) and Hospitality Retail/Medical Support (20 acres).

Using the same floor area ratio as was used to evaluate the proposed project of 0.25, a total of 1.25 million square feet of Business/Industrial Park (BIP) uses and 217,800 square feet of Hospitality Retail/Medical Support (HRM) could be developed. By contrast, buildout under the proposed CHCCSP would result in 275 residential units and up to 2.4 million square feet of non-residential land uses. The difference is approximately 929,850 square feet less non-residential uses than under the CHCCSP. For the purposes of this analysis, the difference has been rounded up to 930,000 square feet.

Reduced Retail/Retail Mixed Use, add Additional Residential and Open Space/Park Alternative

The second alternative considered in this analysis is similar to the original amendment to the WVSP proposed in 2008, that has been revised to reflect the conservation areas identified in the CHCCSP. This is because the mix of uses in the original specific plan amendment included 1,293 dwelling units along with a mix of non-residential land uses, thus providing more opportunities for residents to live, work and shop in a walkable community. Under this alternative, the existing golf course (west side of Planning Area 16) and the adjacent Planning Area 9 would be redesignated to Residential High (RES-H) which allows 18-25 dwelling units per acre. Using a median of 22 dwelling units per acre, this alternative would result in up to 880 new RES-H dwelling units for a total of 1,253 units, 40 units less than in the original proposed WVSP amendment. Exhibit 2-2, *Alternative Land Use Plan*, shows this alternative. This alternative adds an additional 6 acres of park space to Planning Area 12, and when added to the proposed 3.8 acres of park space in Planning Area 12 and the linear open space feature in Planning Area 14 at 0.6 acre, the proposed park space would be approximately 10.4 acres. This would replace the existing 10-acre George Brown Park currently located in Planning Area 13, which is identified for residential uses in the CHCCSP. When combined with the required Quimby fees that must be paid by new development, the significant impact to Public Services with regard to parks would be reduced to a less than significant level in this alternative.

2.5.5 Environmentally Superior Alternative

The environmental effects of each alternative in relation to the proposed project are summarized in Table 2-4. CEQA Guidelines Section 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 environmental impacts that are similar relative to the proposed project because both alternatives allow development of the project area.

The No Project – Development Under the WVSP would be environmentally superior for issues such as geology/soils/seismicity, noise, public services, and utilities and services systems because this alternative would result in less non-residential development and no residential development that would reduce the number of people occupying the site on a daily basis. In addition, because no demolition of existing structures was assumed in this alternative the amount of C&D solid waste

generated would be reduced. With no residential uses proposed, there would be fewer impacts on schools and parks and because there would be less development and no residential development, energy and water consumption would be anticipated to be lower. However, because development would still occur, this alternative would likely have similar impacts on aesthetics/light/glare, cultural resources, hazards and hazardous materials, hydrology and water quality, and mineral resources.

Impacts on the environment that would likely be greater include impacts on biological resources because there would be no comprehensive HCP developed that would set aside larger areas of DSF habitat in permanent conservation. Other impacts that would likely be greater are related to Land Use and Population and Housing because the WVSP does not implement the City's vision for the project area to restore the sense of community, vibrancy, and vitality of the small town atmosphere, incorporating a broad range of uses all within walking distance of one another. These include shopping, restaurants, entertainment, hospitality, offices, housing, parks, and open space. The vision also includes a new main street stetting, new employment opportunities that are more diverse than under the WVSP, and establishing a new strong and diverse economic base.

The Reduced Retail/Retail Mixed Use – Increased Residential and Open Space/Park Alternative would have similar impacts in most categories relative to the proposed project. This alternative provides the same conservation areas for DSF habitat, creates similar opportunities for high quality office, business, retail and hospitality uses and employment opportunities, and incorporates the Bus Rapid Transit options for people living working or visiting the area. This alternative contributes to the City's jobs/housing balance to a greater extent than does the proposed CHCCSP by providing a more diverse mix of land uses. This alternative would also eliminate the significant unavoidable impact on Public Services – Parks, and because the alternative offers a greater diversity in the mix of land uses than the proposed project by providing additional housing and increasing the opportunity for more City residents to live in a walkable pedestrian oriented community that would reduce residents dependence on motor vehicles, Alternative 2 better meets the City's objectives for the project area and is therefore considered to be environmentally superior.

Table 2-5 Comparison of the Proposed CHCCSP to the Alternatives

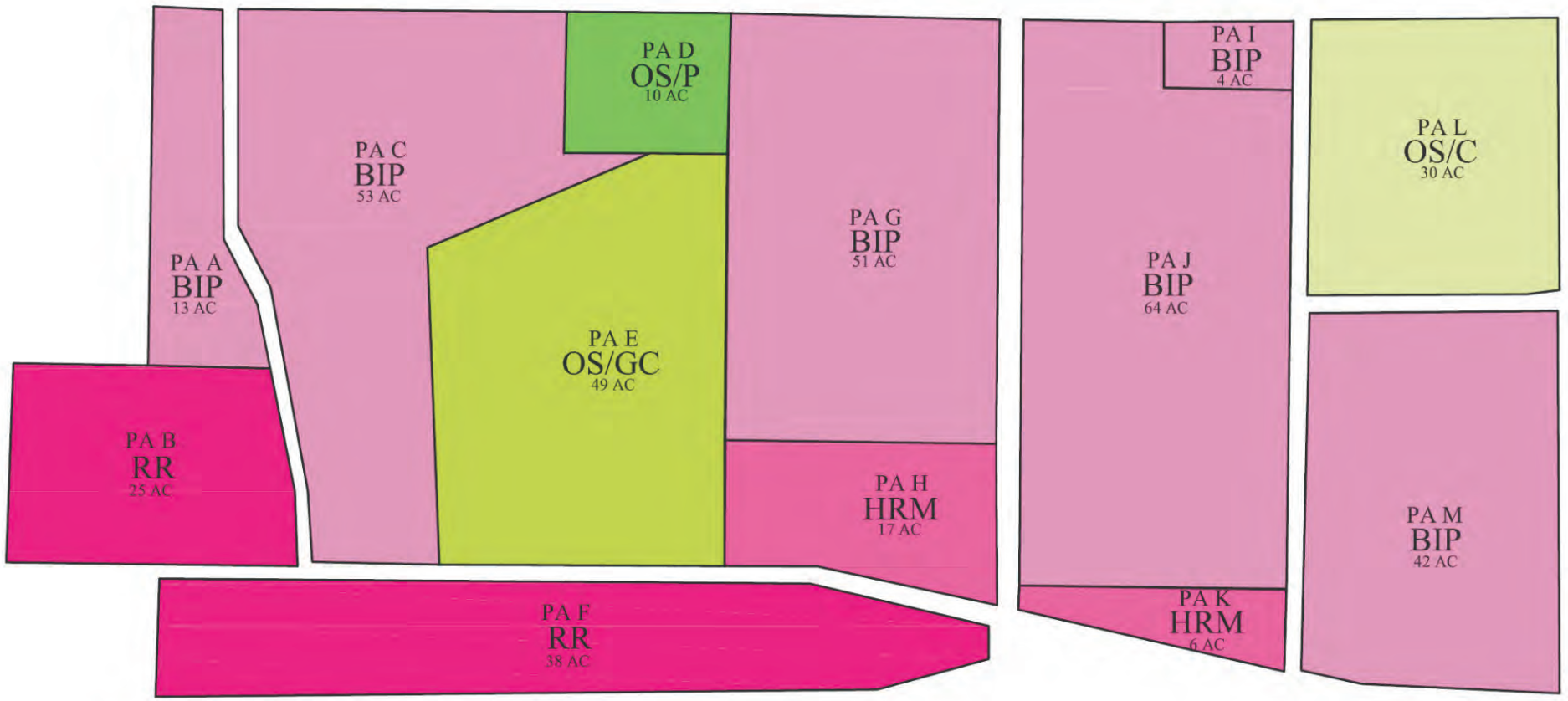
Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Aesthetics	Less Than Significant with Mitigation	Impacts would be greater due to the continuation of blighted conditions	Similar to Proposed CHCCSP
Air Quality	Significant Unavoidable Impact Project Related and Cumulative	Significant Unavoidable Impact Project Related and Cumulative	Significant Unavoidable Impact Project Related and Cumulative
Biological Resources	Less Than Significant with Mitigation	Greater impact on DSF and other sensitive species because there is no comprehensive HCP that would set aside large parcels of land that is suitable habitat for DSF	Similar to Proposed CHCCSP
Cultural Resources	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Geology and Soils	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Greenhouse Gasses	Less Than Significant with Mitigation	Less than the Proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential uses	Similar to Proposed CHCCSP
Hazards and Hazardous Materials	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Hydrology and Water Quality	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP

Table 2-5 Comparison of the Proposed CHCCSP to the Alternatives (continued)

Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Land Use	Less Than Significant with Mitigation	Would not meet the City's goals to create a Sustainable community	More diverse mix of land uses to better achieve the City's goals for a Sustainable Community that is pedestrian oriented and provides more opportunities to live, work in a walkable community
Noise	Less Than Significant with Mitigation	Less than the proposed CHCCSP because there are no residential land uses proposed	Similar to Proposed CHCCSP
Population and Housing	Less Than Significant with Mitigation	Greater impact because this alternative does not include a residential component and the City's Housing Element assumes that a portion of the City's future housing needs can be met by new residential units in the project area	Provides greater housing opportunities in a Sustainable Community that is pedestrian oriented and provides more opportunities to live, work in a walkable community
Public Services	Less Than Significant with Mitigation for most issues Significant Unavoidable impact to Parks	Less than the proposed CHCCSP because there would be no new residents to impact the school district, and the existing park would remain in place	Less Than Significant with Mitigation for most issues No Significant Unavoidable Impact on Parks

Table 2-5 Comparison of the Proposed CHCCSP to the Alternatives (continued)

Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Traffic and Circulation	Less Than Significant with Mitigation	Less than the proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential units	Similar to the proposed CHCCSP however, a greater number of dwelling units in the project area would likely reduce vehicle trips over the CHCCSP land use scenario
Utilities and Service Systems	Less Than Significant with Mitigation	Less than the proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential units	Similar to the proposed CHCCSP however, a greater number of dwelling units in the project area would increase energy and water consumption



LEGEND FOR EXISTING WVSP:

RR	Regional Retail
HRM	Hospitality Retail / Medical Support
BIP	Business / Industrial Park
OS/P	Open Space / Park
OS/GC	Open Space / Golf Course
OS/C	Open Space / Cemetary

Note: Planning areas J and L are not a part of the WVSPA project area.

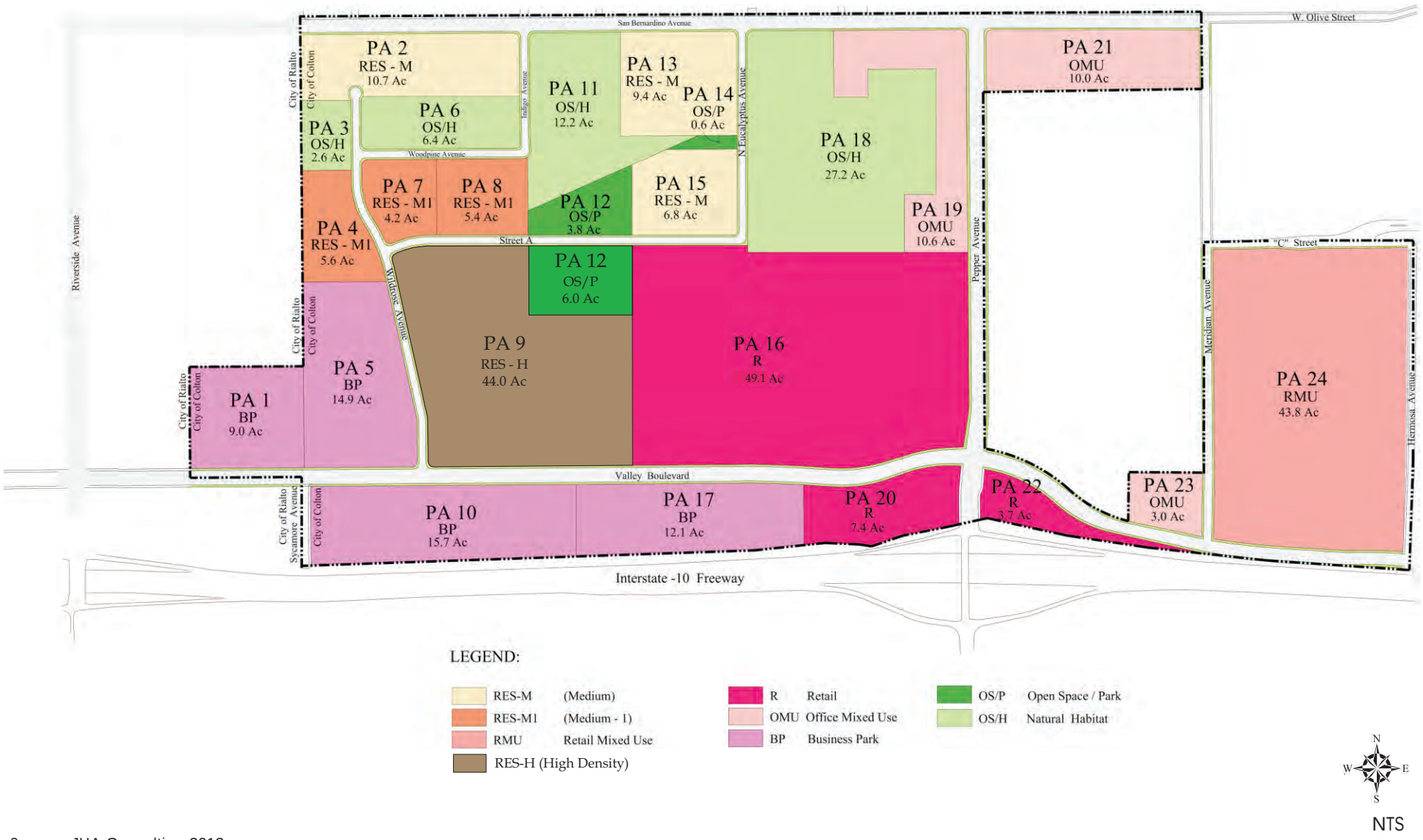
Source: JHA Consulting 2008

Not to Scale

The Altum Group

Existing Land Use Designations
CHCCSP Environmental Impact Report

Exhibit 2-1



Source: JHA Consulting 2013

The Altum Group

Alternative Land Use Plan
CHCCSP Environmental Impact Report

Exhibit 2-2

SECTION 3
Project Description

3.1 Overview

The project evaluated in this Environmental Impact Report (EIR) is the adoption and implementation of Colton's Hub City Centre Specific Plan (CHCCSP) by the City of Colton as an amendment to the West Valley Specific Plan (WVSP) adopted in 1996. The CHCCSP provides a roadmap for the physical development of properties in the CHCCSP project area including development and design guidelines that will be used by City Staff and elected officials to review, evaluate and process future development proposals in the project area.

This section includes all of the required elements for a Project Description as outlined in CEQA Guidelines 15124 including the location of the project area; a statement of objectives sought by the City in proposing the CHCCSP as an amendment to the WVS P; a general description of the project's technical, economic and environmental characteristics; a statement describing the intended use of the EIR; and a list of public agencies that must make decisions and/or issue permits for projects within the project area.

3.2 Project Location and Setting

3.2.1 Location of the CHCCSP Project Area

The CHCCSP project area is located within the City of Colton in San Bernardino County, California (Exhibit 3-1, *Regional Location*). The project site is composed of approximately 373 gross acres and is bordered by San Bernardino Avenue to the north, Interstate 10 to the south, Hermosa Avenue to the east, and on the west by the City of Colton boundary with the City of Rialto (Exhibit 3-2, *CHCCSP Project Vicinity*). The CHCCSP project area is made up of multiple parcels as identified by the County of San Bernardino's Office of the Assessor generally found in the northern ½ of Sections 23 and 24, Township 1 South (T1S), Range 5 West (R5W) and Section 19, Township 1 South (T1S) Range 4 West (R4W) at latitude 34° 4.395' N, longitude 117° 21.517' W at the approximate center of the project site.

The CHCCSP project area is in the West Subarea of the WVSP and is bounded by San Bernardino Avenue on the north, the City of Colton boundary with the City of Rialto on the west; the I-10 freeway on the south, Hermosa Avenue and the Union Pacific Railroad on the east. The project area is further defined as being approximately 373 acres of the West Subarea which consists of a total of 476 acres. The difference of 103 acres is the result of excluding the areas encompassed by the ARMC and the existing Hermosa Gardens Memorial Cemetery, uses expected to remain for the long term and that are compatible with the goals and policies of the City General Plan, and are compatible with the proposed mix of land uses identified in

the CHCCSP. Exhibits showing the project area are described in further detail below in Section 3.2.2, *Existing Conditions in the CHCCSP Project Area.*

3.2.2 Existing Conditions in the CHCCSP Project Area

The City of Colton is located in southern California that is characterized as a semi-arid Mediterranean climate with mild winters and warm summers. Most precipitation occurs as rainfall during the months of December through March, with occasional summer thunderstorms associated with monsoon conditions. The average annual precipitation in the City is 15.32 inches, which is distributed mainly during the winter and spring seasons with a maximum average of 3.70 inches received during the month of February. The coolest month of the year is January, with an average monthly low of 44° Fahrenheit (F). The warmest month is July, with an average monthly high of 95° F. Temperatures range from about 38 to 100 degrees Fahrenheit annually.

The surrounding terrain consists of a flat valley floor gently sloping downward from the San Bernardino and San Gabriel Mountains to the north toward the Santa Ana River on the south. The underlying soil is classified as Quaternary age alluvial (water) and eolian (wind) deposits. Groundwater is stored in Pleistocene deposits, at depths ranging between 100-200 feet below ground surface. Surface terrain elevation ranges from approximately 1,025 feet above mean sea level (msl) at the furthest southeastern corner of the project site to 1,145 feet above msl at the northern boundary of the project area just west and adjacent to the George Brown Park site at San Bernardino and Eucalyptus avenues. There is evidence of illegal dumping and transient camps that can be seen in the CHCCSP area with most camp sites clustered mainly along the I-10 easement and around the northern periphery of a golf course. Dumpsites are generally located near the transient camps with additional locations in areas that are more secluded from the local streets and accessed by dirt roads.

Exhibit 3-3, *Existing WVSP and Proposed* CHCCSP *Area Boundaries*, shows the original project area boundary for the WVSP. Only the westerly portion of the WVSP project area is the focus of the Specific Plan Amendment (CHCCSP); the area shown with a red cross-hatch pattern.

Exhibit 3-4, *Existing Land Uses* and Exhibit 3-5, *Existing Land Use Designations*, show the existing conditions in the WVSP project area, and land use designations for future uses if the project area develops under the existing WVSP.

Existing land uses are shown in greater detail on Exhibit 3-6, *Existing Land Uses – West Side of Project Area*, Exhibit 3-7, *Existing Land Uses – Central Project Area*, and Exhibit 3-8, *Existing Land Uses East Side of Project Area.* Each of the exhibits is labeled respectively and shows existing conditions in the project area from west to east. Major and local streets are shown on each of the exhibits.

Exhibit 3-6 shows the western portion of the CHCCSP project area and the relationship to the City of Rialto. A large portion of Area A is vacant land. Existing buildings include CSM Bakery Products, a

vacant warehouse structure, various commercial buildings, a hotel, and an office building occupied by the San Bernardino County Department of Social Services (Transitional Assistance Department). A combination of uses occur west of the corporate boundary in the City of Rialto's Gateway Specific Plan project area, including vacant land, commercial retail areas, a senior citizens center and residential uses associated with a senior care facility (see Section 3.1.3, Surrounding Land Uses). In addition, a new WalMart shopping center is proposed near the intersection of Riverside Avenue and San Bernardino Avenue in the City of Rialto.

Exhibit 3-7 shows the central portion of the CHCCSP project area delineated by the west side of the Colton Golf Club on the west and Pepper Avenue on the east. A significant portion of this area is also vacant land, as well as the golf course accessed from Valley Blvd and the George Brown Park and adjacent detention basin accessed from San Bernardino Avenue. The northwest corner of Pepper Avenue and Valley Blvd is vacant but immediately north are the McNelius Truck services and Latter Day Saints Family Services sites. There are a number of properties along the south side of Valley Blvd, including the vacant Moss Brothers dealership site, and used car lots on either side of this site. Other retail uses border the south side of Valley Blvd including a fast food restaurant and gas station. On the north side of Valley Blvd is the golf course and, a cluster of small buildings on Valley Blvd at Rexford west of Pepper Avenue. The Moss Brothers site (Planning Area 17) is under consideration as a commercial retail and office uses including the relocation of the County's TAD office from its current location on Woodpine Avenue (see Exhibit 3-6 for existing location).

Exhibit 3-8 shows the eastern portion of the CHCCSP project area. A major portion of the area directly east of Pepper Avenue is occupied by the County of San Bernardino's ARMC, and the Hermosa Gardens Cemetery; both outside the CHCCSP's project boundary, but within the WVSP West Subarea. Several development projects are being proposed within this portion of the project area. These include Valero Energy Corporation, which plans to develop a new service station and mini center comprised of food and retail shops at the southwest corner of Pepper Avenue and Valley Blvd. Valero plans to expand the footprint of its existing operation to include a remnant parcel from the realigned Valley/Pepper intersection. The former Colton Piano and Organ store (northwest corner of Meridian Avenue and Valley Blvd in Planning Area 24) is being redeveloped for medical office uses. Other proposed uses in the area being considered are a fitness club and retail center (Discovery Center) at the northwest corner of Pepper Avenue and Valley Blvd and a retail center (Planning Area 16). Reuse of the former "King is Coming" television production studio at the southwest corner of San Bernardino Avenue and Pepper Avenue is being proposed as the Center for Employment Training (Planning Area 19). Other current uses in the East Project Area include vacant land between Meridian Street and Hermosa Avenue, with commercial retail uses at the southeastern corner of the site. The Colton Joint Unified School District's Slover Mountain High School are located along Hermosa Avenue; as well as a Union Pacific Rail Road right-of-way and a 14-inch, high-pressure pipeline right-of-way (owned and operated by Kinder Morgan) located along the east side of Hermosa Avenue. Near the intersection of Hermosa

Avenue and C Street is a small cluster of single family homes.

3.2.3 Surrounding Land Uses

The CHCCSP project area is bounded on the south by the I-10 freeway and on the north by San Bernardino Avenue. North of San Bernardino Avenue is a series of single-family residential neighborhoods and an apartment complex at the northwestern corner of the intersection and to the west. A retail center with a supermarket is located at the northeast corner of Pepper Avenue and San Bernardino Avenue with residential neighborhoods to the east.

The ARMC and the Hermosa Gardens Cemetery are within the West Valley Specific Plan project area but are not a part of the CHCCSP project area. At the far eastern edge of the project area is a Union Pacific railroad right-of-way and the Kinder Morgan pipeline right-of-way.

The western edge of the CHCCSP project area borders the City of Rialto's Gateway Specific Plan project area. Exhibit 3-9, *Gateway Specific Plan and CHCCSP Land Uses*, shows the land use designations in each project area. Proposed development under the 366-acre Gateway Specific Plan, adopted in 1990, consists of mixed-use with retail uses along Riverside Avenue, freeway commercial (hotels, food services and auto services) along Valley Boulevard and light industrial parks in the western portion of the specific plan area. Land uses under the Gateway Specific Plan that border the CHCCSP project area consist of Office Park (OP), Industrial Park (IP) and Retail Commercial (R-C) and will border CHCCSP proposed land uses consisting of Business Park (BP), Residential Medium (RES-M), Residential Medium-1 (RES-M1) and Open Space Natural Habitat (OS/H).

3.2.4 History of Development in the Project Area

This section is based largely on the *Cultural Resources Assessment* prepared for the Environmental Assessment for the DSF Habitat Conservation Plan in January 2013. The *Cultural Resource Assessment* is included in Appendix D.

Portions of the project area appear to have been used for dry farming/grazing activities possibly as early as the early 20th century. These agricultural areas transitioned to residential uses as early as the 1950s, and were developed with the Colton Golf Club and Colton Recreational Lake in the 1960s. A large portion of the project area was the site of Morrow Field, an airfield built in 1942 by Howard Morrow Sr. of Morrow Aircraft. The airfield was built after Morrow's original airfield facilities were purchased by the military to become Norton Army Air Field (now the San Bernardino International Airport). While Morrow was unsuccessful in obtaining any military orders for its aircraft intended to be built at Morrow Field, Morrow did produce drop tanks and other aircraft components for the military during World War II. The remnants of the runway can still be seen in Exhibit 3-7 as a diagonal strip across the northerly boundary of the golf course.

During the 1950's and 60's, the runway was used as a drag strip for automobile enthusiasts. In the 1960's, Morrow built the golf course located to the south of the runway that is now the Colton Golf Club. Between the golf course and the former entrance road to the airfield (now known as Windrose Avenue) is an abandoned recreational area that featured a social club with a swimming pool, and a short-lived shallow lake on which water skiers were pulled with a cable surrounding a park area with picnic and barbeque sites. Morrow sold the airfield in 1968, which was abandoned by 1980. The location where the hanger stood was torn down for a commercial retail building (old Price Club site) and has since been converted to a food processing plant known today as CSM Bakery Products.

Commercial type structures began appearing in the project area in the 1950s primarily south of Valley Boulevard. Valley Boulevard originally ran unobstructed between Los Angeles and Redlands and was part of the original alignment of State Route 60. By the late 1980s most of the existing structures within the project area were in place except for the ARMC which was not developed until the mid 1990s and was the impetus for the West Valley Specific Plan adopted in 1996.

The residential structures located along the west side of Hermosa Avenue at C Street south of the cemetery date from the 1950s. Along the east side of Hermosa Avenue is a Union Pacific Railroad right-of-way and a 14-inch, high-pressure pipeline right-of-way owned and operated by Kinder Morgan. The pipeline is connected to the Colton North Station petroleum storage facility (2051 E. Slover Avenue), and currently transports fuel (diesel, jet fuel and gasoline) from west coast refineries to the Burlington Northern Santa Fe terminal in Barstow, Union Pacific Railroad terminal in Yermo, and to terminals within Nevada (Kinder Morgan, 2013).

At the corner of Olive Street and Hermosa Avenue is the Hermosa Gardens Cemetery, in place since approximately 1887. The cemetery currently uses approximately 16 acres of a 33.1-acre site leased from the City of Colton, the landowner. A portion of the cemetery, 6.5 acres, not currently developed has been set aside as part of the Habitat Conservation Plan (HCP) for the Delhi Sands Flower-loving Fly (see Section 3.2.5). The remaining 10.6 acres will still be used as part of the cemetery. The cemetery is within the boundary of the West Valley Specific Plan, but is not included as part of the CHCCSP project area.

During the downturn in the economy beginning in 2007, the Moss Brothers Ford Dealership located on approximately 11.7 acres on Valley Blvd, west of Pepper Avenue went out of business and the site has been vacant since. The City has received inquiries for the reuse of that site for commercial retail and office space. The most recent proposal would relocate the County's TAD office from its current location in Area A to one of the existing buildings, and use the second building for commercial retail uses. The proposal includes additional retail buildings and restaurants.

3.2.5 Environmental Sensitivities

The Delhi Sands Flower-loving Fly (DSF) (*Rhaphiomidas terminatus*) is the only federally listed species known to occur within the City of Colton north of the Interstate 10 (I-10) freeway. Section 4(f) of the federal Endangered Species Act (ESA) requires the development and implementation of recovery plans for all species listed as endangered or threatened unless it is determined that a plan will not further the recovery of the species. A recovery plan identifies and assigns priorities to actions required for the recovery of a species. The goal of recovery is to restore a listed species to the point where it is no longer endangered or threatened.

In the US Fish and Wildlife Service (USFWS) DSF Recovery Plan, areas known to be inhabited by the DSF or areas that contain suitable restorable habitat were grouped into three Recovery Units (RUs) based on geographic proximity, similarity of habitat, and potential genetic exchange: the Colton, Jurupa, and Ontario RUs. These are discussed in further detail in Section 4.4, *Biological Resources*. The occupied and restorable habitat in the RUs includes only those areas that contain Delhi series soils. All but two of the known populations of DSF are located in the Colton RU, and the Colton RU area includes the CHCCSP project area. Therefore, the City has consulted with USFWS and prepared a Habitat Conservation Plan (HCP) and an Environmental Assessment (EA) for the long-term conservation of suitable habitat for the DSF.

The plan is referred to as the West Valley HCP and when adopted will provide conservation and mitigation for impacts to the DSF from the following types of activities (collectively, Covered Activities) in the CHCCSP project area:

1. New commercial, residential, industrial, and agricultural and/or horticultural development.

2. Redevelopment programs and projects (reuse of existing developed sites in the Project Area).

3. Construction of public or public use facilities/structures, such as:
   a. Public roadways to their ultimate width as identified in the City's General Plan;
   b. Improvements identified in adopted Transportation Improvement Programs;
   c. Public utility infrastructure;
   d. Trails and public access facilities; and
   e. Other public facilities and projects identified in the City's General Plan.

4. Ongoing operation, use and maintenance of public and private facilities in the City.

5. Management of designated Conservation Areas, natural open spaces, or sensitive habitats.

6. Activities undertaken in response to natural disasters and other emergencies.

Exhibit 3-10, *On-Site Conservation and Development*, shows the properties that would be placed in conservation under the HCP, as well as the properties that are already in conservation, north of the I-10 freeway. The CHCCSP project area consists of approximately 373 acres of which 43.8 are proposed to be placed in long-term conservation under the HCP. An additional 6.5 acres of the cemetery would also be included for a total of 50.3 acres. This is in addition to the existing 4.5-acre conservation area along Eucalyptus Avenue in the CHCCSP project area, as well as another 8.8 acres in conservation associated with the ARMC and improvements to the Pepper Avenue interchange that are located along Valley Boulevard east of Pepper Avenue. Therefore, a total of 63.6 acres of suitable DSF habitat north of the I-10 freeway would be in long term conservation.

3.3 Project Background

The West Valley Specific Plan, adopted on June 18, 1996, was prepared in response to the opportunities for economic growth and revitalization associated with the construction of the new Arrowhead Regional Medical Center (ARMC) and the community's desire to upgrade the overall appearance of the area.

Since that time, the Inland Empire has experienced growth in all market sectors. While other nearby communities along the I-10 Freeway corridor, such as Rancho Cucamonga, Ontario and Redlands have experienced much of this new growth, the Specific Plan project area has lagged behind.

A large part of the delay has been the result of the presence of the DSF in the CHCCSP project area, particularly in the western portion. Since DSF is a federally listed "endangered species" and since development of land impacted by DSF is prohibited by federal law unless certain requirements are met, development opportunities have been limited.

During the last two years, a significant effort and investment by the City of Colton has occurred to address the mitigation needs of DSF. A Habitat Conservation Plan (HCP) has been authorized by the City and has been submitted to U.S Fish and Wildlife Service. The CHCCSP incorporates the conservation areas specified in the HCP. The HCP is an independent process and is proceeding concurrently with the CHCCSP.

Other reasons for the lag in development in the project area relate to the recession that began in 2007, a lack of sufficient infrastructure in the project area, an undefined time frame for the I-10 Freeway and Pepper Avenue interchange improvements and the reluctance of the market place to move forward in a piecemeal manner without a comprehensive development program that addressed infrastructure needs and the resolution of the DSF habitat issue.

There are strong indicators that the market has turned the corner and is on the rebound. The adoption of this Specific Plan by the City Council will go a long way not only to establish a comprehensive

community vision but set the foundation necessary for prospective developers and builders to bring that vision to reality.

3.4 Purpose and Need for the Project

3.4.1 Purpose

The primary purpose of the CHCCSP is to implement the vision and policies of the City of Colton. The CHCCSP will update a portion of the existing WVSP that was previously adopted in 1996. Specifically, the purpose of the CHCCSP is to:

- Articulate and implement the vision that evolved during public workshops in 2007 / 2008 and in 2012 with members of the community, city staff, Planning Commission and City Council, which includes the following:
  - Establish a land use plan with comprehensive development regulations, community planning and design standards that will create a sense of community and a sense of place.
  - Create a pedestrian friendly community that becomes a place where people are encouraged to walk or bicycle between homes, shopping, restaurants, entertainment and businesses.
  - Assure that the area develops in a comprehensive and coordinated fashion with adequate consideration for infrastructure, public safety, public services, and resource management.
  - Incorporate bus rapid transit (BRT) routes planned by Omnitrans along major streets within the CHCCSP project area.
  - Create a new employment center for the City of Colton.
  - Strengthen the City's economic base.
  - Implement the goals and policies of the City of Colton General Plan.

3.4.2 Community Vision (Need for the Project)

In the past, the City of Colton was a vibrant city with movie theaters, small scale shopping districts and other amenities which created an inviting atmosphere that residents and visitors could enjoy. However, those uses have all disappeared in the last 25+ years. Colton is not unique in that regard. Small scale towns with vibrant Main Streets have all but disappeared in many communities throughout the nation. However, during the past decade there has been a resurgence in a large number of major metropolitan areas to revive traditional town planning principles that guided the original planning of small town centers, Main Streets, and quaint and charming neighborhoods that adjoined them.

The vision for the CHCCSP project area is to restore the sense of community, vibrancy and vitality of the small town atmosphere. This includes incorporating a broad range of uses all within walking distance of one another, including shopping, restaurants, entertainment, hospitality, offices and housing. In addition, the vision includes creating a new Main Street setting, new employment

opportunities and establishing a new strong economic base for the City. Open space for habitat conservation is also part of the CHCCSP as required under the HCP that has been submitted for approval to USFWS.

The vision for the CHCCSP project area evolved out of a series of steps during the formation of the Plan, each one building upon the other. These included: 1) a series of public outreach meetings and workshops with property owners, members of the community, City Council, Planning Commission, and representatives from the City of Rialto, which share a boundary with the CHCCSP project area; 2) a site tour of multiple high quality communities within Southern California with representatives of the City Council, Planning Commission and City Staff; 3) discussions and meetings with representatives of the ARMC, a site that is surrounded by the CHCCSP project area but not a part of it; 4) discussions with representatives of the development industry to listen to their input regarding land use and market considerations; 5) contact with local Indian tribes; and 6) meetings with City Staff and various governmental agencies including the Rialto Unified School District, County of San Bernardino Flood Control District, West Valley Water District, and Omnitrans representatives.

Realization of the Vision

There are many reasons the CHCCSP is well positioned to see this vision transformed into reality:

Location. The CHCCSP project area is strategically located with direct access and visibility from the I-10 Freeway/Pepper Avenue interchange and is within a short distance to the I-10/Riverside Avenue interchange. Major improvements to the I-10/Pepper interchange are scheduled to begin in 2014, including increasing the number of travel lanes, that will enhance the desirability of the area.

Freeway Access and Visibility. The site includes over one mile of I-10 Freeway frontage with 200,000+ vehicles per day passing by the site with an interchange located at Pepper Avenue. It is located in the heart of the Inland Empire, within 3.5 miles of the I-215 Freeway and 10.5 miles of the I-15 Freeway.

Demographics. While the recession that began in 2007 slowed population growth, strong population growth in the Inland Empire is expected over the next 10 years. Implementation of the CHCCSP will help serve the resulting demand for new homes, retail, office, hospitality and business uses.

Arrowhead Regional Medical Center. The ARMC facility is located adjacent to the site near the I-10 Freeway/Pepper Avenue interchange. The medical center currently employs over 3,000 people and is projected to increase to 3,800 in the near future. This number of employees is expected to increase with the implementation of the federal Affordable Care Act. In addition, over 320,000 patient visits occur each year. Since no significant shopping, services or restaurants occur nearby to serve the hospital, many of the future uses in the Specific Plan are expected to benefit from close proximity to this major facility.

Bus Rapid Transit. The Compass Blueprint Study, prepared in 2007 by the Southern California Association of Governments (SCAG) identified planned future bus rapid transit (BRT) routes in the Inland Empire. Two or more stops are planned within the Specific Plan project area boundaries. With more people seeking out ways to avoid using their vehicles to commute and the desire of many to be more environmentally conscious, options such as bus rapid transit will only enhance the desirability of the Specific Plan area for businesses and homebuyers.

A Livable Community. A growing desire for a mixed use, walkable, high quality living and work environment that includes a small town character is emerging in many metropolitan areas throughout California and elsewhere. The CHCCSP will fulfill the need for this type of community setting.

3.5 CHCCSP Project Overview

3.5.1 Specific Plan Planning Areas and Designations

Under the WVSP amendment, the CHCCSP project area may be developed with a variety of land uses including retail, office, business park, residential, and open space for recreation uses. Habitat conservation is also a component of the CHCCSP. The West Valley HCP requires the set aside of 43.8 acres in addition to the area that has already been set aside in the project area for a total of 48.4 acres within the CHCCSP project area. Table 3-1, *Land Use Summary* provides a breakdown of the land use designations, acreage and number of dwelling units. Table 3-2, *Planning Area Summary* provides a listing of the planning areas, proposed land uses, land use designations, acreage and density ranges for dwelling units. Exhibit 3-11, *Conceptual Land Use Plan* shows the proposed Land Use Plan for the CHCCSP project area. This Land Use Plan accommodates a variety of proposed land uses including critical habitat for DSF as further discussed in Section 3.2.5. Exhibit 3-12, *CHCCSP Circulation Plan* shows the proposed Circulation Plan for the project area that takes into account, the limits placed on the project by the habitat conservation areas as well as existing land uses, particularly the ARMC and cemetery. Although the West Valley HCP is still under review by USFWS, the CHCCSP incorporates into the project the proposed conservation areas and measures to protect DSF.

RETAIL (R)

In order to create a new shopping hub in the City of Colton, 79.2 acres has been designated for Commercial Retail (R) uses along the I-10 Freeway and Valley Boulevard corridor. These uses will be located in planning areas 16, 20 and 22 generally located near the intersection of Valley Blvd and Pepper Avenue. The objective is to provide for development of a vibrant walkable Village Shopping Center/Hub that includes entertainment and hospitality components, combined with department stores, large format national retail stores as well as small scale shops and services in a “Main Street” setting. Access is provided from the freeway via the Pepper Avenue interchange.

Table 3-1 Land Use Summary

Description	Land Use Designation	Acres	Dwelling Units	Density	Percentage of Area
Residential					
Medium	RES-M	26.9	108	4 du/ac.	7.2
Medium-1	RES-M-1	15.2	167	11 du/ac.	4.1
Residential Sub-Total		**42.1**	**275**		**11.3**
Commercial/Office/Business Park					
Commercial Retail	R	79.2			21.2
Retail-Mixed Use	RMU	68.8			18.4
Office-Mixed Use	OMU	23.6			6.3
Business Park	BP	51.7			13.8
Commercial Sub-Total	**223.3**				**59.7**
Open Space					
Parks	OS/P	4.5			1.2
Habitat Conservation	OS/H	48.4			13.0
Open Space Sub-Total		**52.91**			**14.2**
Other Public Uses					
Major Street Rights-of-Way	-	**54.99**			**14.7**
Total		**373.2**	**275**		**100%**

Source: Colton's Hub City Centre Specific Plan 2014

The Pepper Avenue/I-10 freeway interchange provides optimum freeway access and serves as the "front door" to the Retail uses. Major improvements are scheduled to begin in 2014 that will add travel lanes and greatly improve the interchange.

OFFICE MIXED USE (OMU)

Office Mixed Use, with 23.6 acres, provides opportunities for corporate, executive, professional offices, banking, savings and loan institutions, medical facilities, laboratories, pharmacies, durable medical equipment sales and leasing. The three planning areas designated OMU are located at the intersections of Pepper Avenue/San Bernardino Avenue and Pepper Avenue/Valley Blvd, both major arterial roadways north and south of the ARMC. The OMU designation provides for uses is complementary to ARMC, e.g., opportunities for medical related offices, research and development,

Table 3-2 Planning Area Summary

Planning Area	Land Use	Land Use Designation	Acres	Target Density*	Target Dwelling Units	Dwelling Units*
1	Business Park	BP	9.00			
2	Residential/Medium	RES-M	10.70	4 du/ac.	43	0-51
3	Open Space/Habitat	OS/H	2.60			
4	Residential Medium 1	Res-M1	5.60	11 du/ac.	62	5.1-14
5	Business Park	BP	14.90			
6	Open Space/Habitat	OS/H	6.40			
7	Residential/Medium 1	Res-M1	4.20	11 du/ac.	46	5.1-14
8	Residential/Medium 1	Res-M1	5.40	11 du/ac.	59	5.1-14
9	Retail-Mixed Use	RMU	25.00			
10	Business Park	BP	15.70			
11	Open Space/Habitat	OS/H	12.20			
12	Open Space/Park	OS/P	3.91			
13	Residential/Medium	Res-M	9.40	4 du/ac.	38	38
14	Open Space/Park	OS/P	0.60			
15	Residential-Medium	Res-M	6.80	4 du/ac.	27	27
16	Retail	R	68.10			
17	Business Park	BP	12.10			
18	Open Space/Habitat	OS/H	27.20			
19	Office Mixed Use	OMU	10.60			
20	Retail	R	7.40			
21	Office Mixed Use	OMU	10.00			
22	Retail	R	3.70			
23	Office Mixed Use	OMU	3.00			
24	Retail-Mixed Use	RMU	43.80			
	Major Street ROW's		54.89			
	Totals		**373.20**		**275**	

Source: Colton's Hub City Centre Specific Plan 2014

and services such as pharmacies, medical and equipment supplies. To promote other compatible uses, the land use designation includes flexibility to incorporate Business Park and Retail uses.

BUSINESS PARK (BP)

Business Park (BP) uses totaling 51.7 acres will be located along the I-10 Freeway and Valley Blvd corridors on the west side of the CHCCSP project area. With excellent freeway visibility, frontage and direct access along Valley Blvd, this location is well suited to single and multi-tenant users, point of sale, flex space and incubator uses.

RETAIL MIXED USE (RMU)

Retail Mixed Use uses totaling 68.8 acres will be located along the I-10 Freeway and Valley Blvd corridors. With its location and visibility along major transportation corridors, it is conducive to a mix of retail, office and business uses. While retail is preferred as the primary land use, the RMU designation is intended to provide broad flexibility to respond to both the City's vision and market needs of the region.

RESIDENTIAL MEDIUM AND RESIDENTIAL M1 (RES-M& RES-M1)

There are two residential land use types, Residential Medium (RES-M) and Residential Medium M1 (RES-M1). The RES-M planning areas total 26.9 acres and are planned for approximately 108 single family homes on minimum 7,200 square feet lots. The intent is to meet the needs of those seeking high quality traditional homes with pool sized yards that would not otherwise be available in the nearby area. Their location will complement the single family character of the existing neighborhoods adjacent to San Bernardino Avenue to the north. In addition to providing housing opportunities for the general area and future commercial and business uses, the future homes are also expected to appeal to doctors, nurses and others associated with the ARMC due to their close proximity to the medical center.

RES-M1 planning areas total 15.2 acres and provide for single-family and attached dwelling units. This land use provides opportunities for small lot single family detached homes, duplex/paired homes and attached townhomes. As is the case in the RES-M designation, the RES-M1 land use will also provide housing opportunities for the general area, future commercial and business uses and many professionals associated with the ARMC. Within Planning Areas 7 and 8, higher densities will be permitted for senior housing subject to a Conditional Use Permit.

OPEN SPACE/PARKS (OS/P)

A 4.5 acre neighborhood park is centrally located within planning areas 12 and 14; within walking distance of the residential uses. A park master plan concept is included in the Specific Plan Community

Design Guidelines, and includes areas for free play, picnic stations, a basketball court, parking and a restroom.

OPEN SPACE/HABITAT (OS/H)

There are four planning areas (3, 6, 11, and 18) where habitat for DSF will be managed under an approved Habitat Conservation Plan (HCP) for DSF. These planning areas are located in the northerly portion of the project area that comprises 48.4 acres. Note: The Draft West Valley HCP identified approximately 50 acres of habitat conservation area while the CHCCSP uses 48.4 acres. Throughout the EIR the 48.4-acre set-aside for habitat conservation has been used to be consistent with the CHCCSP understanding that what is being set aside are whole parcels and not simply individual acres. Therefore, the parcels being set aside in conservation planning areas in the CHCCSP are the same parcels identified in the West Valley HCP.

The location and total acres preserved was based on requirements of the USFWS. While the habitat areas will remain passive open space with no access, many of the future homes adjacent to or near the OS/H uses will be able to take advantage of the wide open vistas these areas afford. When combined with existing habitat in or immediately adjacent to the project area the total area managed under the HCP is 63.6 acres and includes planning areas within the CHCCSP project area as well as existing and proposed conservation areas that are within the ARMC and Hermosa Gardens Cemetery sites. Section 4.4 *Biological Resources*, provides a comprehensive discussion of DSF and the HCP.

The existing WVSP assumed buildout in the specific plan project area (both the West Subarea and the East Subarea) of a variety of nonresidential uses with a Floor Area Ratio of 0.25 (FAR 25). Using the same FAR approximately 2.4 million square feet of nonresidential uses could be developed in the CHCCSP project area. Table 3-3, *Projected Development of Non-Residential Uses*, shows the acreage and projected square footage by Land Use type.

Table 3-3: Projected Development of Non-Residential Uses

Land Use	Non Residential Development	
	Acres	Square Feet[1]
Retail (R)	79.2	862,488
Retail Mixed Use (RMU)	68.8	749,232
Office Mixed Use (OMU)	23.6	257,004
Business Park (BP)	51.7	563,013
Total	**223.3**	**2,431,737**

Notes:

1. Assumes a Floor Area Ratio of 0.25 for development of non residential land uses. That is, 25 percent of a site would be developed with structures, the remaining site area would consist of parking lots, driveways, landscaping, loading areas, etc.

EXISTING DEVELOPMENT

Existing development within the CHCCSP project area is permitted to remain indefinitely. Any improvements to buildings and/or land will be subject to conditions provided under Non-Conforming uses in the General Provisions of Development Regulations, (CHCCSP Section 4.0), and other City of Colton Title 18 Municipal Code requirements as applicable. This is discussed in further detail in Section 4.9, *Land Use*.

3.5.2 Planning Area Design and Development Standards

The intent of this section is to summarize the planning objectives of the CHCCSP and the Vision and Community Planning and Design Principles set forth in the Specific Plan in order to guide future development. For additional planning, design and development standards please refer to Section 4.0, *Development Regulations*, and Section 6.0, *Community Design Guidelines* of the Specific Plan. It is the intent of the City in proposing the CHCCSP to provide a sense of community, vibrancy and vitality of a small town atmosphere by incorporating a broad mix of uses all within close proximity to each other, and connected by tree-lined streets. The CHCCSP landscape plan shows over 2,500 trees would be planted in the project area at buildout.

There are 24 planning areas within the CHCCSP project area as shown in the Land Use Plan (Exhibit 3-12), plus the major street network as defined in Table 3-2. Detailed site plans, tentative tract maps and other subsequent applications for development within planning areas will be prepared by the respective property owners, developers, and/or builders in the future and are not included in CHCCSP.

Circulation patterns and locations for Valley Blvd, Pepper Avenue, San Bernardino Avenue, Hermosa Avenue, Meridian Avenue, Wildrose Avenue, Woodpine Avenue, Indigo Avenue and future Street A are intended to remain as shown on the Conceptual Land Use Plan (Exhibit 3-11) and the Circulation Plan (Exhibit 3-12). Minor variations would be allowed in order to accommodate engineering refinements as planning areas are developed.

Existing development within the CHCCSP project area is permitted to remain and will be subject to conditions provided under non-conforming uses in the General Provisions of Development Regulations, Section 4.1 of the CHCCSP and other City of Colton Title 18 Municipal Code requirements as applicable.

Leadership in Energy and Environmental Design (LEED) and “green” development standards will be encouraged and all goals and standards that are in effect at the time of an application to the City of Colton would be incorporated into the CHCCSP project area.

Note: Where the reader is referred to other exhibits for more detail, those exhibits can be found in the Draft CHCCSP document included on a CD at the back of this EIR. Likewise, *Development Regulations*

that will guide future development within the project area can be found in Section 4.0 of the CHCCSP and *Community Design Guidelines* can be found in Section 6.0.

3.6 Project Objectives

The primary purpose of the CHCCSP is to implement the vision and policies of the City of Colton for Colton's Hub City Centre project that will amend and update a portion of the existing WVSP. These objectives have been used in the evaluation of this proposed Specific Plan amendment for a portion of the West Subarea of the WVSP and to evaluate alternatives to the CHCCSP Land Use and Circulation plans that may meet these objectives while reducing the potential significant environmental effects of Specific Plan implementation. Specifically, the City's objectives in proposing the amendment to the WSPA in the form of the CHCCSP are as follows:

- Establish a land use plan with comprehensive development regulations, community planning and design standards that will create a sense of community and a sense of place.
- Create a community that becomes a place where people are encouraged to walk or bicycle between homes, shopping, restaurants, entertainment and businesses.
- Assure that the area develops in a comprehensive and coordinated fashion with adequate consideration for infrastructure, public safety, public services, and resource management.
- Incorporate bus rapid transit (BRT) routes planned by Omnitrans along major streets within the CHCCSP project area.
- Create a new employment center for the City of Colton.
- Strengthen the City's economic base.
- Implement the goals and policies of the City of Colton General Plan.

3.7 Discretionary and Ministerial Actions

This EIR is being prepared by the City of Colton to assess the potential environmental impacts that may arise in connection with actions related to implementation of the proposed project. Pursuant to CEQA Guidelines Section 15367, the City of Colton is the lead agency for the proposed project and has discretionary authority over the Specific Plan and project approvals. The Draft EIR is intended to address all public infrastructure improvements and all future development that are within the parameters of the Specific Plan amendment.

3.7.1 City of Colton

Discretionary approvals and permits are required by the City or for implementation of the projects within the CHCCSP project area. Applicants for projects would be required to obtain a number of discretionary approvals and actions once the Specific Plan is adopted, including:

- Tentative Vesting and Final Map(s);
- Master Plans for some Planning Areas (see explanation following this list);
- Development Agreements;
- Conditional Use Permits for hotel and cinema uses as well as senior housing projects;
- Formation of districts for infrastructure (i.e., Mello-Roos, Community Facilities Districts, or other mechanism);
- Minor Use Permits (e.g., alcohol beverage service, outdoor seating, parking garages, etc.);
- Architectural Review;
- Major/Minor Subdivisions;
- Lot Line Adjustment; and
- Exercising Options for Land Acquisition (e.g., roadway improvements).

Future projects within the CHCCSP project area may require a number of City permits including:

- Demolition Permits;
- Encroachment Permits;
- Site Development Permits;
- Grading Permits;
- Building Permits;
- Occupancy Permits; and
- Utility Relocation.

Other actions future applicants must take to implement projects in the project area are:

- *Obtain Road Easements, Right-of-Entry, and Permits*. The project would require road easements and a right-of-entry permit (through an encroachment permit) for road improvements and new road construction. This encroachment permit would be obtained from the City of Colton Engineering Department.
- *Obtain Coverage Under the States's General Construction Permit*. Project construction would require coverage under the General Construction Permit issued to the State Water Resources Control Board and administered locally by the Santa Ana Regional Water Quality Control Board

(RWQCB). A Storm Water Pollution Prevention Plan must be submitted in order to obtain the permit. The RWQCB would act as a CEQA responsible agency.

- *Obtain Approval of Water Quality Management Plans*. Projects within the Specific Plan Project area would require a water quality management plan that identifies Best Management Practices (BMPs) and Operations and Maintenance procedures that would ensure that runoff discharge from the project site does not degrade downstream water bodies.

Planning Area Master Plans

With regard specifically to Master Plans for some planning areas, any application for R uses in Planning Areas 16, 20 or 22, RMU uses in Planning Areas 9 and 24, and Office Mixed Use (OMU) in Planning Areas 19, 21 and 23, must include a Master Plan for the entire respective planning area. The Master Plan must be provided prior to building design reviews by the City. The objective of the Master Plan is to ensure that any proposed plan by an applicant for any one location or portion of a Planning Area is: 1) designed in a cohesive manner with adjacent areas; 2) provides vehicular and pedestrian access to adjacent sites and major roadways; and 3) is consistent with all Community Planning and Design Principles set forth in CHCCSP Section 2.0 and other design guidelines and development regulations in other relevant sections of the CHCCSP.

All Master Plans are subject to approval by the Planning Commission. It is understood that an applicant may not own all the properties in a given Planning Area, and/or may not have any agreements to acquire or lease all acres within that Planning Area. In such cases, the Development Services Director or designee shall determine the extent of involvement, if any, of other property owners, e.g., whether meetings with adjacent or nearby property owners are necessary. That decision will be made on case by case basis. For an applicant's parcel, the Master Plan must identify: 1) the proposed building pads and/or conceptual building footprints; 2) parking areas based on the required number of parking stalls identified in Section 4 of the CHCCSP and/or applicable city codes; and 3) the locations for vehicular and pedestrian access for ingress and egress to the subject site and to adjacent parcels and to roads shown in the Circulation Plan (see Exhibit 3-12). For parcels in the same planning area other than those of the applicant, the Master Plan must conceptually identify all the same elements as above. Only general areas for parking need to be shown, not parking stalls. Instead, general boundaries of parking areas may be shown. Special features identified in the CHCCSP Community Design Guidelines, such as an entry monument and fountain on the corner of Pepper Avenue and Valley Blvd must also be shown conceptually in the Master Plan for Planning Area 16. Within Planning Area 16, a police substation may be required in any Master Plan based on Police Department recommendations. It is strongly recommended that prior to filing, the applicant discuss with the Development Services Director or designee, the appropriate scale of the plan and any additional information that may be required.

3.7.2 Responsible and Trustee Agencies

A number of other agencies in addition to the City of Colton will serve as Responsible and/or Trustee Agencies, pursuant to CEQA Guidelines Sections 15381 and 15386, respectively. This EIR will provide environmental information to these agencies and other public agencies, which may be required to grant approvals or coordinate with as part of project implementation. These agencies may include, but are not limited to, the following:

- U.S. Fish and Wildlife Service;
- California Department of Fish and Wildlife;
- California State Water Resources Control Board;
- California Department of Toxic Substances Control;
- California Department of Transportation;
- State Department of Housing and Community Development;
- Santa Ana Regional Water Quality Control Board;
- City of Colton Water and Wastewater Department;
- West Valley Water District;
- South Coast Air Quality Management District; and
- City of Colton Electric Department.

3.8 Development Schedule

New development and/or the reuse of existing developed sites has been slow to occur in the CHCCSP project area due to the down turn in the economy beginning in 2007, the presence of DSF habitat that requires the approval of a comprehensive habitat conservation plan for the entire project area. For the purposes of the environmental analysis of implementation of the CHCCSP, the City has assumed that once the HCP is approved, development would occur in the project area within the next six years and by 2020, most new development will be complete. This is true for all environmental issues except for the Traffic Impact Analysis (TIA) and the associated Air Quality and Noise analyses with regard to traffic generated impacts; the TIA looked at an Opening Year scenario of 2016. This date was determined in consultation with the City of Colton and represents the worst case scenario whereby the maximum number of vehicle trips that could be generated by new development in the project area would occur early. This allows the City to plan for the necessary road improvements in the project area and other affected areas in the City. It also provides other adjacent jurisdictions (e.g., City of Rialto, City of Riverside, and County of San Bernardino) with the opportunity to incorporate affected

intersections into their respective transportation planning efforts.

For all other planning purposes such as infrastructure improvements and public services the scenario where development occurs over an approximately six year period was utilized. Therefore, the analysis in the EIR is based on the assumption that development of future projects will be continuous during this time and no phases have been identified.

Recently interest in the project area has resulted in a number of new development projects being proposed in the CHCCSP project area. For the most part, these projects are being proposed on previously developed sites, or are outside the boundary of the West Valley HCP. These include the adaptive reuse of the Moss Brothers Auto Dealership and the expansion of the Valero service station site along the south side of Valley Blvd, west of Pepper Avenue (planning areas 17 and 20); the adaptive reuse of the King is Coming television studio at the southwest corner of Pepper Avenue and San Bernardino Avenue (Planning Area 19); and the adaptive reuse of the vacant Colton Piano site at the northwest corner of Valley Blvd and Hermosa Avenue (planning Area 24). Finally, a retail project has been proposed for the vacant northwest corner of Valley Blvd and Pepper Avenue (Planning Area 16) where the applicant has conducted two years of protocol surveys for DSF with negative findings.

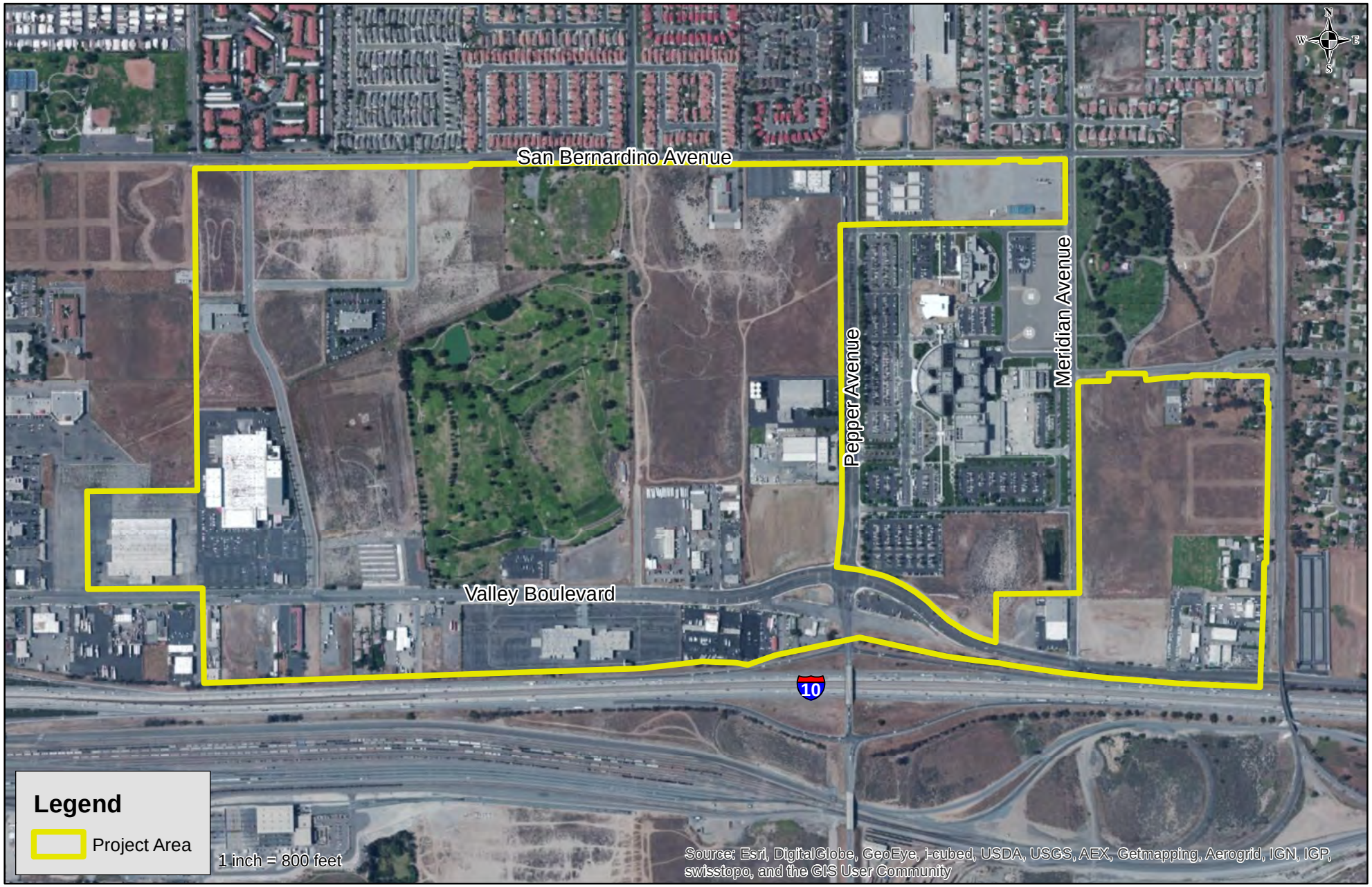


Source: Census 2000 Data, The CaSIL, MBA GIS 2008.

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Regional Location
CHCCSP Environmental Impact Report

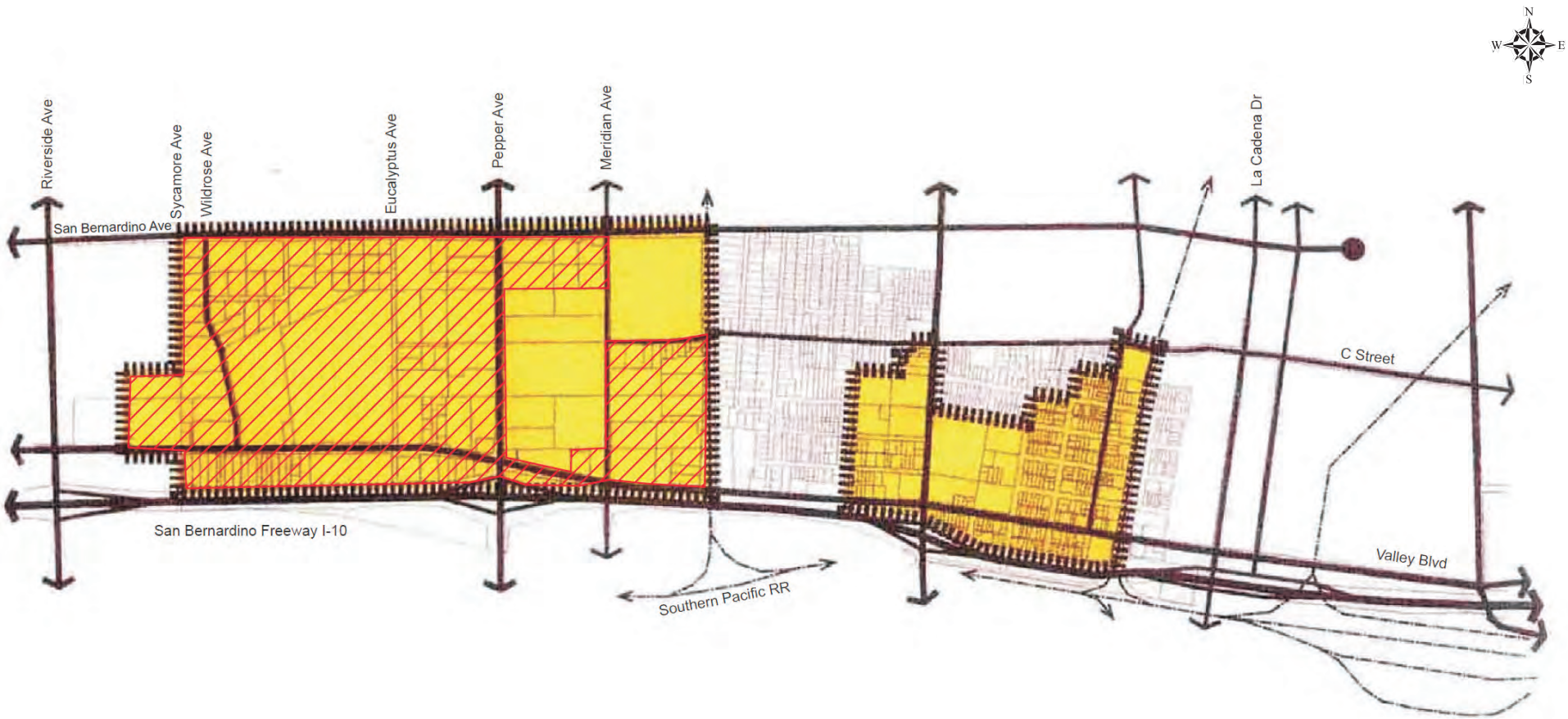
Exhibit 3-1



The Altum Group

Project Vicinity
CHCCSP Environmental Impact Report

Exhibit 3-2



Legend

Boundary of The Specific Plan Area

Colton's Hub City Centre Specific Plan (CHCCSP) Project Area Boundaries

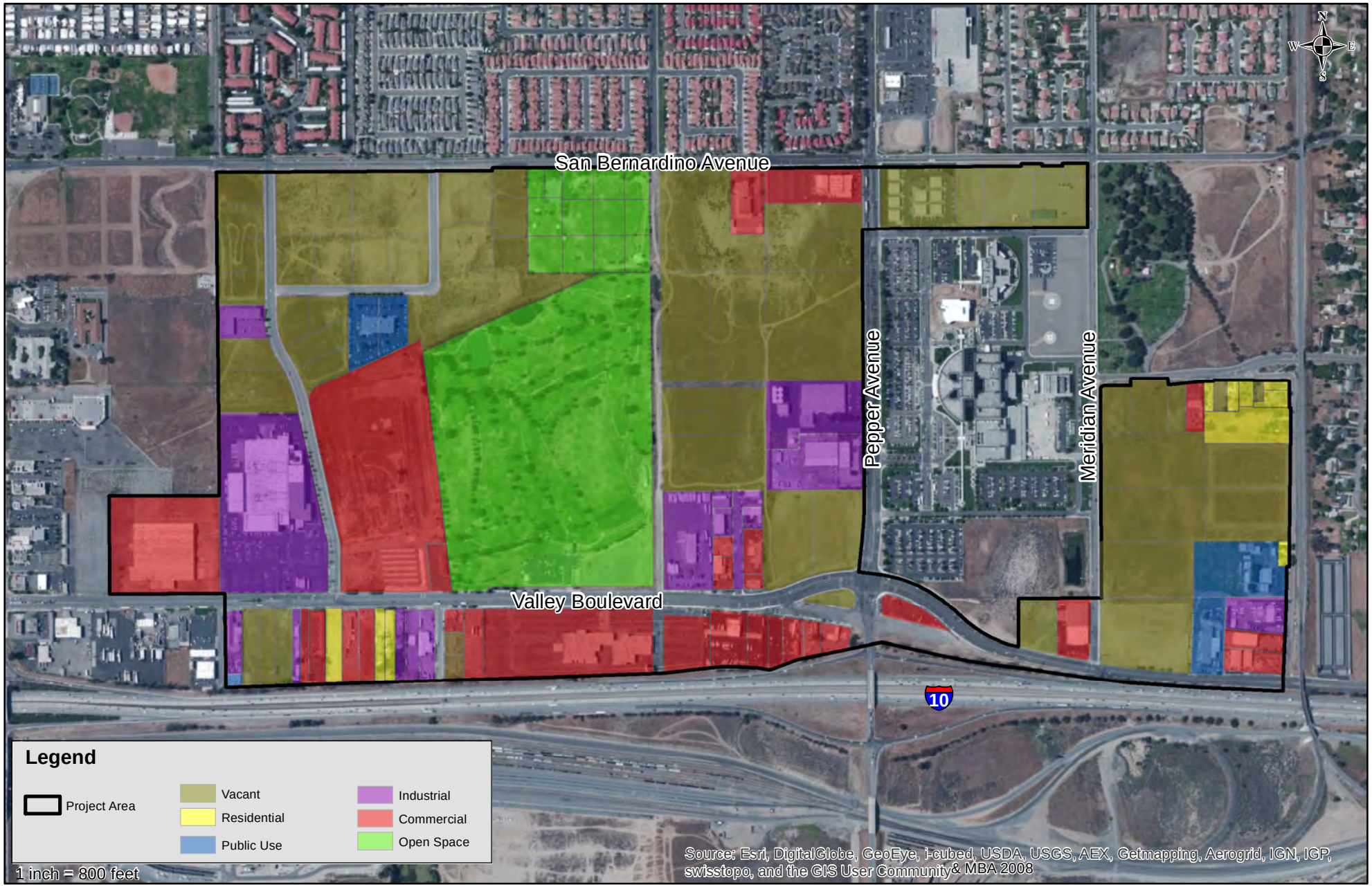
Source: JHA Consulting 2008

Not to Scale

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Existing WVSP and Proposed CHCCSP Project Area Boundaries
CHCCSP Environmental Impact Report

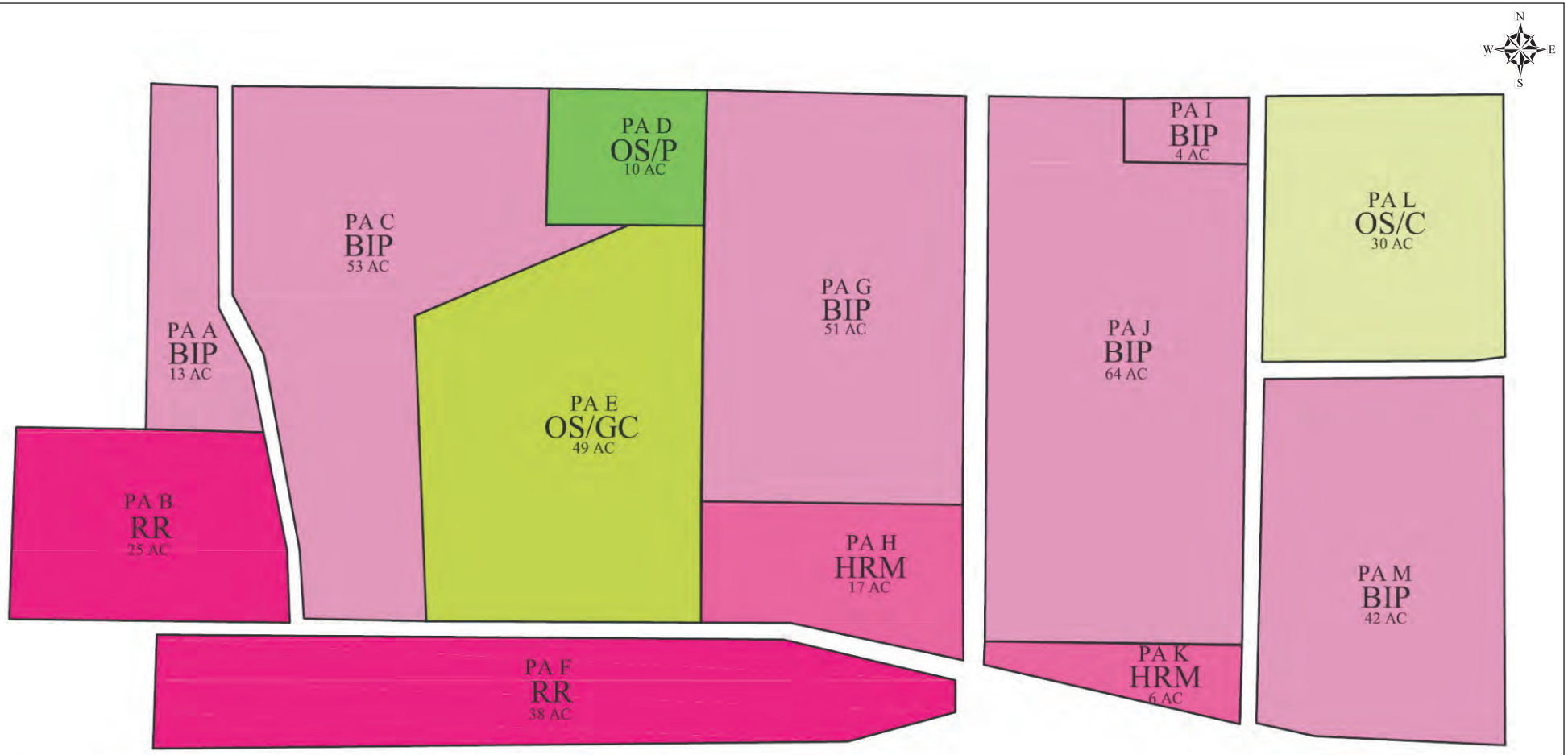
Exhibit 3-3



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Existing Land Uses
CHCCSP Environmental Impact Report

Exhibit 3-4



LEGEND FOR EXISTING WVSP:

RR	Regional Retail
HRM	Hospitality Retail / Medical Support
BIP	Business / Industrial Park
OS/P	Open Space / Park
OS/GC	Open Space / Golf Course
OS/C	Open Space / Cemetary

Note: Planning areas J and L are not a part of the WVSPA project area.

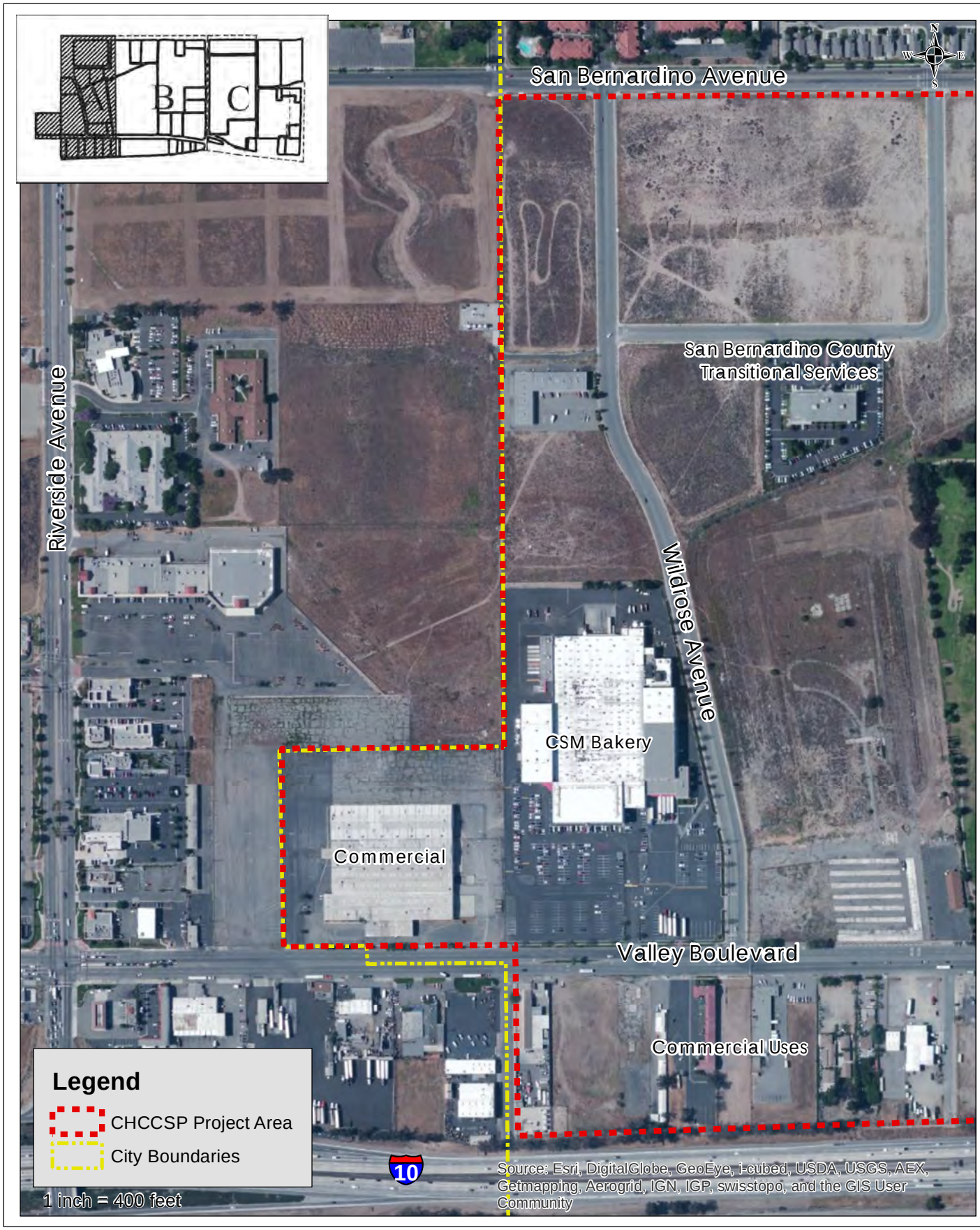
Source: JHA Consulting 2008

Not to Scale

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Existing Land Use Designations
CHCCSP Environmental Impact Report

Exhibit 3-5



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Existing Land Uses - West Project Area
CHCCSP Environmental Impact Report

Exhibit 3-6



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Existing Land Uses - Central Project Area
CHCCSP Environmental Impact Report

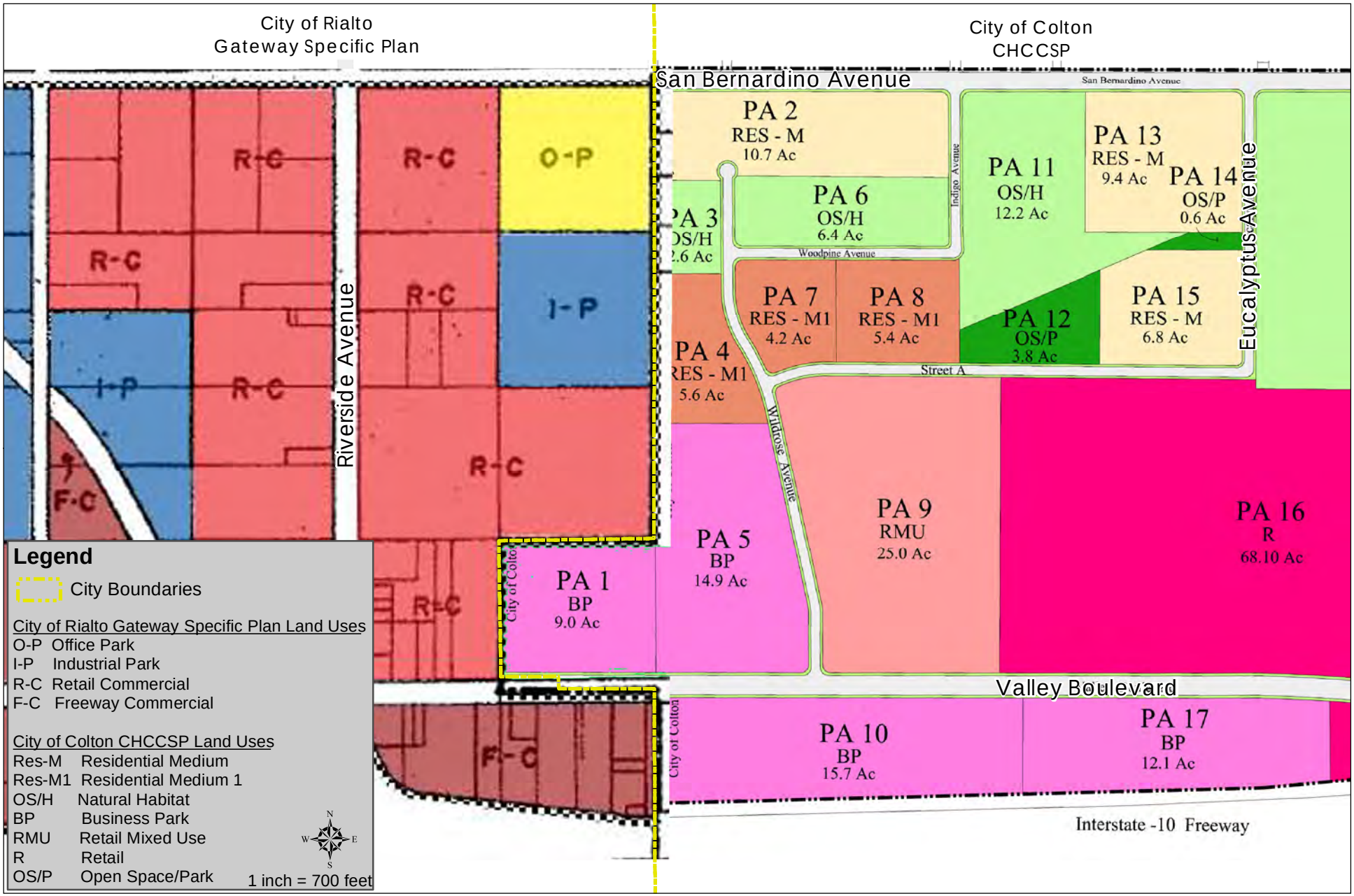
Exhibit 3-7



The Altum Group

Existing Land Uses - East Project Area
CHCCSP Environmental Impact Report

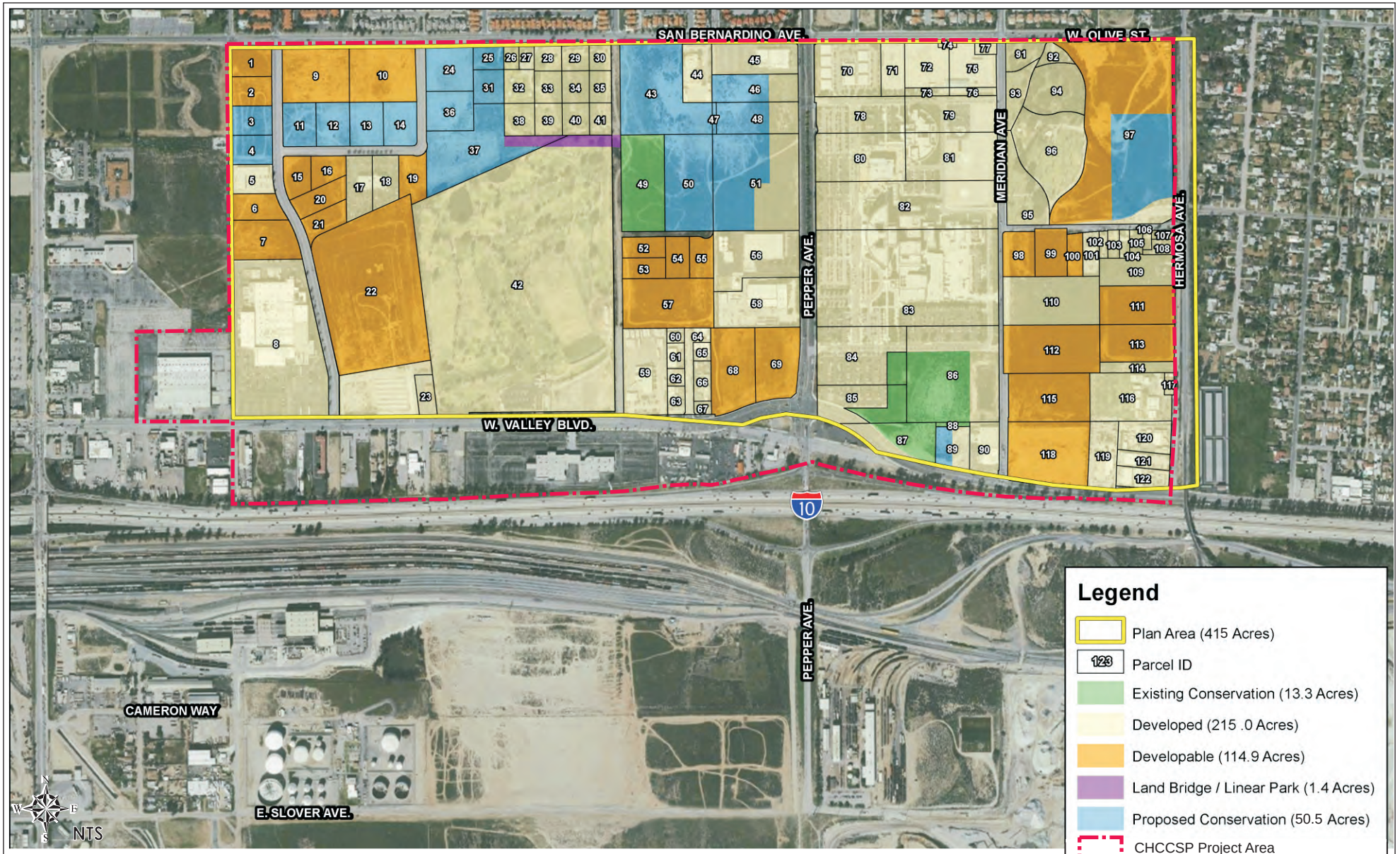
Exhibit 3-8



The Altum Group

Gateway Specific Plan and CHCCSP Land Uses
CHCCSP Environmental Impact Report

Exhibit
3-9



Source: RBF Consulting, 2013

The Altum Group

Onsite Conservation and Development
CHCCSP Environmental Impact Report

Exhibit 3-10

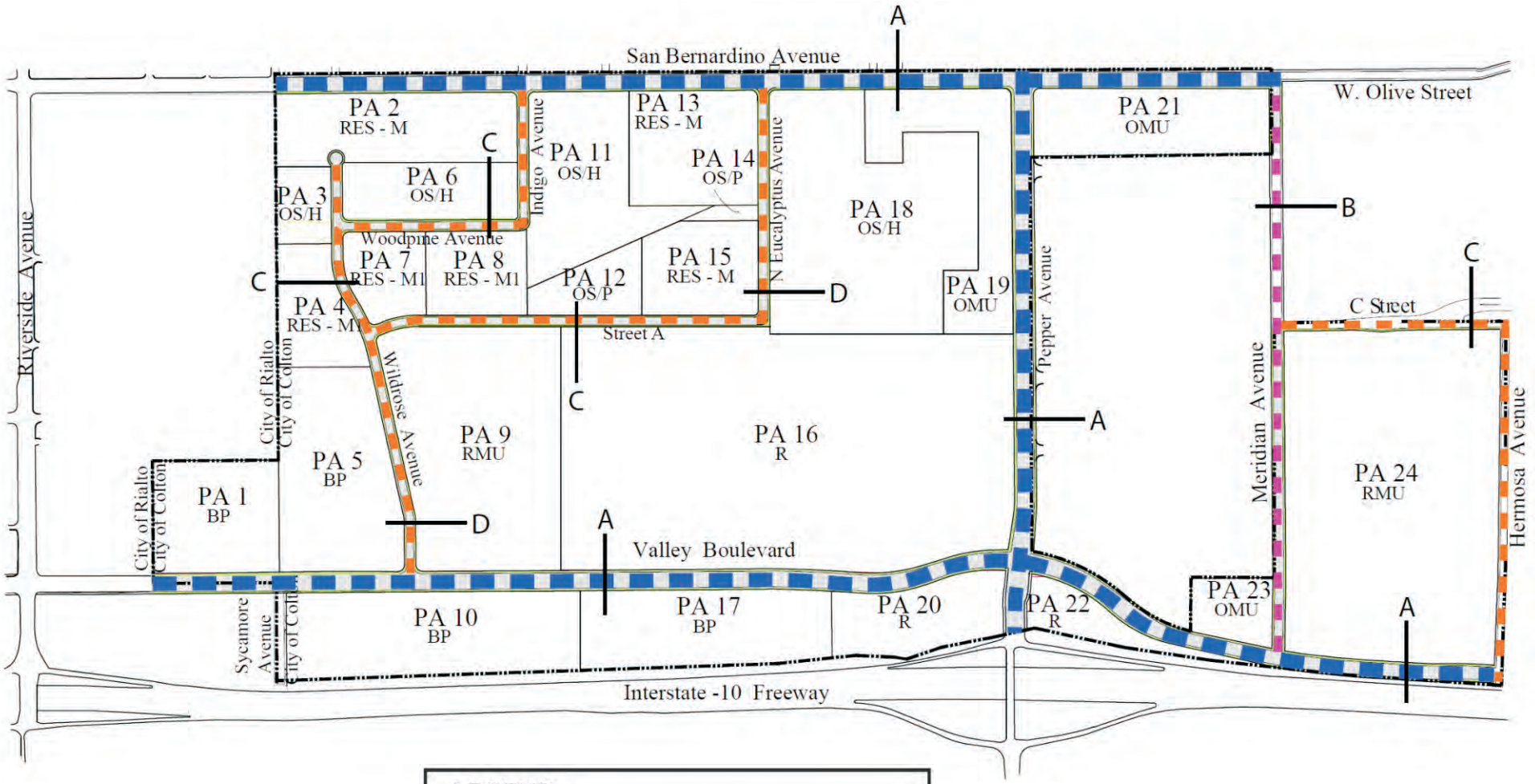


Source: JHA Consulting 2013

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Conceptual Land Use Plan
CHCCSP Environmental Impact Report

Exhibit 3-11



Source: JHA Consulting 2013

The Altum Group

CHCCSP Circulation
CHCCSP Environmental Impact Report

Exhibit 3-12

CHAPTER 4
Environmental Impact Analysis

4.0.1 Introduction

The Draft EIR for the West Valley Specific Plan Amendment (proposed project) provides analysis of impacts for all environmental topics. Sections 4.1 through 4.17 discuss the environmental impacts that may result with approval and implementation of the Proposed Project.

4.0.2 Issues Addressed in the EIR

The following environmental issues are addressed in this chapter:

4.1 Aesthetics;
4.2 Agriculture and Forestry;
4.3 Air Quality;
4.4 Biological Resources;
4.5 Cultural Resources;
4.6 Geology and Soils;
4.7 Greenhouse Gases;
4.8 Hazards and Hazardous Materials;
4.9 Hydrology and Water Quality;
4.10 Land Use and Planning;
4.11 Mineral Resources;
4.12 Noise;
4.13 Population and Housing;
4.14 Public Services and Recreation;
4.15 Transportation and Traffic; and
4.16 Utilities and Service Systems.

Each environmental issue area in Sections 4.1 through 4.16 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 or thresholds;
5. An evaluation of the project-specific impacts and identification of mitigation measures; and
6. A determination of the level of significance after mitigation measures is implemented.

Environmental Setting

This section contains a discussion of the existing conditions, services, and physical environment of the project site and vicinity. References to literature or persons consulted in the course of the EIR preparation are cited by the last name or firm acronym with specific pages referenced

to Section 8.0, *Report Preparation Sources*.

Project Impacts and Mitigation Measures

Thresholds of Significance

Determining of severity of project impacts is fundamental to achieving the objectives of the CEQA Guidelines Section 15091, which requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 require 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 associated with implementation of the project.

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

The following adjectives are used specifically to define the degree of impact and used in the Impact Analysis and Mitigation.

> An "**adverse**" impact is any negative result of the project, however small. As a disclosure document, the finding of an impact as "adverse" merely indicates that the project will cause an impact to occur compared to existing conditions, even though that impact may be less than significant. For example, the removal of a stand of healthy trees from a vacant site might be considered adverse (i.e., "negative") but it may not exceed a local threshold such as loss of native trees. Therefore, an impact may be adverse without being significant.
>
> A "**significant**" impact is considered a substantial negative effect if it exceeds some critical and accepted threshold for negative environmental effects. CEQA defines a significant effect on the environment as "…a substantial or potentially substantial, adverse (i.e., negative) change in any of the physical conditions within the area by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic or aesthetic significance… (CEQA Guidelines, Section 15383). As recommended in the CEQA Guidelines impacts are also identified as "**potentially significant**" prior to mitigation.

Impact Analysis

This section provides a discussion of the impacts of the proposed project in qualitative and quantitative terms; and will also evaluate the project's consistency with applicable City of Colton General Plan goals and/or policies.

The CCHCCSP is a regulatory plan, which upon adoption will constitute zoning of all property in the project area. Development plan, tract or parcel maps, precise development plans or other actions requiring ministerial or discretionary approval within the boundaries of the project area must be consistent with the CCHCC Specific Plan. Actions considered consistent with the CHCCSP shall be deemed consistent with the City of Colton General Plan. As Such, the EIR will identify potential environmental impacts that can be reduced or eliminated with adherence to the CHCCSP Development Regulations and Design Guidelines. If impacts remain significant, mitigation measures will be identified.

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

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. In addition, 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 offset with a summary heading and described using the format presented below:

AES-1a 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 with which it is associated (AES-1 in this example); the letter identifies the sequential order of that impact (a. in this example).

Level of Significance After Mitigation

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

4.1.1 Introduction

This section describes the existing aesthetics setting and the potential impacts on aesthetics, scenic resources, and visual character associated with the development of new land uses in the CHCCSP project area. Human perceptions of aesthetic qualities are subjective in nature and can make impact determinations challenging. Therefore, this analysis incorporates the "Reasonable Person Rule", wherein assessments are made based upon the conclusion most likely to be made by a reasonable person who is guided by considerations that would ordinarily be considered reasonable and prudent. Typically, the level of visual change likely to be incurred by a project is given the greatest consideration in determining significance.

4.1.2 Environmental Setting

The project area consists of approximately 373 acres of the 476-acre West Subarea of the WVSP project area featuring a variety of land uses, including residential, commercial, industrial, public use, and open space for recreation and habitat conservation. There are no areas with remarkable aesthetic qualities located within the project area, but there are several abandoned/vacant buildings and vacant parcels leading to a blighted appearance. Illegal dumping of household trash and tires as well as overgrown vegetation on vacant parcels is further evidence of blighted conditions.

The ARMC is a six-story state of the art medical facility with modern architecture. The Hermosa Gardens Cemetery is adjacent to the ARMC on the east and borders planning areas 21 and 24. It has been the City's cemetery since the 1800's and retains a nostalgic visual character. These two land uses comprise the remaining part of the subarea, not covered in the CHCCSP.

Exhibit 4.1-1, *State Scenic Highways*, shows the location of designated scenic highways in the region. As shown in this exhibit, there are now designated scenic highways in the vicinity of the project area.

Mountains surrounding the valley are considered scenic vistas, and can be seen from almost every direction. Views of the San Bernardino Mountains to the north stretch around toward the east with Mt. San Gorgonio at an elevation of 11,502 feet; and to the southeast, San Jacinto Peak with an elevation of 10,804. Several other peaks over 10,000 feet elevation are visible, including Mt. San Antonio (known locally as Mt. Baldy) at an elevation of 10,064 feet located in the San Gabriel Mountains to the northwest. These three notable mountains are located in designated wilderness areas established by the United States Forest Service (USFS). The Jurupa Hills are visible to the southwest

and the Box Springs Mountains are visible to the southeast. Both of these ridges are low lying and may not be visible from some areas in the CHCCSP project area. Slover Mountain at an elevation of up to 2,500 feet lies directly to the southeast, has been a quarry site for limestone for over 100 years and is now only about one third as wide and one half as high as it originally stood. There are no visible natural river courses or rock outcroppings in the project area, nor are there any unusual geologic or architectural features. In addition to existing buildings, local views of the project area include trees, grasses, shrubs, sand dunes and refuse. Because of its relative remoteness, a considerable amount of refuse has been dumped on property in the project area. Some commercial and residential uses are present in the project area. The residences are clustered near the intersection of C Street and Hermosa Avenue in planning area 24. These properties are fairly well maintained, however many of the commercial structures appear dilapidated and vacant.

Much of the vacant land in the project area is considered medium to high quality habitat for the Delhi Sands Flower-loving Fly (DSF). The City of Colton is currently consulting with the US Fish and Wildlife Service (USFWS) and preparing a Habitat Conservation Plan (HCP) for the project area.

Light sources in the project area include headlights of vehicles traveling on roadways, residential lighting, streetlights, recreational, advertising, security lighting, lighting associated with the ARMC and lighting from the Colton Golf Course. However, there are large sections of undeveloped land where there are no light sources. The project is in proximity to the I-10 Freeway, which contributes noticeably to noise, light and glare in the project area. The Colton Golf Course, on Valley Blvd between Eucalyptus Avenue and Wildrose Avenue has a night golf schedule that uses stadium type lighting. The facility revamped its lighting system to brighten the course in 2008. The course currently operates Monday thru Sunday from 6:00 a.m. to 7:00 p.m. (Colton Golf Club, Facebook Page 2013).

4.1.3 Environmental Impacts and Mitigation Measures

4.1.3.1 Thresholds of Significance

The following criteria for establishing the significance of potential impacts on visual resources from Appendix G of the State CEQA guidelines apply to this proposed project. A significant impact would occur if the proposed project would:

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; and
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

These criteria serve to determine if the existing view is a unique or limited resource for the public; if a view would be degraded by a new source of light and glare; or if the proposed project would be out of character with the area.

4.1.3.2 Impact Analysis

a-d) Substantial Adverse Affect on Scenic Vistas, Scenic Resources, Visual Character, Light and Glare (CEQA Threshold 1(a) through 1(d)

The threshold criteria serve to determine if the existing view is a unique or limited resource for the public; if the view would be degraded by a new source of light and glare; or if the proposed project would be out of character with the area. The City of Colton General Plan (1987) addresses aesthetics as part of the Open Space and Conservation Element. Note; this element was deemed to be still relevant and was not updated with other elements in the City's 2013 General Plan Update.

Determining aesthetic significance is primarily influenced by the level of visual change that will happen as a result of project implementation. For example, if a site within the project area will be located adjacent to structures that are similar in appearance and/or stature to the future project's structures as allowed under the Specific Plan, then the change to the visual environment will be less than a site where similar structures are not already present. Similarly, if the lighting associated with a site will be introduced into an area that already contains similar light sources, then the impact will be less than if the lighting sources were to be introduced into an area that is currently devoid of similar light sources.

The environmental documentation previously prepared for the WVSP when it was approved in 1996 was an Initial Study and Negative Declaration. The analysis focused on comparison of the proposed project with the existing zoning designations for sites in the project area and excluded the actual land use and the existing environmental conditions. The document concluded that there was no impact from the project on

aesthetics, streetscapes, light and glare because the proposed zoning and land uses were less intense than the maximum allowed in the existing zoning and land use codes. No mitigation for aesthetics was required for the implementation of the WVSP at that time.

The analysis of the proposed Colton Hub City Centre Specific Plan (CHCCSP) uses a different methodology, where the proposed land uses are analyzed compared to the actual land uses and the existing environmental conditions as well as the current planning designations.

Threshold (1) a: Development regulations, as set forth in Chapter 4 of the CHCCSP, would guide the development of future projects in the project area. Building setbacks for non-residential buildings from public streets could range from 20 to 35 feet, and from other types of uses between 10 to 25 feet. This would allow mountain views from residential and public areas (i.e., streets and parks) to be maintained in view corridors while still allowing development of business park, office and retail uses. The project area would be similar in appearance to the Ontario area along the I-10 freeway west of the City of Colton where office buildings, business parks, and other commercial uses have been developed. In that example, views of the mountains from the I-10 freeway have been maintained due to both the height of buildings and setbacks allowing view corridors along streets as well as the distance of several miles between the viewer and the mountains.

The CHCCSP establishes building height limits for each land use designation which are provided in Table 4.1-1, *Height Limitations in the CHCCSP Project Area*. Building heights in the project area will be less than or similar to the existing ARMC complex of buildings.

Other requirements are summarized below. For a complete list of Development Standards for each Land Use Category See Chapter 4, *Development Regulations*, in the CHCCSP (Appendix B). Compliance with Development Regulations would ensure that impacts on scenic vistas would be less than significant.

Threshold (1) b: Development under the proposed CHCCSP would not substantially reduce scenic resources that can be observed within a State scenic corridor because; 1) there are no distinctive scenic resources within the project area; and 2) as shown in Exhibit 4.1-1, the project area is not near a State scenic highway. Specific scenic vistas, scenic highways, or other scenic resources are not identified by the City's General Plan, the West Valley Specific Plan or the West Valley Specific Plan Mitigated Negative Declaration.

Table 4.1-1 Height Limitations in the CHCCSP Project Area

Land Use	Height Limitation (feet)	Additional Height allowed for architectural features
Residential		
RES - M (Medium)	35	
RES – M1 (Medium)	35	
RMU – Retail Mixed Use	50	10-20
R – Retail	60	10
OMU – Office Mixed Use	60	20
BP – Business Park	50	Anything exceeding 50 ft. is subject to a CUP
OS/P – Open Space / Park	n/a	
OS/H – Open Space / Natural Habitat	n/a	

Source: Draft Colton's Hub City Centre Specific Plan (2013)

In addition, there are no other scenic resources within the project area, much of which has been subject to illegal dumping and includes several abandoned and dilapidated buildings. Existing conditions in the project area are shown in Exhibit 3-3 and Exhibits 3-6 through 3-8.

Threshold (1) c: The CHCCSP includes a master plan and guidelines for streetscape design with each of the major streets to include specific tree types. Exhibit 4.1-2, *Streetscape Master Plan – West Side* and 4.1-3 *Streetscape Master Plan – East Side*, show the streetscape master plan for the project area, including a plant palette of trees and shrubs. Exhibits 4.1-4 through 4.1-8 show streetscape sections for key entry points in the project area. All areas of a development site not occupied by buildings, parking, service and storage areas, or otherwise utilized will be landscaped. Overall, implementation of the proposed CHCCSP is expected to represent a visual improvement to the area while still maintaining view corridors along streets and between buildings and vacant land and across permanent open space associated with the habitat conservation sites.

In planning areas where habitat conservation will occur (planning areas 3, 6, 11, and 18), these areas will not be landscaped but will remain in a natural state and will be maintained free of trash and debris as required so as not to have a blighted appearance. A maintenance plan is included in the discussion of the HCP in Section 4.4, *Biological Resources*.

Conceptual Land Use Plan

Planning Areas 16, 20 and 22 (see Exhibit 3-11), located on the west side of Pepper Avenue and on the south side of Valley Blvd would be developed with a variety of general retail, hospitality and entertainment uses. Development standards will allow building heights of up to 60 feet with an additional 10 feet in height for architectural features. In order to assure orderly development within Planning Areas 16 and 20 and 22, a master plan must be submitted with each development review application in these planning areas. The master plan must identify proposed building pads, required building heights and setbacks, access for ingress and egress, and parking areas/requirements. These standards apply to the vacant land in these planning areas as well as currently developed properties that may be redeveloped in the future. At this time, the relationship between the future uses in Planning Area 16, 20 and 22 and the ARMC would be reviewed in order to resolve potential impacts of proposed lighting design and treatment of windows and other surfaces that could cause glare, to the satisfaction of the County Land Use Services Department. Planning Area 16 also abuts planning areas that are designated for both residential (planning area 15) and habitat conservation (planning area 18), and special consideration of these adjacent uses must be given when developing new uses in Planning Area 16.

Planning areas 21, 23 and 24 are adjacent to the north, south and west of the ARMC, and planning area 24 is near the habitat conservation area being set aside at the cemetery for DSF. The planning areas are designated for office mixed use and retail mixed use. Development standards allow building heights of up to 60 feet with an additional 20 feet in height for architectural features for a maximum of 80 feet.

Development of office mixed and retail mixed uses in Planning Areas 23 and 24 would not likely affect the ARMC due to the distance between the ARMC buildings and the planning areas with ARMC parking lots as buffer area as well as building setbacks within planning areas. As shown in Exhibit 3-10 in Chapter 3, *Project Description*, under existing conditions, the planning areas are separated from the ARMC by the Hospital Conservation Site (6.8 acres set aside as permanent habitat for DSF as part of the development of the ARMC) and one of the ARMC parking lots, so there is an approximately 800-foot separation between the ARMC main building and Planning Area 23. However, development within these two planning areas must address potential impacts of light/glare on the ARMC which is discussed further below in "Outdoor Lighting Guidelines." Likewise, any new uses in Planning Area 24 must consider the potential for nighttime lighting to adversely affect the habitat area at the cemetery site.

Planning Area 21, located immediately north of the ARMC would also have to address potential impacts to the ARMC and existing uses to the north due to the proximity of the ARMC buildings to Planning Area 21, which is separated from the ARMC by Violet Street, a 40 foot wide street used as a driveway by the ARMC. However, because the existing cemetery is adjacent to Planning Area 21 and between this planning area and the habitat to be set aside in the cemetery for DSF, potential impacts from nighttime light and glare would be less than significant.

Project Compliance with Existing Regulations

State of California Government Code, Title 7, Division 1, Chapter 3, Article 8, Section 65450-57 grants authority to cities to adopt specific plans for purposes of implementing the goals and policies of their general plans. This entitlement enabled the City to update its General Plan Land Use Element (adopted in 2013) with the following goals and policies relevant to aesthetic resources:

Goal LU-2: Create great places in Colton through use of high-quality streetscapes and design requirements.

> **Policy LU-2.1:** Pay critical attention to the appearance of properties at the City's major gateways, as identified in Figure LU-5. (this exhibit shows major gateways at Valley Blvd/Sycamore Avenue and Valley Blvd/Pepper Avenue, both in the CHCCSP project area.
>
> **Policy LU-2.2:** Require that private development at the gateways locations create a stronger sense of City identity. Improve the public realm to reinforce this image.
>
> **Policy LU-2.3:** Apply rigorous and transparent design review practices to all development applications.

Goal LU-7: Provide opportunities for all neighborhoods in Colton to be in a healthy and attractive physical condition.

> **Policy LU-7.1**: Stress the importance of property maintenance and rehabilitation activities to improve neighborhood conditions.

Goal LU-8: Create new attractive residential neighborhoods throughout Colton that provide a range of quality housing.

> **Policy LU-8.2:** Require that the architectural design and scale of new residential developments respect and enhance the character of established neighborhoods.

These goals and policies will serve as the basis for future project developments in the CHCCSP project area and will be implemented through the discretionary review of proposed architectural design for all proposed projects within the project area and will be required to comply with development standards specific to the CHCCSP and general development standards from the City of Colton Municipal Code, Title 18: Zoning to implement these goals.

Outdoor Lighting Guidelines

All new development projects within the CHCCSP project area, including new projects on existing developed sites would be subject to design review to ensure compliance with the CHCCSP *Development Regulations and Design Guidelines*. Design of all streetlights and other outdoor lighting must be consistent with the CHCCSP and all electrical plans and photometric studies must be submitted to the City Development Services Department for plan check and shall comply with relevant requirements of the CHCCSP, Development Code and the California Building Code. In addition, any land use that requires a conditional use permit will be subject to further discretionary review by the City with conditions of approval tailored for the specific use.

- All lighting fixtures in the CHCCSP project areas must comply with the following regulations and provisions as set forth in CHCCSP Section 6.12 Outdoor Lighting Guidelines:
  - All outdoor lighting, including spotlights, floodlights, electrical reflectors, and other means of illumination for signs, structures, landscaping, parking, loading, unloading and similar areas shall be focused, directed and arranged to minimize impact on adjoining property.
  - Lights shall be break resistant plastic, recessed or otherwise designed to reduce the problems associated with damage and replacement of fixtures. Installed fixtures will be vandal proof.
  - Neon and similar types of lighting are prohibited in all areas except in retail areas in conjunction with the entertainment center unless otherwise approved by the Planning Commission.
  - Community entry monuments, commercial and residential entry monuments, the major entry monument and fountain at the northwest corner of Valley Boulevard and Pepper Avenue, and public plazas in retail sites shall be creatively lit to develop a sense of place and arrival.
  - All exterior lighting designs shall address the issue of security. Parking lots and commercial building entrances shall be well lighted for security reasons to a minimum average of one foot candle, unless otherwise approved by the police department.
  - All exterior light shall be shielded where feasible and focused to minimize spill light into the night sky or adjacent properties.

- Freestanding lighting fixtures shall not exceed forty feet (40') in height, unless approved by the Development Services Director or his/her designee.
- Service area lighting shall be contained within the service yard boundaries and enclosure walls.
- All electrical meter pedestals and light switch/control equipment shall be located with minimum public visibility if possible or shall be screened with appropriate plant materials.
- The level of on-site lighting as well as lighting fixtures shall comply with any and all applicable illumination requirements and policies of the City. Energy conservation, safety and security should be emphasized when designing any light system.
- All community landscape common areas, private facilities, streetscapes, and other use areas may contain accent or other night lighting elements subject to approval of the Development Services Director or his/her designee.
- Pedestrian corridors shall be lit to ensure safe walking environments throughout the project area.

Project Design Features

For the CHCCSP project area, Project Design Features take the form of the Specific Plan's Development Regulations (Specific Plan Section) and Community Design Guidelines (Specific Plan Section 6). Development regulations are set forth in accordance with the vision, goals and objectives of the CHCCSP, and provide the basic criteria that govern all uses and development within the boundary of the project area. Development Regulations are unique to each land use (i.e. retail, business park, office and residential) and are meant to regulate how projects within each planning area are developed in an orderly well-planned manner to achieve the Specific Plan goals and objectives to create a sense of community and a sense of place, within the City of Colton and the larger San Bernardino Valley. How individual projects would meet these regulations would be through adherence to building and parking setbacks from public streets as well as maximum lot coverage for retail office and business park uses. This would result in an orderly pattern of building mass, parking lots and public streets that would allow for public views of the mountains to be maintained. Control of size and height of signage, control of location of conditionally permitted uses, and landscaping requirements would result in a comprehensive, coordinated community.

Project design features that would enhance the aesthetic quality of the site include:

- minimizing signage;
- creating a park-like atmosphere throughout the project area;
- including subtle, textured sound and separation walls;

- designing for building height restriction with multi-story structures similar in height to the existing ARMC; and
- developing an open, uncluttered layout with meandering streets, bicycle trails, foot trails, and double tree-lined streets.

Likewise, the Community Design Guidelines would be implemented in conjunction with the Development Regulations to create a village atmosphere with a Main Street, entertainment and hospitality component. Business Park, Retail and Office planning areas will be clustered along the main roadways of the project area particularly along Valley Blvd and Pepper Avenue.

The layout of the project area allows land uses to be clustered with residences, park and recreation uses, and open space for habitat in the northwest quadrant of the project area and buffered from the I-10 freeway and Valley Blvd by Business Park uses.

Each planning area is subject to site planning, architectural and landscape guidelines. Guidelines provide guidance on design of buildings resulting in a cohesive community. For Specific guidelines for each land use type, see Section 6 of the CHCCSP included with the EIR on CD.

Land Use related development regulations and design guidelines are included for the following:

- Retail
- Office
- Business Park
- Residential
- Open Space / Parks & Habitat
- Landscaping- Streetscape

Retail

Elements for the Retail areas include a fountain and plaza as a focal point and gathering area in any movie theater location. The design of the buildings will provide variation in form, massing and color, with accent material such as stone, brick, manufactured stone, and accent colors along all building facades visible to the public. Building setbacks will vary from thirty five feet (35') to twenty five feet (25') for areas adjacent or next to Retail Mixed Use (RMU), Office Mixed Use (OMU), and Business Park (BP) and Residential Uses and up to ten feet (10') from Open Space areas to keep the building massing from overwhelming the street.

Office

The primary goals for the design of office buildings is to create an office park setting to allow unique designs for individual parcels while at the same time establishing unifying elements that will complement the overall community. Design guidelines for Office uses include creating an office park campus atmosphere along Valley Boulevard. Building setbacks will vary from twenty-five feet (25') from Valley Boulevard or San Bernardino Avenue, to fifteen feet (15') from Meridian Avenue. Building separation requirements will be at fifteen feet (15') for one story, twenty feet (20') for two story, and twenty-five feet (25') for three-story or more. Office buildings will be designed to consider the characteristics of the site and relate designs to the surrounding built environment in scale and character.

Business Park

The four goals for the Business Park uses include creating a setting with quality buildings and attractive landscape, providing pedestrian connectivity to the overall community, accommodating the need for functionality in order to be responsive to a broad cross-section of Business Park developers and tenants, and allowing unique designs for individual parcels. Limiting maximum building length to two hundred twenty-five feet (225') to maintain village scale and campus character and avoiding big box warehousing and distribution developments will further define a Business Park. Building setbacks will vary from twenty-five feet (25') from Valley Boulevard, to twenty feet (20') from other public roads.

Residential

Two different residential densities are planned for the CHCCSP project area; Residential Medium (RES-M) and Residential Medium 1(RES-M1). The Residential Medium (RES-M) will provide 7,200 square foot minimum lot sizes. The development regulations will meet the R-1 development regulations in Title 18 of the City of Colton Zoning Ordinance. Guidelines for the Residential Medium 1 (RES-M1) include guidelines for single-family detached homes such as, patio homes, garden court homes, courtyard homes, and motorcourt homes. Architectural styles that complement the Early California theme, including Monterey, Craftsman, Spanish Eclectic and Cottage Styles will be incorporated into the design of homes.

All residential areas will meet specific architectural standards. The massing and scale of the buildings will include a variation in rooflines, and to increase the attractiveness and also provide 360 degree architecture. While earth tones are preferred, a variety of color palettes are recommended in order to avoid a monotonous or continuous

appearance of buildings. Porches and balconies will add depth to a building facade and break up large wall masses. Residential planning areas with detached homes will include a minimum of three (3) different elevations. Additionally, matching elevations will not be repeated adjacent to one another, or opposite one another. Duplexes and triplexes will have three (3) distinct architectural elevations and a minimum of two (2) elevations for fourplex and greater buildings unless approved by the Development Services Director.

Open Space/Parks

The 4.5 acre public neighborhood park located in Planning Areas 12 and 14 will provide opportunities for recreation and relaxation, and will be open to the public. The park will include a parking area, tot lot, free play area, basketball court, picnic tables, restroom, and a walking pathway.

Landscaping

The Community Streetscape Master Plan and Guidelines will play an important part in developing a distinctive community with the use of trees, shrubs and groundcover within parkways, medians, and landscaped setback areas. The Guidelines provide nine landscape elements for the project area, with each element providing a unique theme. Parkways and medians along San Bernardino Avenue, Pepper Avenue, and Valley Boulevard will have at least three different types of trees such as Chinese Pistache, Date Palms, Southern Magnolia (Valley Boulevard), Jacaranda, Australian Willow, Date Palms and Bottletree (Pepper Avenue) and Tipu tree, Camphor Tree and Crape Myrtle (San Bernardino Avenue). Examples are shown in Exhibits 4.1-2 through 4.1-8.

Mitigation measures AES-1 through AES-4 require project applicants to submit site specific landscape plans and lighting plans in addition to compliance with the Design and Development standards set forth in the CHCCSP. Therefore, impacts on the visual character of the project area from future projects would be less than significant.

Threshold (1) d: The project has the potential to add significant new sources of light and glare as new uses are developed. Although stadium type lighting currently exists on site for night play on the golf course, mature trees partially screen the light surrounding the course, and the light is turned off at or after 7 pm, thus leaving the area dark at night.

The County of San Bernardino's ARMC could be adversely affected by new business park, office or retail uses with regard to light and glare. Currently there are no land uses on either side of Pepper Avenue that would generate nighttime lighting of

buildings or parking lots to be considered a nuisance to the ARMC. Planning areas that surround the ARMC are shown in Exhibit 3-11, in the EIR Project Description.

Likewise, lighting associated with development in the project could adversely affect the DSF and other species that will occupy the conservation planning areas (3, 6, 11, and 18 as well as the existing Hospital Conservation Site and Pepper Avenue Conservation Site located adjacent to Planning Area 23).

Mitigation measure AES-3 requires that all new development projects in the project area prepare and submit lighting plans with their development plans. In addition in planning areas adjacent to the ARMC, AES-4 requires that lighting plans also be reviewed and approved by the San Bernardino County Land Use Services Department. Compliance with these measures will ensure that potential impacts on light and glare would be less than significant.

4.1.3.3 Mitigation Measures

In addition to the development guidelines, the following measures are recommended to mitigate for potentially adverse impacts to aesthetic resources:

AES-1 Applicants submitting development review applications on sites in the project area shall prepare and submit a landscape plan along with their site plan to the City of Colton that meets the requirements of the City Municipal Code and is consistent with the adopted Specific Plan Landscape Design Guidelines of the CHCCSP Project.

AES-2 Landscaping and revegetation of graded areas shall occur as soon as practical after grading, to minimize the potential for erosion as well as to reduce the potential for visual and aesthetic impacts.

AES-3 Applicants submitting development review applications on sites in the project area along with their site plans shall prepare and submit a Lighting Plan with photometric analysis to the City of Colton that identifies the proposed luminosity and location of all lighting fixtures, the orientation of the fixtures, the types of shielding that will be used to avoid producing glare, the type of shielding that would minimize light spillover, and demonstrate through the photometric analysis of how the fixtures would avoid the spread of stray light across site boundaries. Lighting specifications that reduce light and glare shall comply with City of Colton requirements and shall appear as notes on the building plans.

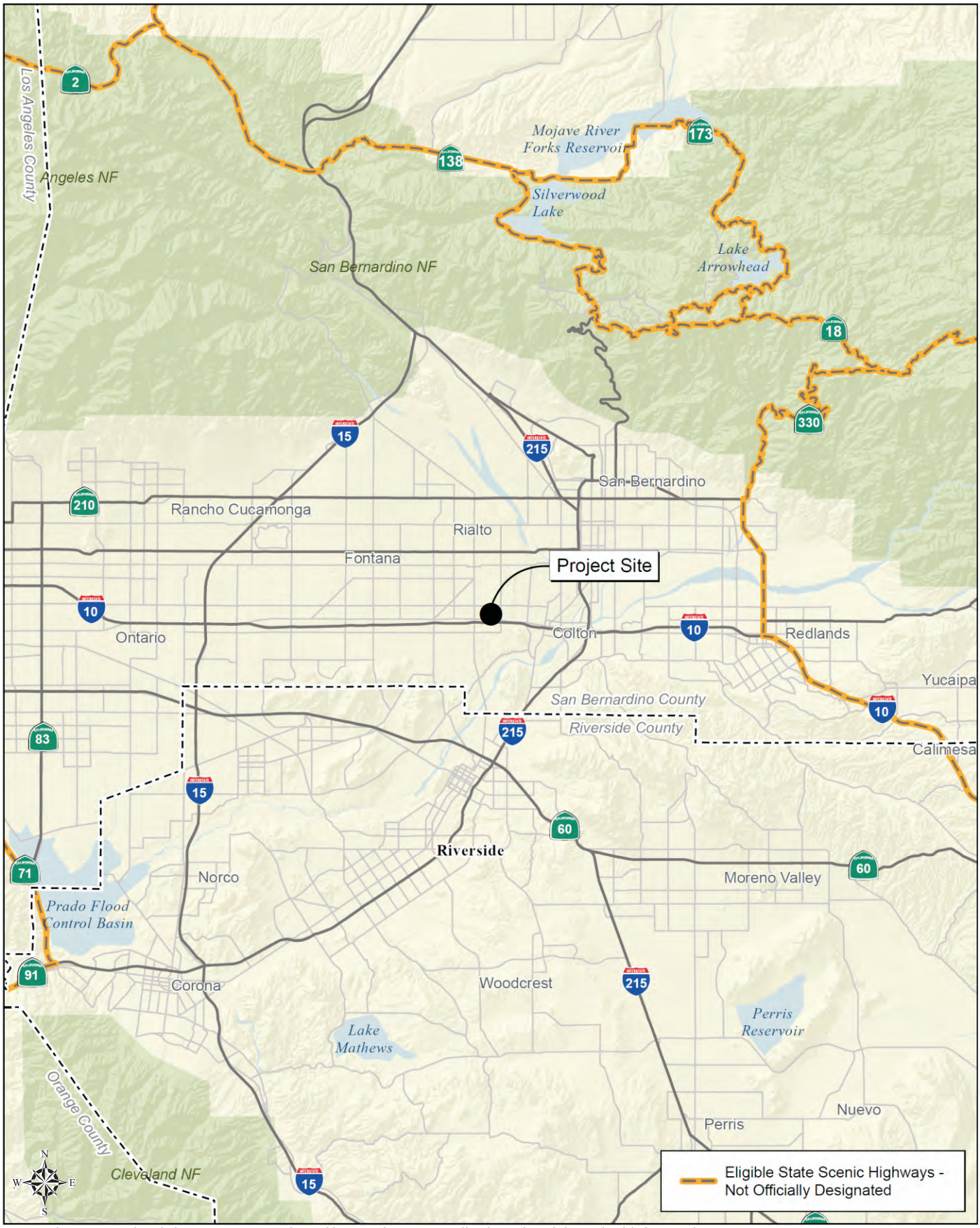
AES-4 Applicants submitting development review applications for projects within Planning Areas 16, 20, 22 (retail), and Planning Areas 21, 23, 24 (office- and retail-mixed) shall prepare and submit site plans including building elevations and lighting plans with photometric lighting analysis to the County of San Bernardino Land Uses Services Department for review and comment, that identifies the proposed luminosity and location of all lighting fixtures, the orientation of the fixtures, the types of shielding that will be used to avoid producing glare, the type of shielding that would minimize light spillover, and demonstrate through the photometric analysis of how the fixtures would avoid the spread of stray light across site boundaries into the ARMC site. Lighting specifications that reduce light and glare shall appear as notes on the building plans.

In addition to these measures, Mitigation Measure BIO-10b is a measure specific to light and glare emanating from properties adjacent to DSF habitat conservation areas.

BIO-10(b) Permanent lighting in developed areas adjacent to DSF habitat conservation areas (planning areas 3, 6, 11, and 18, habitat set aside at the Hermosa Gardens Cemetery, 6.8 acre conservation site on the north side of Valley Blvd, east of Pepper Avenue) shall be shielded to minimize impacts to DSF and other wildlife. Each project proponent subject to this measure shall prepare a lighting plan for review and approval by the Development Services Director or his designee.

4.1.3.4 Level of Significance After Mitigation

The level of impact after mitigation measures are implemented will be less than significant for all issues associated with aesthetics, scenic resources, visual character, and light and glare.

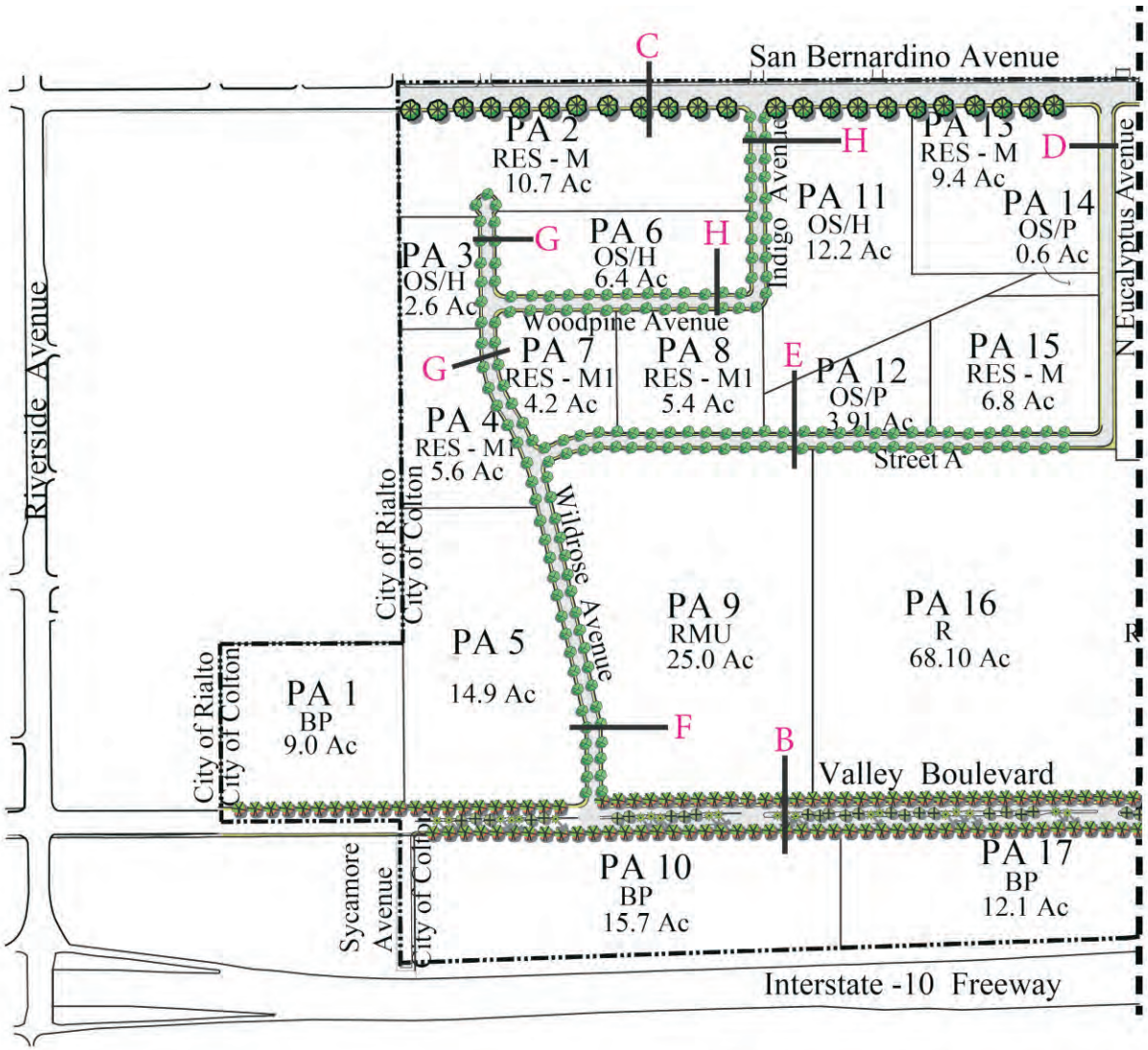


Source: Caltrans Scenic Highways Program http://www.dot.ca.gov/hq/LandArch/scenic_highways/

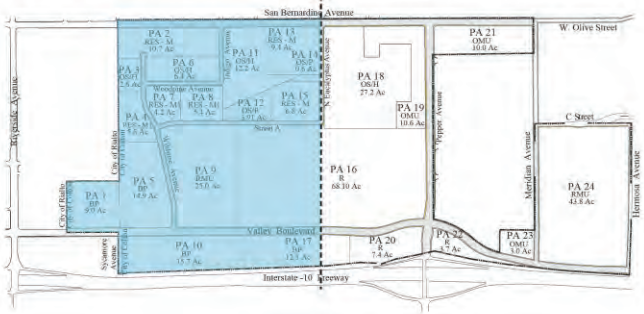
The Altum Group

State Scenic Highways
CHCCSP Environmental Impact Report

Exhibit 4.1-1



Key Map



LEGEND:

A - Pepper Avenue
Phoenix dactylifera
Date Palm
Jacaranda mimosifolia
Jacaranda
Brachychiton populeus
Bottletree
Geijera parvifolia
Australian willow

B - Valley Boulevard
Phoenix dactylifera
Date Palm
Magnolia grandiflora
Southern Magnolia
Pistacia chinensis
Chinese pistache

C - San Bernardino Avenue
Tipuana Tipu
Carrotwood

D- Eucalyptus Avenue
Fraxinus uhdei "Majestic Beauty"
Evergreen Ash

E- Street A
Tipuana tipu

F - Wildrose Avenue
Magnolia grandiflora

G - Wildrose Avenue
Geijera parvifolia

H - Indigo Avenue / Woodpine Avenue
Platanus acerifolia

I - Meridian Avenue
Tipuana tipu

J - C Street
Platanus acerifolia

K - Hermosa Avenue
Geijera parvifolia

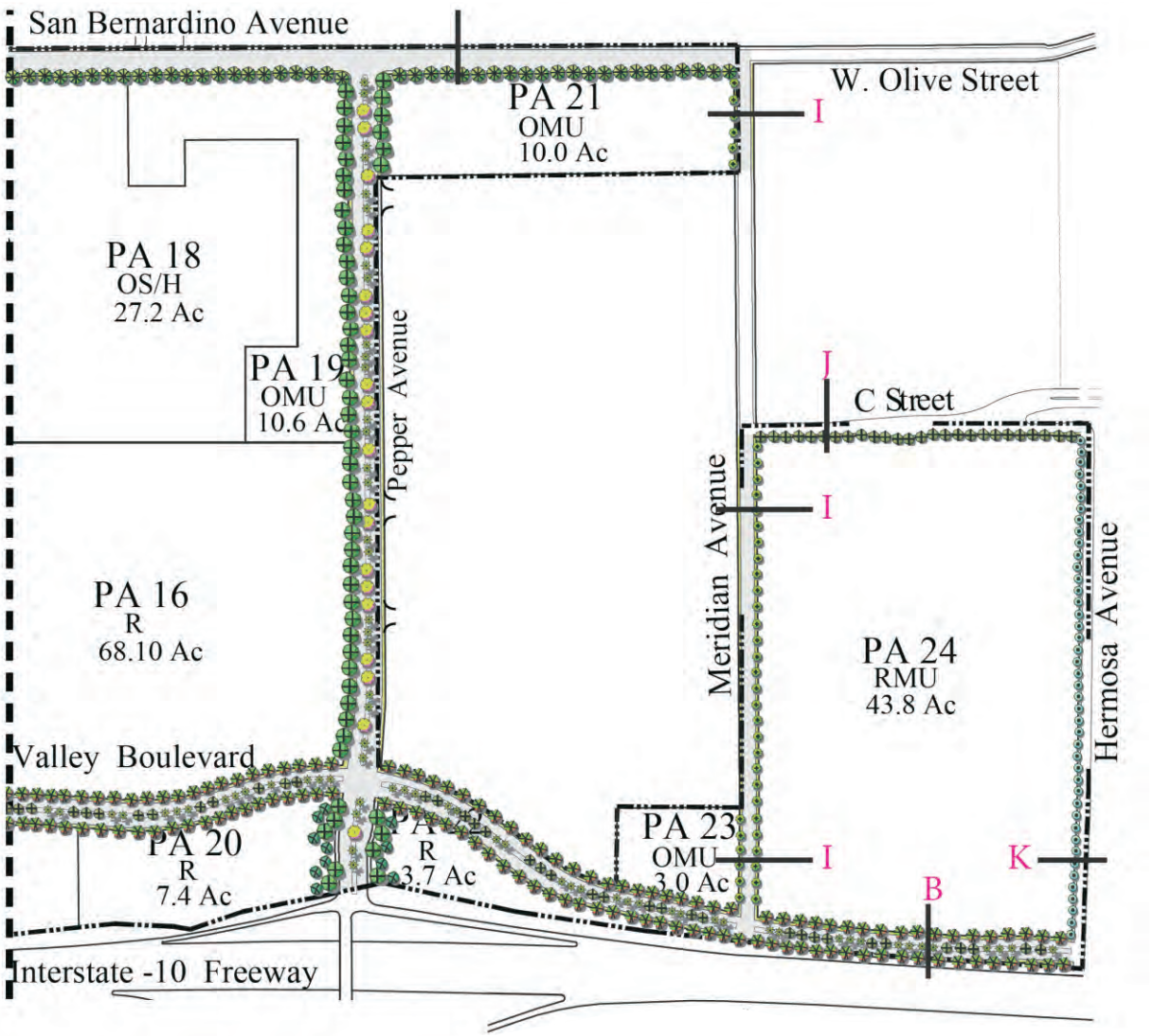
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Source: JHA Consulting 2013

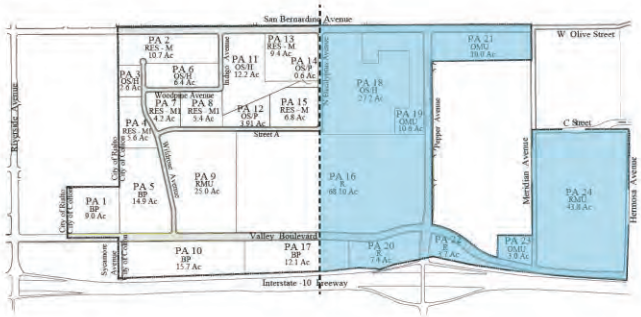
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Streetscape Master Plan - West Side
CHCCSP Environmental Impact Report

Exhibit
4.1-2



Key Map



LEGEND:

A - Pepper Avenue
Phoenix dactylifera
Date Palm
Jacaranda mimosifolia
Jacaranda
Brachychiton populneus
Bottletree
Geijera parvifolia
Australian willow

B - Valley Boulevard
Phoenix dactylifera
Date Palm
Magnolia grandiflora
Southern Magnolia
Pistacia chinensis
Chinese pistache

C - San Bernardino Avenue
Tipuana Tipu
Carrotwood

D- Eucalyptus Avenue
Fraxinus uhdei "Majestic Beauty"
Evergreen Ash

E- Street A
Tipuana tipu

F - Wildrose Avenue
Magnolia grandifloria

G - Wildrose Avenue
Geijera parvifolia

H - Indigo Avenue / Woodpine Avenue
Platanus acevifolia

I - Meridian Avenue
Tipuana tipu

J - C Street
Platanus acevifolia

K - Hermosa Avenue
Geijera parvifolia

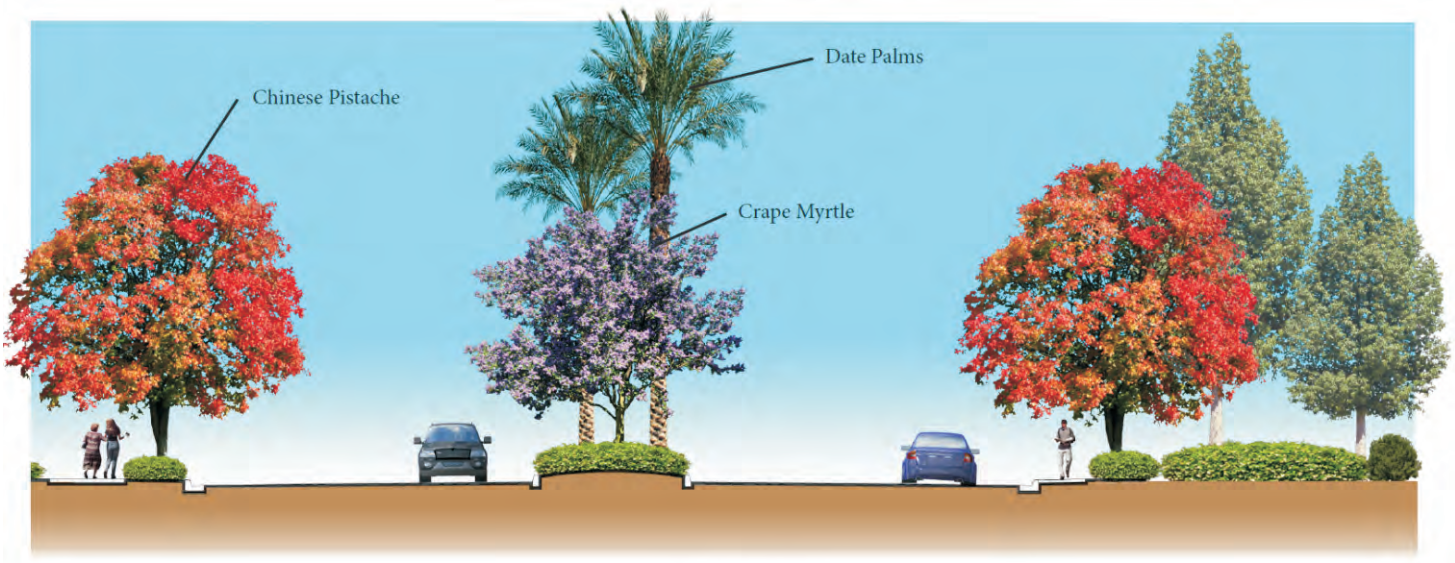
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Source: JHA Consulting 2013

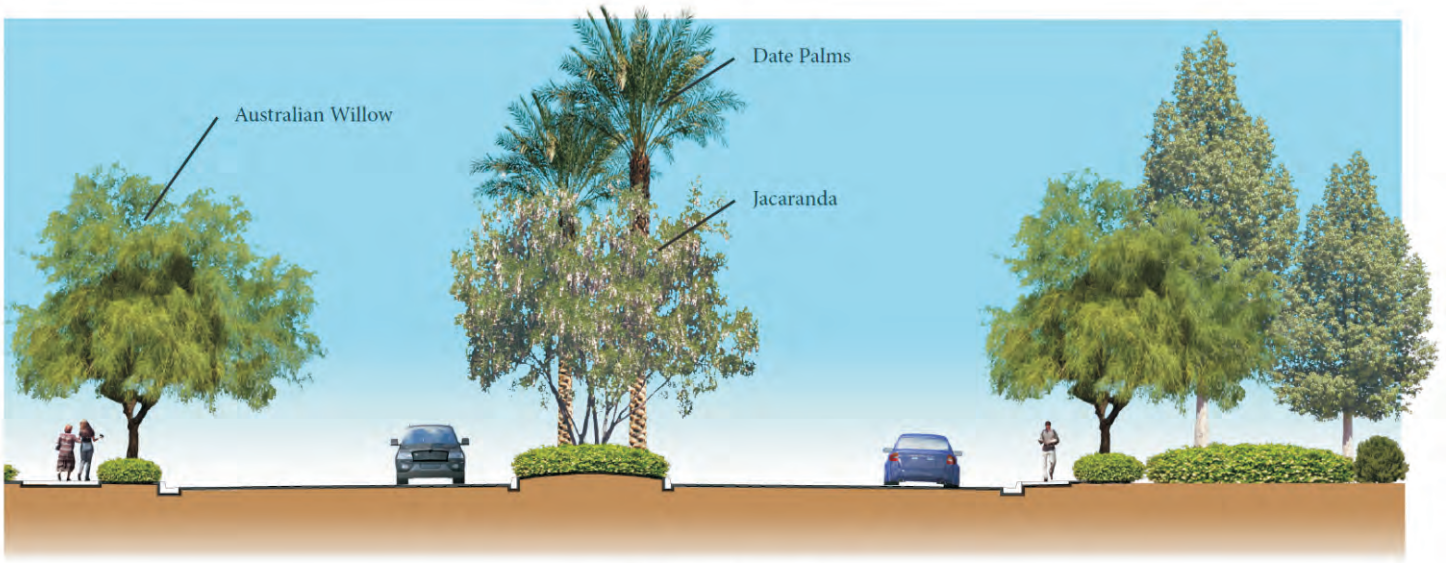
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Streetscape Master Plan - East Side
CHCCSP Environmental Impact Report

Exhibit
4.1-3



Valley Boulvard

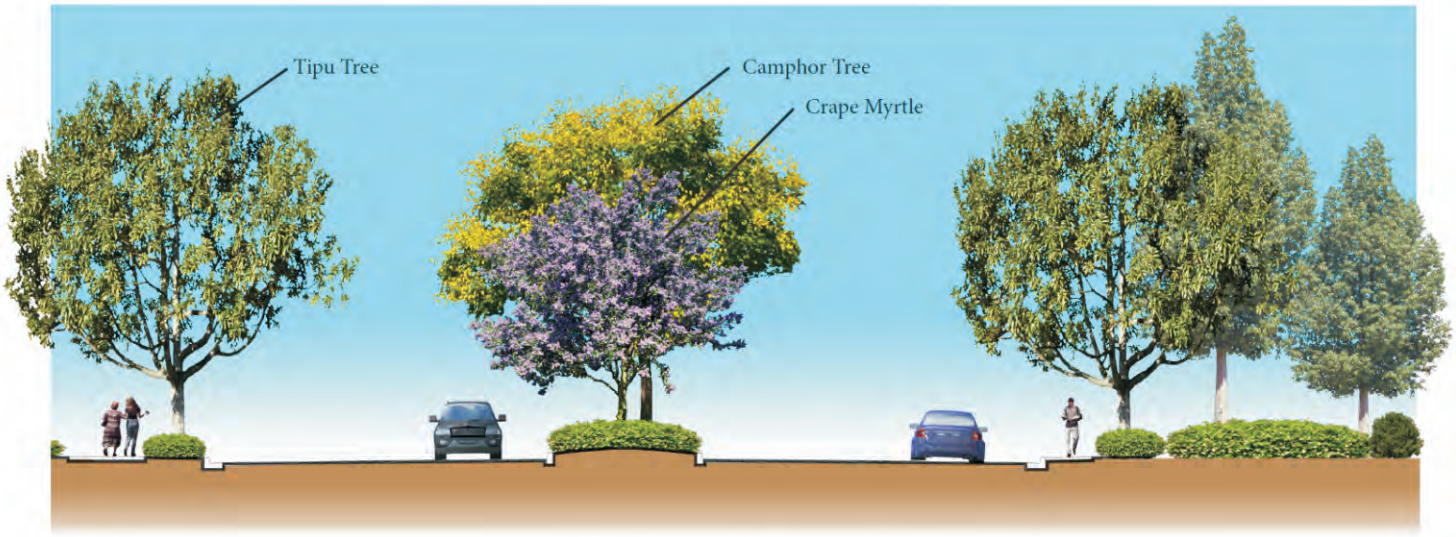


Pepper Avenue

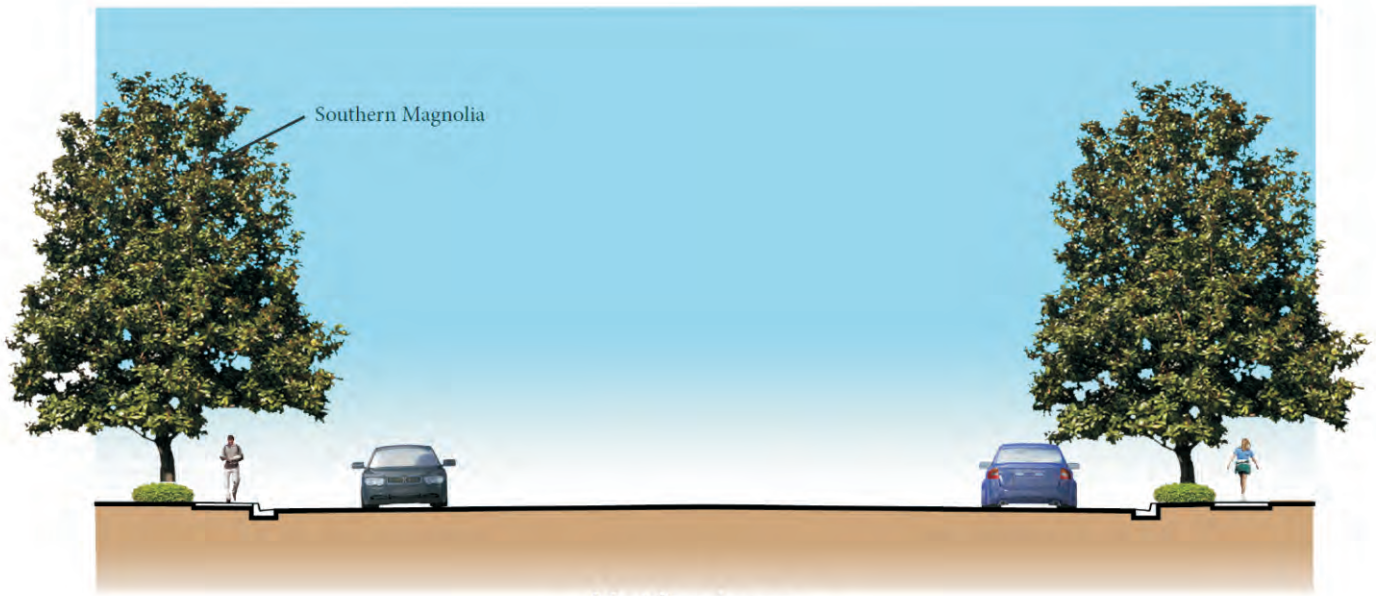
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Streetscape Sections - Valley and Pepper
CHCCSP Environmental Impact Report

Exhibit
4.1-4



San Bernardino Avenue

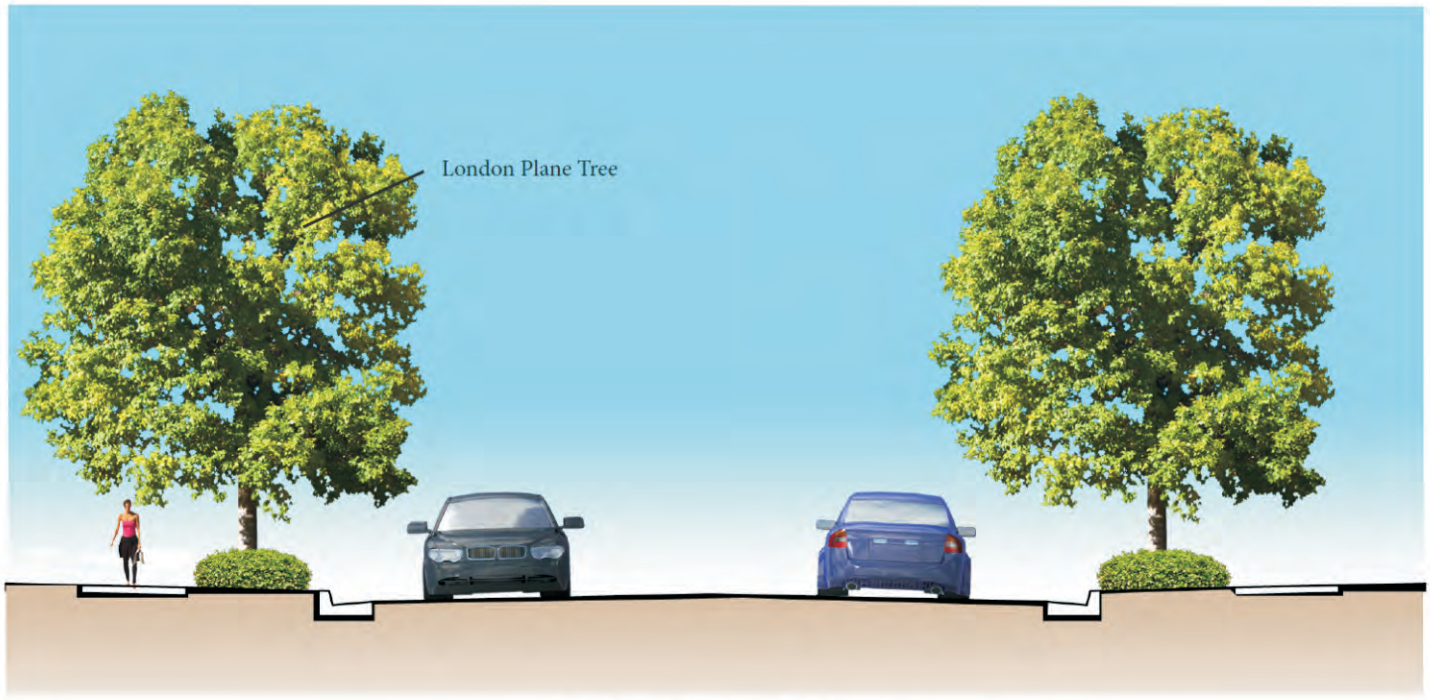


Meridian Avenue

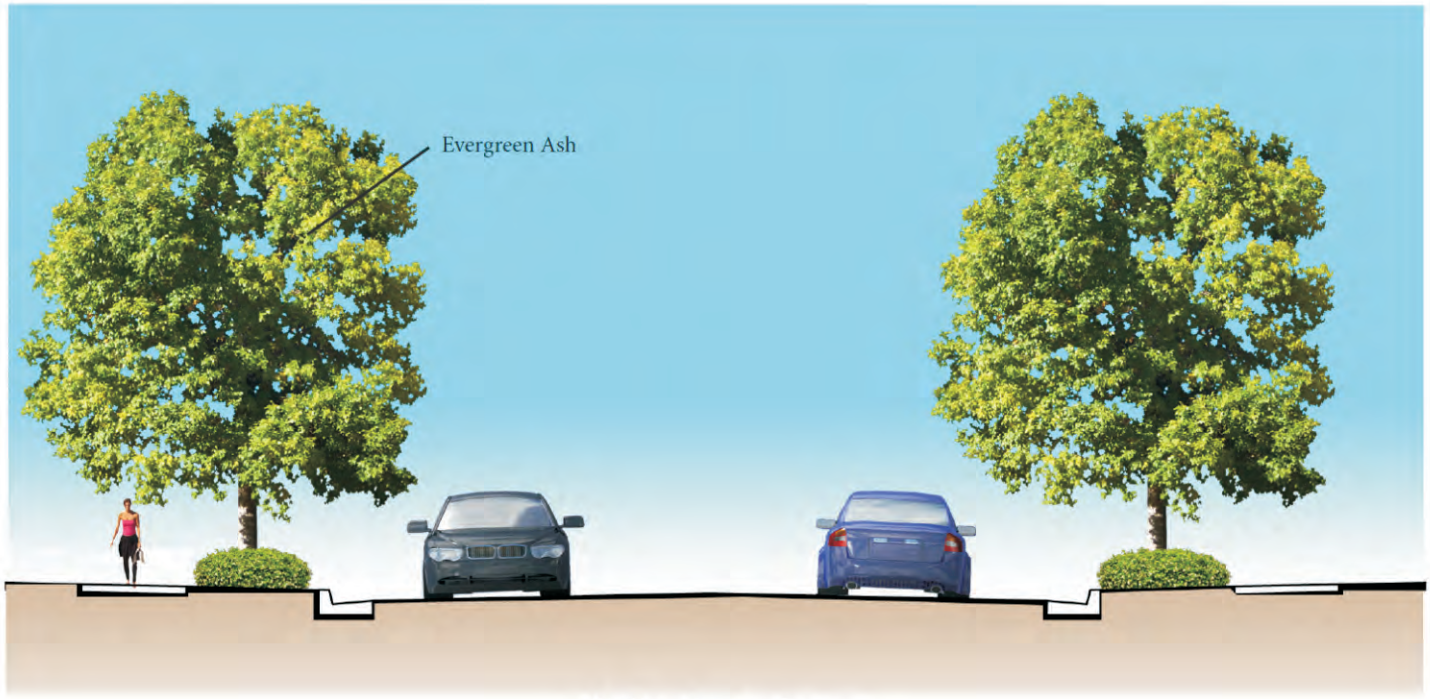
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Streetscape Sections - San Bernardino and Meridian
CHCCSP Environmental Impact Report

Exhibit
4.1-5



Indigo Avenue / C Street

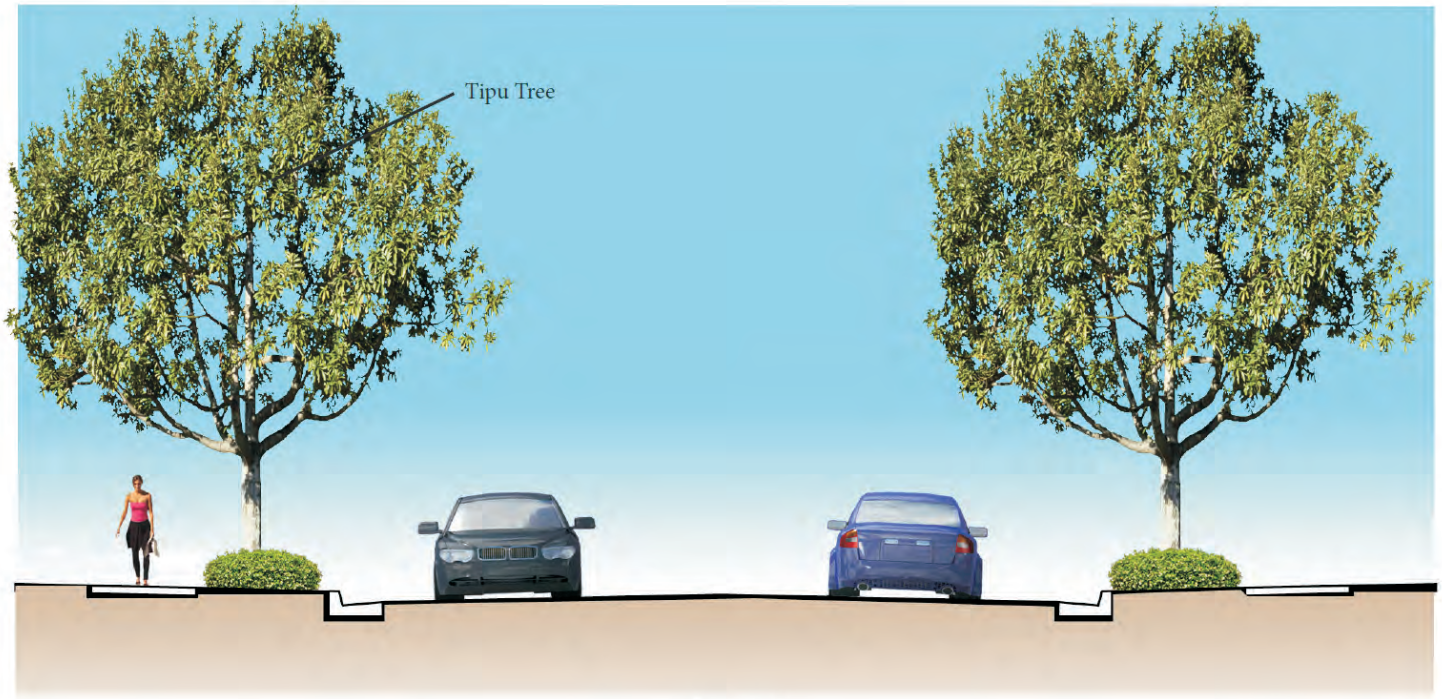


N. Eucalyptus Avenue

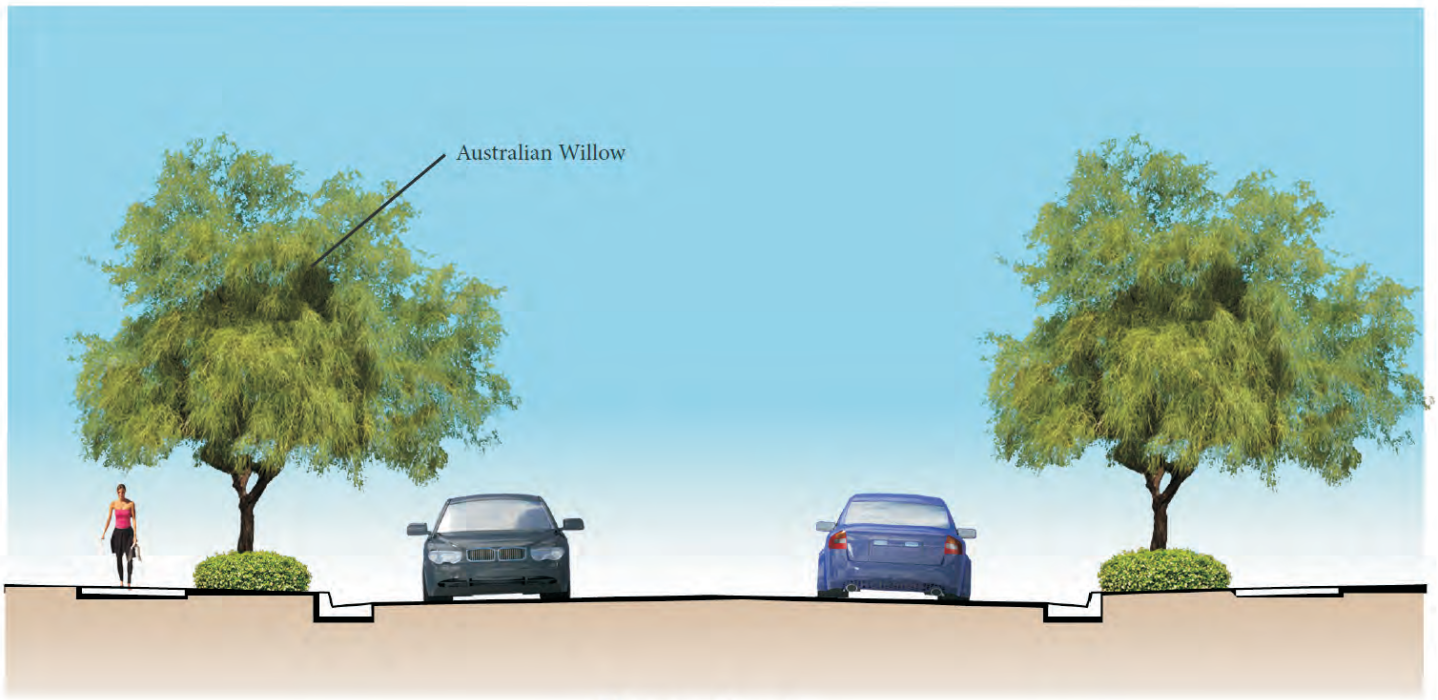
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Streetscape Sections - Indigo and Eucalyptus
CHCCSP Environmental Impact Report

Exhibit
4.1-6



Street A

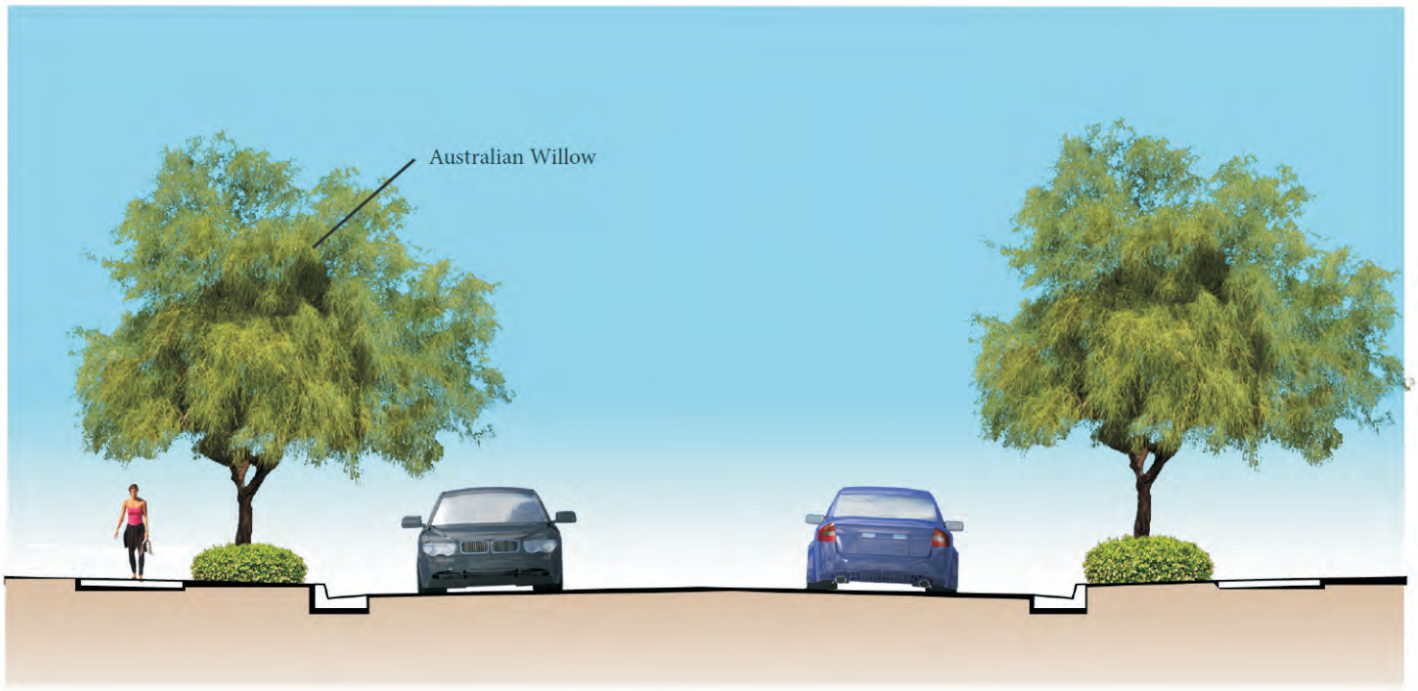


Hermosa Street

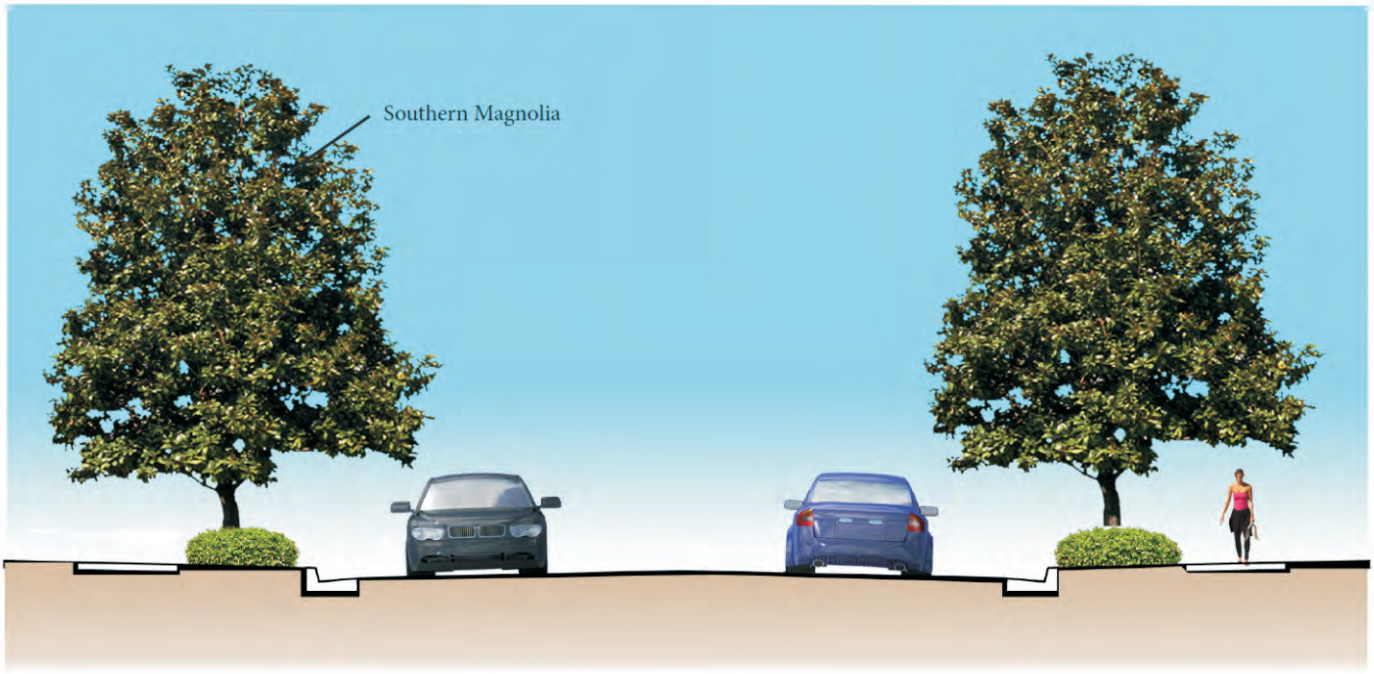
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Streetscape Sections - Street A and Hermosa
CHCCSP Environmental Impact Report

Exhibit
4.1-7



Wildrose Street A



Wildrose Street B

The Altum Group

Streetscape Sections - Wildrose Streets A and B
CHCCSP Environmental Impact Report

Exhibit
4.1-8

4.2.1 Introduction

This section describes the existing agricultural and forest resources and potential effects from implementation of development projects in the CHCCSP project area and the surrounding area. Descriptions and analysis in this section are based on information contained in the Farmland Mapping and Monitoring Program (FMMP) developed by the California Department of Conservation (2010) and the Land Cover Mapping and Monitoring Program (LCMMP) conducted by the California Department of Forestry and Fire Protection between 1992 and 2002. The Phase I Environmental Site Assessment (ESA) prepared for the WVSPA project area in 2008 was also used to evaluate agricultural resources, as the ESA provided historic photographs, topographic maps, and narrative related to the past use of the area for agriculture.

4.2.2 - Environmental Setting

4.2.2.1 Regulatory Framework

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (the Williamson Act, Government Code Sections 51200 through 51297.4) encourages the preservation of agricultural lands through tax incentives due to the increasing trend toward the conversion of agricultural lands to urban uses. The act enables counties and cities to designate agricultural preserves (Williamson Act lands) and within these preserves, offer preferential taxation to agricultural landowners based on the agricultural income producing value of the property. Essentially, this approach ties real estate tax rates to the agricultural value of the land rather that the market rate, which can escalate rapidly as areas around a farm or dairy convert to urban uses. In return for the preferential tax rate, the landowner is required to sign a contract with the county or city agreeing not to develop the land with non-agricultural uses for a minimum of 10 years. On the anniversary, date of the contract it is renewed automatically, unless a notice of non-renewal or petition for cancellation is filed.

State Farmland Mapping and Monitoring Program

The California Department of Conservation (CDC) established the Farmland Mapping and Monitoring Program (FMMP) in 1982. The FMMP is a non-regulatory program and 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. Prime agricultural land is rated according to soil quality and irrigation status and identified by the following categories, collectively referred to as Farmland,

Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of local Importance, Urban and Built-Up Land and Other Land. Descriptions of the categories applicable to the project area follow.

Urban and Built-Up Land is defined as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.

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.

State Forest Land Cover Mapping and Monitoring Program

The LCMMP conducted between 1992 and 2002 by the California Department of Forestry and Fire Protection (CALFIRE) and the United State Department of Agriculture Forest Service Region, for the purpose of enhancing fire protection and natural resource management on public and private lands in California. Remotely sensed data and GIS (geographic information systems) are used to enhance fire protection and natural resource management on public and private lands in California. This program generates data that describes the extent and condition of various land cover types, and the magnitude and cause of land cover changes. The following cover types are assigned to land within the state; Conifer, Mix, Hardwood, Shrub, Grass, Barren, Agriculture, Urban, Ice/Snow.

Within the CHCCSP project area the specific vegetation type is non-Native/Ornamental Conifers/Hardwood. Colton does not have a zone allowing for the preservation and/or harvesting of forest land because much of the City is urbanized.

4.2.2.2 Existing Conditions in the Project Area

According to the Phase I Environmental Site Assessment prepared for the project area in 2008, portions of the project area appear to have been used for dry farming/grazing activities possibly as early as the early 20 century (See Appendix F). However, the previous agricultural uses at the project site were discontinued. The majority of the western portion of the site currently includes vacant land, commercial retail areas, a commercial bakery and a County social services office use. The majority of the central portion of the site currently includes a private golf course (Colton Golf Club) and a city park. Additionally, various commercial buildings occur to the north and south of Valley Blvd, including a vacant former automobile

dealership (Moss Brothers Ford) and other small businesses. The majority of the eastern portion of the project area currently includes vacant land and commercial retail uses. No sites in the project area are under an active Williamson Act contract.

The Farmland Mapping and Monitoring Program designates the majority of the site as Urban and Built-Up Land. Additionally, small areas within the northeast and southwest portions of the project site are designated as Other Land. There is no forest land in or near the project area.

4.2.3 Environmental Impacts and Mitigation Measures

4.2.3.1 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. 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) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?
d) Result in the loss of forest land or conversion of forest land to non-forest use?
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

4.2.3.2 Impact Analysis

Agriculture and Forestry Resources

a-e) Convert Farmland or Conflict with Existing Zoning for Agricultural Use, or Conflict W*ith Existing Zoning for, or Cause Rezoning of Forest Land *(CEQA Threshold 2(a) through 2(e)

Farmland

Threshold (2) a: According to the Farmland Mapping and Monitoring Program (FMMP) maps and statistical data used for analyzing impacts on California's agricultural resources, a majority of the site is designated as Urban and Built-Up Land, while the northwest and southeast portions of the project site are designated as Other Land. As described in Section 4.2.2.1,

Regulatory Framework, the FMMP defines Urban and Built-Up Land as land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Additionally, according to the FMMP, Other Land is defined as land not included in any other mapping category. Consequently, the project area is not classified as having prime farmland or farmland of local significance. Therefore, implementation of new development projects in the CHCCSP project area will not convert farmland to a non-agricultural use and impacts are less than significant.

Threshold (2) b: Currently, the project area is governed by the West Valley Specific Plan, which was approved by the City in 1996 and carries a zoning of Specific Plan. Consequently, conversion of vacant land in the project area to uses proposed under the CHCCSP would not conflict with the existing zoning of the Specific Plan. Additionally, no sites in the CHCCSP project area are currently under a Williamson Act Land Conservation Contract. Therefore, impacts to existing zoning for agricultural use or Williamson Act contract will be less than significant.

New projects in the CHCCSP project area would not result in any new conversion of farmland not previously identified and analyzed by the California Department of Conservation (CDC). In addition, areas surrounding the project area are also designated as Urban and Built-Up Land and Other Land. Consequently, implementation of the CHCCSP would not interfere with existing or proposed agricultural uses outside of the project area. Therefore, there are no impacts to agricultural resources.

Forest Land

Threshold (2) c and (2) d: As noted above, the project area is governed by the West Valley Specific Plan, which was approved by the City in 1996 and carries a zoning of Specific Plan, therefore, the proposed plan does not conflict with any areas zoned forest land or timberland zoned areas. Development of new projects in the CHCCSP project area would not result in any new conversion of forest land not previously identified and analyzed by the California Department of Forestry and Fire Protection (CALFIRE) and the United States Forest Service. The area's specific vegetation type is Non-Native/Ornamental Conifers/Hardwood. The City of Colton does not have a zone allowing for the preservation and/or harvesting of forest land because much of the City is urbanized. In addition, due to the number and type of non-native and ornamental trees, and due to the existing park and urban uses, this area has negligible value as harvestable forest land. Therefore, the impacts in this regard would be less than significant.

Threshold (2) e: See responses to Thresholds (2) a through (2) d above.

4.2.3.3 Mitigation Measures

No Mitigation Measures required.

4.2.3.4 Level of Significance After Mitigation

N/A

4.3.1 Introduction

This section describes the existing air quality setting and potential effects from project implementation in the project area and its surrounding area. Descriptions and analysis in this section are based on information contained in the *Colton's Hub City Centre Specific Plan Air Quality, Global Climate Change and Health Risk Assessment Impact Analysis*, prepared by Kunzman Associates, February, 2014; and *Air Quality Assessment for West Valley Specific Plan Amendment, City of Colton*, prepared by Mestre Greve Associates, September 2008. Both reports are included in Appendix B. The 2008 assessment was reviewed by Kunzman Associates and found to still be relevant for issues associated with health risks. As such both assessments are included in Appendix B.

4.3.2 Environmental Setting

4.3.2.1 Atmospheric Setting

The project site is located within the western portion of San Bernardino County, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter. The project site is located toward the northeast portion of the South Coast Air Basin near the foot of the San Bernardino Mountains, which define the eastern boundary of the South Coast Air Basin.

The climate of western San Bernardino County, technically called an interior valley subclimate of the Southern California's Mediterranean-type climate, is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern. The clouds and fog that form along the area's coastline rarely extend as far inland as western San Bernardino County. When morning clouds and fog form, they typically burn off quickly after sunrise. The most important weather pattern from an air quality perspective is associated with the warm season airflow across the populated areas of the Los Angeles Basin. This airflow brings polluted air into western San Bernardino County late in the afternoon. This transport pattern creates unhealthful air quality that may extend to the project site particularly during the summer months.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in western San Bernardino County are usually

light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but as discussed above, these coastal winds carry significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the South Coast Air Basin into the interior valleys, which become trapped by the mountains that border the eastern edge of the South Coast Air Basin.

In the summer, strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Colton are shown below in Table 1. Table 1 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

4.3.2.2 Regulatory Setting

The proposed project is addressed through the efforts of federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are briefly discussed here.

Federal

United States Environmental Protection Agency

The Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The NAAQS pollutants were identified using medical evidence and are shown below in Table 4.3-1, *State and Federal Criteria Pollutant Standards*.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The State Implementation Plan (SIP) must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the State Implementation Plan (SIP).

As shown in Table 4.3-2, *South Coast Air Basin Attainment Status*, the Basin has been designated by the EPA as a non-attainment area for ozone (O_3) and suspended particulates (PM_{10} and $PM_{2.5}$). Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2).

In 2011, the Basin exceeded federal standards for either ozone or $PM_{2.5}$ at one or more locations on a total of 124 days, based on the current federal standards for 8-hour ozone and 24-hour $PM_{2.5}$. Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Basin still exceed the NAAQS for ozone more frequently than any other stations in the U.S. In 2011, three of the top five stations that exceeded the 8-hour ozone NAAQS were located in the Basin (Central San Bernardino Mountains, East San Bernardino Valley, and Metropolitan Riverside County).

$PM_{2.5}$ in the Basin has improved significantly in recent years, with 2010 and 2011 being the cleanest years on record. In 2011, only one station in the Basin (Metropolitan Riverside County at Mira Loma) exceeded the annual $PM_{2.5}$ NAAQS and the 98th percentile form of the 24-hour $PM_{2.5}$ NAAQS, as well as the 3-year design values for these standards. Basin-wide, the federal $PM_{2.5}$ 24-hour standard level was exceeded in 2011 on 17 sampling days.

The Basin is currently in attainment for the federal standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), and nitrogen dioxide (NO_2). While the concentration level of the new 1-hour NO_2 federal standard (100 ppb) was exceeded in the Basin at two stations (Central Los Angeles and Long Beach) on the same day in 2011, the NAAQS NO_2 design value has not been exceeded. Therefore, the Basin remains in attainment of the NO_2 NAAQS.

The EPA designated the Los Angeles County portion of the Basin as nonattainment for the recently revised (2008) federal lead standard (0.15 µg/m3, rolling 3-month average), due to the addition of source-specific monitoring under the new federal regulation.

Table 4.3-1 State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.075 ppm/8-hour	(a) Pulmonary function decrements 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.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris 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.
Nitrogen Dioxide (NO_2)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(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.
Sulfur Dioxide (SO_2)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3/24-hour 20 µg/m^3/annual	150 µg/m^3/24-hour	(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 elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3/24-hour 15 µg/m^3/annual	
Sulfates	25 µg/m^3/24-hour	No Federal Standards	(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	1.5 µg/m^3/30-day	0.15 µg/m^3/3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.

Table 4.3-1 State and Federal Criteria Pollutant Standards (Continued)

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 4.3-2, South Coast Air Basin Attainment Status

Pollutant	Averaging Time	National Standards[1]	Attainment Date[2]	California Standards[3]
1979 1-Hour Ozone[4]	1-Hour (0.12 ppm)	Nonattainment (Extreme)	11/15/2010 (Not attained[4])	Extreme Nonattainment
1997 8-Hour Ozone[5]	8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024	Nonattainment
2008 8-Hour Ozone	8-Hour (0.075 ppm)	Nonattainment (Extreme)	12/31/2032	
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (Attained)	Maintenance
NO_2[6]	1-Hour (100 ppb) Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (Attained)	Attainment
SO_2[7]	1-Hour (75 ppb)	Designations Pending	Pending	Attainment
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassifiable/ Attainment	3/19/1979 (Attained)	
PM_{10}	24-Hour (150 µg/m^3)	Nonattainment (Serious)[8]	12/31/2006 (Redesignation request submitted)[8]	Nonattainment
$PM_{2.5}$	24-Hour (35 µg/m^3)	Unclassifiable/ Attainment	Attained	Unclassified
Lead	3-Months Rolling (0.15 µg/m3)	Nonattainment (Partial)[9]	12/31/2015	Nonattainment

Source: Draft 2012 AQMP, SCAQMD, 2012.

Notes:

1. *EPA often only declares Nonattainment areas; everywhere else is listed as Unclassified/ Attainment or Unclassifiable.*

2. A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration
3. Obtained from http://www.arb.ca.gov/desig/adm/adm.htm.
4. 1-hour O_3 standard (0.13 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard based on 2008-2010 data has and some continuing obligations under the former standard
5. 1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the 1997 O3 standard and most related implementation rules remain in place until the 1997 standard is revoked by U.S. EPA.
6. New NO_2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO_2 standard retained.
7. The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations expected in 2012, with SSAB designated Unclassifiable/Attainment.
8. Annual PM_{10} standard was revoked, effective December 18, 2006; redesignation request to Attainment of the 24-hour PM_{10} standard is pending with U.S. EPA
9. Partial Nonattainment designation - Los Angeles County portion of Basin only.

This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard in the 2007-2009 period of data used. For the most recent 2009-2011 data period, only one of these stations (Vernon) still exceeded the lead standard.

State

California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 4.3-1 above. In addition, CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The South Coast Air Basin has been designated by the CARB as a nonattainment area for ozone, PM_{10} and $PM_{2.5}$. Currently, the South Coast Air Basin is in attainment with the ambient air quality standards for CO, lead, SO_2, NO_2, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, CARB revised the PM_{10} annual average standard to 20 µg/m3 and established an annual average standard for $PM_{2.5}$ of 12 µg/m3. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and $PM_{2.5}$ Standards. The plan projects attainment for the 8-hour Ozone standard by 2024 and the $PM_{2.5}$ standard by 2015.

On December 12, 2008 CARB adopted Resolution 08-43, which limits NO_x, PM_{10} and $PM_{2.5}$ emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the South Coast Air Basin. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

Legislation and Executive Orders

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 and S-21-09

Senate Bill 1078 (SB 1078) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop

alternative best management practices for the water sector. In addition SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. CalEEMod modeling defaults to 2008 standards. 2013 Standards became effective on January 1, 2014.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

All buildings for which an application for a building permit is submitted on or after January 1, 2014 must follow the 2013 standards. The 2013 standards are estimated to be 30 percent more efficient than the 2008 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Regional

South Coast Air Quality Management District (SCAQMD)

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. A revised draft of the 2012 AQMP was released on September, 2012, was adopted by the SCAQMD Board on December 7, 2012, and was adopted by CARB via Resolution 13-3 on January 25, 2013. The 2012 AQMP was prepared in order to meet the federal Clean Air Act requirement that all 24-hour $PM_{2.5}$ non-attainment areas prepare a SIP, that were required to be submitted to the U.S. EPA by December 14, 2012 and demonstrate attainment with the 24-hour $PM_{2.5}$ standard by 2014. The 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 in the Basin through adoption of all feasible measures, and therefore, no extension of the attainment date is needed.

The 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These “black box” emissions reductions represent 65 percent of the remaining NO_x emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions, additional NO_x control measures have been provided in this AQMP even though the primary purpose of this AQMP is to show compliance with 24-hour $PM_{2.5}$ emissions standards.

The 2012 AQMP is designed to satisfy the California Clean Air Act’s (CCAA) emission reductions of 5 percent per year or adoption of all feasible measures requirements and fulfill the EPA’s requirement to update transportation conformity emissions budgets based on the latest

approved motor vehicle emissions model and planning assumptions. The 2012 AQMP updates and revises the previous 2007 AQMP. The 2012 AQMP was prepared to comply with the Federal and State CCAA and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet Federal and State ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive program that will lead this area into compliance with all federal and state air-quality planning requirements.

The 2012 AQMP builds upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilizes revised emissions inventory projections that use 2008 as the base year. On-road emissions are calculated using CARB EMFAC2011 emission factors and the transportation activity data provided by SCAG from their 2012 Regional Transportation Plan (2012 RTP). Off-road emissions were updated using CARB's 2011 In-Use Off-Road Fleet Inventory Model. Since the 2007 AQMP was finalized, new area source categories such as LPG transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in reaching the GHG target goals in the AB32 Scoping Plan.

The control measures in the 2012 AQMP consist of three components: 1) Basin-wide and episodic short-term $PM_{2.5}$ measures; 2) Section 182(e)(5) implementation measures; and 3) Transportation control measures. Many of the control measures are not based on command and control regulations, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes. More broadly, a transition to zero- and near-zero emission technologies is necessary to meet 2023 and 2032 air quality standards and 2050 climate goals. Many of the same technologies will address both air quality and climate needs.

During construction and operation, the project must comply with applicable rules and regulations. The following are rules the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 445 prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less

than one million British thermal units per hour.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
(2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other

pollutants.

SCAQMD Rule 1401, New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated MPO for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

Local

Local jurisdictions, such as the City of Colton, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2007 and 2012 AQMPs. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by

conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the County relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

4.3.2.3 Pollutants

Pollutants and Associated Health Effects

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards (Table 4.2-1) have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary description of the criteria pollutants and associated health effects are provided here, then a description of some non-criteria pollutants of concern.

Nitrogen Oxides (NO_x)

Nitrogen Oxides (NO_x) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x is colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NO_x form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore controlling NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NO_x and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x and VOC that help form ozone. Ground-level ozone is the primary

constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NO_x and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are sources of CO indoors. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

Sulfur Oxide (SO_x) gases are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SO_x dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful

to people and the environment.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers.

Particulate Matter

Particle matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particle matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM_{10}) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter ($PM_{2.5}$) have been designated as a subset of PM_{10} due to their increased health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds (VOC)

Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.

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nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter ($PM_{2.5}$) have been designated as a subset of PM_{10} due to their increased health impacts and its ability to remain suspended in the air longer and travel further.

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Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, but they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2005 California Almanac of Emissions and Air Quality, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). DPM is a subset of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a toxic air contaminant in 1998 led CARB to adopt the Risk Reduction Plan to Reduce Particulate

Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestos from fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in San Bernardino County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

Monitored Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the *Final 2012 Air Quality Management Plan*, prepared by SCAQMD, December 2012, indicate that collectively, mobile sources account for 59 percent of the VOC, 88 percent of the NO_x emissions and 40 percent of directly emitted $PM_{2.5}$, with another 10 percent of $PM_{2.5}$ from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Central San Bernardino Valley Air Monitoring Area (Area 34), which is located in San Bernardino County and covers the area from the Riverside County line on the south to

approximately I-15 Freeway on the north and west and Highland to the east. The nearest air monitoring station to the project site is the San Bernardino – 4th Street Air Monitoring Station (San Bernardino Station). The San Bernardino Station is located approximately 5.1 miles northeast of the project site at 24302 4th Street, San Bernardino. Table 4.3-3, *Local Area Air Quality Levels From The San Bernardino 4th Street Air Monitoring Station*, presents the monitored pollutant levels from the San Bernardino Station. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

The monitoring data presented in Table 4.3-3 shows that ozone and particulate matter (PM_{10} and $PM_{2.5}$) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

During the 2010 to 2012 monitoring period, the State 1-hour concentration standard for ozone has been exceeded between 27 and 41 days each year at the San Bernardino Station. The State 8-hour ozone standard has been exceeded between 60 and 77 days each year over the past three years at the San Bernardino station. The Federal 8-hour ozone standard was exceeded between 39 and 54 days each year over the past three years at the San Bernardino station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The San Bernardino did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide

The San Bernardino station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Table 4.3-3 Local Area Air Quality Levels from the San Bernardino Air Monitoring Station

Pollutant (Standard)[1]	Year		
	2010	2011	2012
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.129	0.135	0.124
Days > CAAQS (0.09 ppm)	**27**	**40**	**41**
Maximum 8-Hour Concentration (ppm)	0.104	0.121	0.109
Days > NAAQS (0.08 ppm)	**40**	**39**	**54**
Days > CAAQS (0.070 ppm)	**60**	**66**	**77**
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	2.2	2.0	2.0
Days > NAAQS (20 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	1.73	1.74	1.64
Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	69.2	61.9	67
Days > NAAQS (100 ppb)	0	0	0
Sulfur Dioxide:			
Maximum 24-Hour Concentration (ppm)	0.005	N/D	N/D
Days > NAAQS (0.25 ppm)	0	0	0
Inhalable Particulates (PM_{10}):			
Maximum 24-Hour Concentration (ug/m^3)	63.0	128.4	68.1
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	2	2	1
Annual Arithmetic Mean (AAM) (ug/m^3)	32.4	31.2	32.0
Annual > NAAQS (50 ug/m^3)	no	no	no
Annual > CAAQS (20 ug/m^3)	**yes**	**yes**	**yes**
Ultra-Fine Particulates ($PM_{2.5}$):			
Maximum 24-Hour Concentration (pg/m^3)	39.3	65.0	34.8
Days > NAAQS (35 ug/m^3)	**2**	**2**	**2**
Annual Arithmetic Mean (AAM) (ug/m^3)	11.1	--	11.7
Annual > NAAQS (15 ug/m^3)	no	no	no
Annual > CAAQS (12 ug/m^3)	**no**	**no**	**no**

Source: http://www.arb.ca.gov/adam/

Notes:

1. CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb=parts per billion; N/D = no data available

Particulate Matter

During the 2010 to 2012 monitoring period, the State 24-hour concentration standard for PM_{10} has been exceeded a maximum of 2 days each year at the San Bernardino station and the State annual concentration standard was exceeded each year during this time period. Over the same time period the Federal 24-hour and annual standards for PM_{10} have not been exceeded at the San Bernardino station.

The Federal 24 hour standard for $PM_{2.5}$ was exceeded a maximum of 2 days during the 2010 to 2012 monitoring period at the San Bernardino station. The annual average $PM_{2.5}$ concentrations exceeded the State standard each year during the 2010 to 2012 monitoring period and did not exceed the Federal standard during the same time period.

4.3.3 Environmental Impacts and Mitigation Measures

4.3.3.1 Thresholds of Significance

According to the State CEQA Guidelines' Appendix G and the City of Colton Guidelines for implementing CEQA, 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 SCAQMD are also considered. The following criteria were used in the analysis of Air Quality impacts:

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?

Air Quality Standards

Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as

ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 4.3-4, *SCAQMD Air Quality Significance Thresholds*.

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO_2, CO, PM_{10}, and $PM_{2.5}$.

The significance thresholds for the local emissions of NO_2 and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 4.3-3, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significant Thresholds. Since PM_{10} and $PM_{2.5}$ currently exceed the most restrictive ambient air quality standards in the Basin, their background concentrations are not factored into the threshold. Table 4.6-4 shows the Localized Significant Thresholds for NO_2, CO, and PM_{10} and $PM_{2.5}$ as well as the background concentrations and resultant significance concentrations.

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

Table 4.3-4 SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	**Construction (pounds/day)**	**Operation (pounds/day)**
NOx	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants, Odor and GHG Thresholds		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2e for industrial facilities	

Local Air Quality Thresholds			
Pollutant	**SCAQMD LSTs**	**Background Level**	**Significance Threshold**
NO_2 -1-hour average	0.18 ppm (338 µg/m^3)	121 µg/m^3	217 µg/m^3
PM_{10} -24-hour average Construction Operations	 10.4 µg/m^3 2.5 ug/m^3	 -- --	 10.4 µg/m^3 2.5 ug/m^3
$PM_{2.5}$ -24-hour average Construction Operations	 10.4 µg/m^3 2.5 µg/m^3	 -- --	 10.4 µg/m^3 2.5 ug/m^3
SO_2 1-hour average 24-hour average	 0.25 ppm 0.04 ppm	 9 µg/m^3	 0.25 ppm 0.04 ppm
CO 1-hour average 8-hour average	 20 ppm (23,000 µg/m^3) 9 ppm (10,000 µg/m^3)	 2300 µg/m^3 1767 µg/m^3	 20700 µg/m^3 8233 µg/m^3
Lead 30-day average Rolling 3-month average Quarterly average	 1.5 µg/m^3 0.15 µg/m^3 1.5 µg/m^3	 -- -- --	 1.5 µg/m^3 0.15 µg/m^3 1.5 µg/m^3

Source: http://www.aqmd.gov/ceqa/handbook/signthres.pdf

In order to determine if the proposed project may have a significant impact related to hazardous air pollutants (HAP), the Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for *CEQA Air Quality Analysis, (Diesel Analysis),* prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create hazardous air pollutants through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the hazardous air pollutants and the toxicity of the hazardous air pollutants should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

> *"A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."*

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

4.3.3.2 Impact Analysis

a) Consistency with the Air Quality Management Plan

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, and thus be inconsistent (CEQA Guidelines Section 15125). Regional plans that apply to the proposed project include the AQMP. In this regard, this section discusses any inconsistencies between the proposed project and the AQMP.

The purpose of the consistency discussion is to identify any issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the region's ability to comply with federal and State air quality standards. If it is determined that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD's CEQA Handbook states "New or amended general plan elements (including land use zoning and density amendments), specific plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the AQMP is usually not required. A proposed project would be considered consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The Handbook identifies two key criteria for consistency:

(1) Whether the project will 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 (except as provided for CO in Section 9.4 of the Handbook for relocating CO hot spots).
(2) Whether the project will exceed the assumptions in the AQMP.

Criterion 1 - Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis, even with implementation of Mitigation Measures AQ-1, AQ-2 and AQ-3, identified for short-term construction impacts (See Issue "b" below) would still result in significant impacts (VOC, NO_x and CO) from building construction based on the SCAQMD regional thresholds of significance. The Air Quality Assessment also found that even with implementation of Mitigation Measures AQ-4 through AQ-14, long-term operations impacts would still result in significant impacts based on the SCAQMD local, regional, and toxic air contaminant thresholds of significance.

Therefore, the proposed project will contribute to the exceedance of any air pollutant concentration standards and is found to be inconsistent with the AQMP for the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The *Regional Comprehensive Plan and Guide* (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Colton General Plan defines the assumptions that are represented in the AQMP.

Under the West Valley Specific Plan (WVSP) amendment, the CHCCSP project area may be

developed with a variety of land uses including retail, office, business park, residential, and open space for recreation uses. Habitat conservation is also a component of the CHCCSP. Therefore, the proposed project would not result in an inconsistency with the current land use designation. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

However, based on the above, the project fails to meet Criterion 1; therefore, the proposed project will result in an inconsistency with the SCAQMD AQMP and a significant and unavoidable impact will occur.

The Air Quality Assessment of consistency with the AQMP found that even with implementation of Mitigation Measures, long-term operations impacts would still contribute to an increase in the frequency or severity of violations and therefore, would result in a significant impact. Mitigation measures are provided at the end of the Air Quality assessment below.

b and d) Violate an Air Quality Standard or Expose Sensitive Receptors to Substantial Pollutant Concentrations

Short Term Construction

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. As this project is a Specific Plan amendment, the exact timing is not currently known; therefore, to estimate the worst-case emissions, it was assumed that the entire developable area of the CHCCSP project area would be graded over a period of 261 working days. As stated previously, the proposed project is anticipated to start construction in January of 2015 and would be fully buildout in 2020.

Construction-Related Regional Impacts

The construction-related regional air quality impacts have been analyzed for criteria pollutants. Typical emission rates from construction activities were obtained from CalEEMod Version 2013.2.2 which uses the EMFAC2011 computer program to calculate the emission rates specific for the western portion of San Bernardino County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2011 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions during each phase was calculated and presented below. These

emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions. The construction emissions printouts from CalEEMod are provided in Appendix B of the *Air Quality Assessment* (EIR Appendix B).

Future projects developed in the CHCCSP project area will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as:

- Application of water or chemical stabilizers to disturbed soils;
- Managing haul road dust by application of water;
- Covering haul vehicles;
- Restricting vehicle speeds on unpaved roads to 15 mph;
- Sweeping loose dirt from paved site access roadways;
- Cessation of construction activity when winds exceed 25 mph; and
- Establishing a permanent, stabilizing ground cover on finished sites.

In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a *Fugitive Dust Control Plan* or a *Large Operation Notification Form* to SCAQMD. Based on the size of a number of the parcels in the CHCCSP project area and an assumption that parcels may be consolidated into larger development areas, *Fugitive Dust Control Plans*or *Large Operation Notifications* would be required for these projects.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Mitigation Measure AQ-1 was included to ensure compliance with Rule 403. Mitigation measures are compiled at the end of the Air Quality section below.

The phases of the construction activities which have been analyzed below are:

1) Grading;
2) Building construction;
3) Paving; and
4) Application of architectural coatings.

For details on construction modeling, please see Appendix B of the *Air Quality Assessment* (EIR Appendix B).

The application of architectural coatings would occur after the completion of the construction

phase for each project. Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after July 1, 2014 will be limited to an average of 50 grams per liter or less and the CalEEMod model default VOC emissions have been adjusted accordingly.

The construction-related criteria pollutant emissions for each phase are shown below in Table 4.3-5, *Unmitigated Construction-Related Regional Criteria Pollutant Emissions*. Table 4.3-5 shows that if the building construction phase occurred at the same time as painting and paving, that criteria pollutants would exceed the regional emissions thresholds for VOC, NO_x and CO.

Table 4.3-6, *Construction-Related Regional Criteria Pollutant Emissions With Mitigation*, includes mitigation measures that reduce architectural coatings to 5g/L or less and requires all construction equipment to be Tier 4 final and have Level 3 diesel particulate filters and oxidation catalysts that have a 25 percent emissions reduction. Even though these strict mitigation measures are incorporated, the emissions from construction of the project exceed SCAQMD regional thresholds for VOC, NO_x and CO. The impact is considered to be significant and unavoidable for these criteria pollutants.

Local Air Quality Impacts from Construction

Construction-related air emissions may also have the potential to exceed the State and federal air quality standards in the project area. The proposed CHCCSP has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

SCAQMD has published a *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*. CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its mitigation measures the following parameters:

- The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
- The maximum number of acres disturbed on the peak day.
- Any emission control devices added onto off-road equipment.
- Specific dust suppression techniques used on the day of construction activity with maximum emissions.

Table 4.3-5 Unmitigated Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Grading						
On-Site[1]	6.78	79.05	50.84	0.06	2.96	1.37
Off-Site[2]	0.10	0.12	1.53	0.00	0.23	0.06
Total	**6.87**	**79.16**	**52.37**	**0.06**	**3.18**	**1.43**
Building Construction						
On-Site[1]	3.41	28.51	18.51	0.03	1.97	1.85
Off-Site[2]	40.47	216.20	586.97	1.19	74.60	22.39
Total	**43.88**	**244.70**	**605.48**	**1.22**	**76.57**	**24.24**
Paving						
On-Site[1]	2.50	22.39	14.82	0.02	1.26	1.16
Off-Site[2]	0.06	0.08	1.03	0.00	0.17	0.05
Total	**2.56**	**22.46**	**15.85**	**0.02**	**1.43**	**1.21**
Architectural Coating						
On-Site[1]	68.36	2.37	1.88	0.00	0.20	0.20
Off-Site[2]	4.42	5.37	70.74	0.14	11.56	3.12
Total	**72.78**	**7.74**	**72.63**	**0.14**	**11.76**	**3.32**
Total of overlapping phases[3]	**119**	**275**	**694**	**1**	**90**	**29**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	yes	yes	yes	no	no	no

Source: CalEEMod Version 2013.2.2

Notes:

1. On-site emissions from equipment operated on-site that is not operated on public roads.
2. Off-site emissions from equipment operated on public roads.
3. Construction, architectural coatings and paving phases may overlap.

The CalEEMod output sheets included in Appendix B of the Air Quality Assessment, (Appendix B of the EIR) show the equipment used for this analysis. As shown in Table 4.3-7, *Maximum Number of Acres Disturbed Per Day*, the maximum number of acres disturbed in a day would be five acres.

Table 4.3-6 Construction-Related Regional Criteria Pollutant Emissions with Mitigation

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Grading						
On-Site[1]	0.76	2.46	34.78	0.06	2.96	1.37
Off-Site[2]	0.10	0.12	1.53	0.00	0.23	0.06
Total	**0.85**	**2.58**	**36.31**	**0.06**	**3.18**	**1.43**
Building Construction						
On-Site[1]	0.33	1.67	17.41	0.03	0.01	0.01
Off-Site[2]	40.47	216.20	586.97	1.19	74.60	22.39
Total	**40.80**	**217.87**	**604.38**	**1.22**	**74.61**	**22.40**
Paving						
On-Site[1]	0.68	0.89	16.93	0.02	0.01	0.01
Off-Site[2]	0.06	0.08	1.03	0.00	0.17	0.05
Total	**0.74**	**0.97**	**17.96**	**0.02**	**0.17**	**0.05**
Architectural Coating						
On-Site[1]	68.02	0.10	1.83	0.00	0.00	0.00
Off-Site[2]	4.42	5.37	70.74	0.14	11.56	3.12
Total	**72.44**	**5.47**	**72.58**	**0.14**	**11.57**	**3.12**
Total of overlapping phases[3]	**114**	**224**	**695**	**1**	**86**	**26**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	yes	yes	yes	no	no	no

Source: CalEEMod Version 2013.2.2

Notes:

1. On-site emissions from equipment operated on-site that is not operated on public roads.
2. Off-site emissions from equipment operated on public roads.
3. Construction, architectural coatings and paving phases may overlap.

Table 4.3-7, Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Site Grading	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Excavators	2	0.5	1
	Scrapers	2	1	2
	Tractors/Loaders/Backhoes	2	0.5	1
			Total Per Phase-	**5**

Source: SCAQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds

The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in *Localized Significance Threshold Methodology*, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NO_x, PM_{10}, and $PM_{2.5}$ from the proposed project could result in a significant impact to the local air quality. The localized assessment methodology limits the emissions in the analysis to those generated from on-site activities. The emission thresholds were calculated based on the Central San Bernardino Valley source receptor area, a disturbance of five acres per day (which is the maximum area anticipated to be disturbed each day during construction). However, in order to assure that the 5 acre limitation is adhered to during grading operations, Mitigation Measure 1 is provided limiting the daily disturbed area during the grading phases to 5 acres per day. Mitigation measures are compiled at the end if the Air Quality Assessment below.

The nearest sensitive receptor to the project site are the single-family detached residential dwelling units located approximately 82 feet (25 meters) north of the project site. Within the project area there are sensitive receptors in Planning Area 24: (1) the small residential neighborhood at the corner of C Street and Hermosa Avenue, and the Slover Mountain High School. Table 4.3-8, *Unmitigated Local Construction Emissions at the Nearest Receptor,* shows the on-site emissions from the CalEEMod model for the different construction phases and the calculated emissions thresholds.

The data provided in Table 4.3-8 shows that none of the analyzed criteria pollutants would exceed the calculated local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Construction-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk."

"Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment and the relatively short-term construction schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

Table 4.3-8 Unmitigated Local Construction Emissions at the Nearest Receptor

Phase	On-Site Pollutant Emissions (pounds/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Grading	79.05	50.84	2.96	1.37
Building Construction	28.51	18.51	1.97	1.85
Paving	22.39	14.82	1.26	1.16
Architectural Coating	2.37	1.88	0.20	0.20
SCAQMD Threshold for 25 meters (82 feet)[1]	**270**	**1,746**	**14**	**8**
Exceeds Threshold?	no	no	no	no

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for five acres in Central San Bernardino Valley, Revised October 21, 2009.

Notes:

1. The estimated distance from the project site to the nearest existing home located north of the project site is 82 feet.

Construction-Related Impacts to DSF

Construction-related emissions are generally short-term in duration, but may still cause adverse air quality impacts on the DSF particularly related to PM_{10} and $PM_{2.5}$ associated with fugitive dust from construction sites. Construction-related emissions may adversely affect DSF within conservation areas which include planning areas 3, 6, 11, and 18, as well as the conservation area associated with the cemetery (adjacent to Planning Area 24), and the Hospital and Pepper Avenue Conservation Site (adjacent to Planning Area 23), if measures to avoid or minimize emissions are not implemented because the fugitive dust that could blow off the construction sites would not be just soil particulates but other construction-related pollutants mixed with the particulates. Table 4.3-5 lists construction-related pollutants.

Table 4.3-6 shows construction-related regional criteria pollutant emissions with implementation of mitigation measures. Although this table shows the PM_{10} and $PM_{2.5}$ emissions can be mitigated to less than significant levels, emissions of other criteria pollutants remain significant. However, because fugitive dust can be controlled through implementation of requirements of SCAQMD Rule 403 which includes mandatory watering of a construction site, and other Best Management Practices to control fugitive dust, such application of dust palliatives, construction impacts to DSF habitat would be less than significant. Table 4.3-6 shows that by controlling fugitive dust through BACTs set forth in Rule 403, emissions of PM_{10} and $PM_{2.5}$ would be well below SCAQMD's thresholds of 150 pounds and 55 pounds, respectively.

Long Term Operation

The on-going operation of future projects in the CHCCSP project area would result in a long-term increase in air quality emissions. This increase would be mainly due to emissions from the vehicle trips generated by these projects and through operational emissions from the on-going operations of future land uses.

Operations-Related Regional Air Quality Impacts

Operations-Related Criteria Pollutant

The operations-related criteria air quality impacts that would be created by future uses in the CHCCSP project area were analyzed using the CalEEMod model. The project area is located in the City of Colton, which has its own electric utility; however, the CO_2 intensity factor (lb/MWhr) is not listed in CalEEMod; therefore, to be conservative, the Statewide Average was used. The use of the Statewide Average may have over-estimated the project's energy use as the City of Colton has electric rates approximately 25 percent lower than Southern California Edison.

The CHCCSP project was analyzed in the CalEEMod model based on 275 medium density residential units located on 42.1 acres, 223.3 acres of commercial/business uses, 52.91 acres of open space/park and 54.89 acres of streets. The operating emissions were based on the year 2020, which was used as the opening year for the proposed CHCCSP. The operations daily emissions printouts from the CalEEMod model are provided in Appendix B of the *Air Quality Assessment* (EIR Appendix B). The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, are analyzed here.

Mobile sources include emissions from the additional vehicle miles generated from the future uses in the CHCCSP project area. The vehicle trips associated with the CHCCSP were analyzed by inputting the project-generated vehicular trips from the *Colton's Hub City Center Specific Plan Traffic Impact Analysis*, (EIR Appendix I) into the CalEEMod Model. The project has varying trip generation rates for similar land uses located in different planning areas. For example, the trip generation rate for the shopping center in Planning Area 9 has a trip generation rate of 77.69 per thousand square feet (TSF), whereas the shopping center in Planning Area 16 has a trip generation rate of 33.68 per TSF. This is because the retail trip generation rate is higher than a mixed-use trip generation rate. Office uses within the planning areas also varied in trip generation rate. CalEEMod does not provide the ability to assign different trip generation to the same types of land use and rather lumps all the same uses together; therefore, the operational emissions for these similar land uses within different planning areas with different trip generation rates had to be assessed using discrete CalEEMod runs. The project's emissions were broken down into five parts, then the operational emissions from each part were added

together to yield the results shown in Table 4.3-9, *Unmitigated Operational Criteria Pollutant Regional Air Emissions*.

The CHCCSP includes a number of development regulations regarding the business park uses. Maximum building floor areas have been defined to avoid "big box" warehousing and distribution uses in order to ensure that the scale of the new development will be compatible with other planned uses and to protect the health, safety and general welfare of the community. Therefore, there would be minimal potential for heavy duty vehicle idling on-site.

The worst-case summer or winter VOC, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions created from the term operations in the CHCCSP project area were calculated and are summarized in Table 4.3-9. The data provided in Table 4.3-9 shows that for the on-going operations activities for the proposed project, all but SO_2 emissions would exceed the SCAQMD regional thresholds of significance. Therefore, operation of future land uses in the CHCCSP project area would create a significant regional impact from VOC, NO_x, CO, PM_{10} and $PM_{2.5}$ emissions.

Table 4.3-9 Unmitigated Operational Criteria Pollutant Regional Air Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area Sources[1]	442.50	2.10	161.60	0.22	21.13	21.13
Energy Usage[2]	0.79	6.99	4.90	0.04	0.54	0.54
Mobile Sources[3]	2,174.72	6,595.61	25,051.60	74.47	4,981.65	1,398.40
Total Emissions	**2,618**	**6,605**	**25,218**	**75**	**5,003**	**1,420**
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	yes	yes	yes	no	yes	yes

Source: CalEEMod Version 2013.2.2

Notes:

1. Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
2. Energy usage consists of emissions from on-site natural gas usage.
3. Mobile sources consist of emissions from vehicles and road dust.

Within the project area there are sensitive receptors in Planning Area 24: (1) the small residential neighborhood at the corner of C Street and Hermosa Avenue, and the Slover Mountain High School.

The California Air Resources Board land use handbook addresses this issue by recommending buffer areas near distribution centers. The handbook recommends the following:

- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that

accommodates more than 100 trucks per day, more than 40 trucks with operating Transport Refrigeration Unit (TRUs) per day, or where TRU unit operations exceed 300 hours per week).

- Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

Mitigation Measures AQ-4 through AQ-14 are provided to reduce the operational emissions. These measures are provided at the end of the Air Quality Assessment below. The mitigated operational regional criteria pollutant emissions are shown in Table 4.3-10, M*itigated Operational Criteria Pollutant Regional Air Emissions*. Table 4.3-10 shows that with incorporation of the aforementioned mitigation measures, operational regional criteria pollutant emissions would still exceed regional operational thresholds for VOC, NO_x, CO, PM_{10} and $PM_{2.5}$. The majority of emissions are from mobile sources using the site. The impact is considered to be significant and unavoidable.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The CHCCSP land use plan was analyzed for the potential local CO emission impacts from the vehicular trips generated by future land uses and from the potential local air quality impacts from on-site operations.

Local CO Emission Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts were assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented previously.

To determine if the proposed project could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” typically occur at high traffic volume intersections with a Level of Service E or worse. The TIA prepared for the CHCCSP (EIR Appendix I) found that with the proposed road improvements, no analyzed intersection would operate at a Level of Service E or worse. Therefore no CO “hot spot” modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Table 4.3-10 Mitigated Operational Criteria Pollutant Regional Air Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources[1]	298.52	0.27	23.40	0.00	0.46	0.46
Energy Usage[2]	0.57	5.04	3.50	0.03	0.39	0.40
Mobile Sources[3]	2,102.96	4,249.91	17,053.14	44.06	2,890.16	813.54
Total Emissions	**2,402**	**4,255**	**17,080**	**44**	**2,891**	**814**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**yes**	**yes**	**yes**	no	**yes**	**yes**

Source: CalEEMod Version 2013.2.2

Notes:

1. Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
2. Energy usage consists of emissions from on-site natural gas usage
3. Mobile sources consist of emissions from vehicles and road dust

Local Air Quality Impacts from On-Site Operations

The CHCCSP project includes the development of residential, commercial, business park, and open space/park uses. The long-term emissions, as discussed previously, are primarily in the form of mobile source emissions and consumer products. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project if the project includes stationary sources, such as power plants, or attracts mobile sources that may spend long periods queuing and idling at the site; such as warehouse/transfer facilities. The proposed project does not include such uses and, as stated previously, the CHCCSP has development regulations in place to specifically exclude "big box" warehousing and distribution uses in order to ensure that the scale of the new development will be compatible with other planned uses and to protect the health, safety and general welfare of the community. Therefore, due to the lack of stationary source emissions, no long-term LST analysis is warranted.

Diesel Emissions Health Risk Assessment

According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology.

According to the SCAQMD's MATES-III study, under existing conditions the project area has an estimated cancer risk of between 848 in one million on the northern portion of the project area and 1,051 in one million cancer risk on the southern portion of the project area adjacent to

Valley Blvd, from toxic air contaminants (TACs). In comparison the average cancer risk for San Bernardino County is 631 in one million. This is because the project area is in proximity to two major sources of diesel particulate matter (DPM): 1) the I-10 Freeway representing the southerly boundary of the CHCCSP project area; and 2) the Union Pacific Colton Rail yard, located south of the project area, on the south side of the I-10 freeway.

A project-specific health risk assessment for the project area was performed by Mestre Greve Associates, October 15, 2008 (as part of the original WVSPA EIR) and is the basis for the discussion of project-associated health risks. Note: the HRA performed in 2008 for the WVSPA was reviewed by Kunzman Associates and found to still be appropriate for use in evaluating the CHCCSP. Within the study it states that:

> *"CARB has identified rail yards as a considerable source of DPM emissions and has completed health risk assessments (HRA) for many of the rail yards in the state, including the Union Pacific Colton Rail yard. Potential health risks at the uses proposed by the project are reported (in the HRA) based on the results from CARB's rail yard study as well as site specific modeling to estimate the risk from the I-10 Freeway."*

The future projects that will likely be developed in the project area under the CHCCSP are not expected to be a considerable source of DPM as non-residential uses would consist of primarily business parks, professional office space, and commercial retail centers, with no industrial or distribution facility uses that would be expected to attract large numbers of diesel trucks that would idle for long periods. The project also does not include other stationary sources such as a new power plant. As stated previously, the CHCCSP development regulations are designed to avoid "big box" warehousing and distribution uses in order to ensure that the scale of the new development will be compatible with other planned uses and to protect the health, safety and general welfare of the community. The type of trucks associated with business parks would be large two-axle trucks which are predominantly gasoline or natural gas fueled; there should not be a considerable number of heavy truck trips associated with the proposed business park uses. Therefore future projects in the CHCCSP project area would not be considered to be a point source for DPM emissions.

The project area is, however, located adjacent to the I-10 Freeway and the UPRR Colton Rail yard. The Mestre Greve Associates study analyzed the impacts to both commercial and residential receptors. The land use plan has been modified since the 2008 analysis, and commercial uses are now proposed at the locations that were previously designated for residential development, in the eastern end of the project area adjacent to Hermosa Avenue in close proximity to the UPRR rail line. Health risks from diesel particulate matter are twofold: 1) diesel particulate matter is a carcinogen according to the State of California; and 2) long-term

chronic exposure to diesel particulate matter can cause non-cancer health effects to the respiratory system. Each of these health risks is discussed here.

Cancer Risks from the I-10 Freeway

Exhibit 4.3-1, *DPM Receptor Locations*, shows Receptors 1, 2 and 3 in Planning Area 10 will still be located at business park-type commercial uses, Receptor 4 is located at a retail/mixed use in Planning Area 9 and Receptor 5 is the closest residential receptor in Planning Area 5. The maximum cancer risk commercial uses would be exposed to from the I-10 Freeway, would be at the location of Receptor 1. There, the risk is 59.6 in one million at this location. The maximum cancer risk the closest residential use would be exposed to (Receptor 5), from the I-10 Freeway, would be 29.9 in one million. All receptors are projected to be exposed to cancer risks in excess of the 10 in a million SCAQMD threshold. The maximum total cancer risks of 71 and 35.6 per million, respectively, are much lower than the risks for San Bernardino County, as detailed above, and the 1,200 in a million average basin wide risk from the MATES-III study. This assumes DPM cancer risk is 84% of total risk of toxic air contaminants.

Furthermore, the residential uses would be located at least 1,473 feet from the I-10 Freeway. The California Air Resources Board's 2005 *Air Quality and Land Use Handbook: A Community Health Perspective*, recommends to "avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day." The closest sensitive receptor is over 1,400 feet away. Therefore, the project complies with this recommendation.

Non-Cancer Risk from the I-10 Freeway

Based on the peak 24-hour DPM concentration and the *Chronic Inhalation Reference Exposure Level* published by the OEHHA of 5 $\mu g/m^3$, the Hazard Index for each receptor due to the I-10 Freeway DPM emissions was calculated by Mestre Greve Associates. The highest Hazard Index is 0.7444 at Receptor 1 (a commercial receptor). This is lower than the non-cancer risk significance threshold of 1. The non-cancer risk at the project site due to DPM from the I-10 Freeway is less than the significance threshold.

Cancer Risk from UPRR Colton Rail Yard

According to the Mestre Greve Associates study, and shown in Exhibit 4.3-2, *Near Source Cancer Risk From the UPRR Rail Yard*, the cancer risk at the closest sensitive receptor would be between 100 and 50 in one million. The cancer risk at the closest commercial receptor would be 250 in one million; which translates to 63 in one million for an employee exposure. The exhibit shows cancer risk contours based on calculations for sensitive receptors (based on the OEHHA/ARB Approved Health Risk Assessment Health Values). Sensitive receptors have a daily

breathing rate of 302 and exposure value factor of 0.96. A commercial receptor has less exposure than a residential receptor (40 years and 8 hours a day) as they are not at that location 24 hours a day (nor will they be at location for 70 years). The commercial receptors daily breathing rate is 149 and the exposure value factor is 0.38. So the commercial receptor is exposed to the same DPM concentration but for much shorter period of time so the cancer risk is far reduced.

Non-Cancer Risk from UPRR Colton Rail Yard

The CARB study presents the estimated Hazard Index from emissions associated with the railyard operations and the results are shown in Exhibit 4.3-3, *Non-Cancer Chronic Risk From the UPRR Rail Yard*. The greatest Hazard Index of approximately 0.25 is experienced at the southwest corner of the project area which is proposed to be a commercial use. The greatest hazard index for the residential areas proposed by the project is approximately 0.05. Again these are lower than the non-cancer risk significance threshold of 1.

The combined cancer risk from exposure to both UPRR Rail yard and the I-10 Freeway at the closest sensitive receptor would be 131 in one million (36 in one million from the I-10 freeway plus 95 in one million from the UPRR Rail yard). While cancer risk in the project area due to TAC's may be higher than other areas in San Bernardino County that are located further from the railroad and I-10 Freeway, the combined risk on the site, will be less than the majority of San Bernardino County and much less than the average in the South Coast Air Basin. For example, the MATES-III study shows that risks in south-central Los Angeles area and the Los Angeles/Long Beach Harbor area are two to three times greater than the majority of San Bernardino County. Even with future emission reductions, this ratio would not be expected to change substantially as these reductions would generally affect all areas equally. For these reasons it is concluded that the project site is not significantly impacted by Toxic Air Contaminants.

DSF Habitat Conservation Areas

Mitigated project operational emissions are presented in Table 4.3.10 above. The primary source of regional emissions generated by the Covered Activities will be from motor vehicles. Other emissions from future development projects, referred to as Covered Activities in the HCP, will be generated from the combustion of natural gas for water and space heating, the use of landscaping equipment, and architectural coatings during maintenance. Table 4.3-10 shows that the total project emissions are above the SCAQMD Thresholds for ROG, NO_x, CO, PM_{10} and $PM_{2.5}$. The South Coast Air Basin is in attainment for CO, NO_2, and SO_2 but not for PM_{10}, $PM_{2.5}$ or ozone (O_3) of which ROGs are constituents.

There are a number of measures that avoid or minimize Air Quality impacts associated with Covered Activities including Best Available Control Measures (BACMs) required by SCAQMD, particularly for the control of particulate matter as set forth in Rule 403. The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. However, even with implementation of BACMs, emissions are expected to continue to exceed thresholds due mainly to the fact that the emissions exceeding the thresholds are all related to motor vehicles.

c) Cumulative Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

The project area is out of attainment for both ozone and PM_{10} particulate matter. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. In accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact.

However, even with mitigation, the project's short-term construction and long-term operational emissions exceed criteria pollutant thresholds. Development of new projects in the CHCCSP project area would create a significant and unavoidable cumulative impact due to the increase in emissions of VOC, NO_x and CO, over the SCAQMD thresholds.

e) Objectionable Odors

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement and diesel exhaust emissions. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor

emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from diesel truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

4.3.3.3 Mitigation Measures

Construction Measures

AQ-1 The project applicant shall require that the grading contractors comply with SCAQMD Rule 403 minimum requirements for controlling fugitive dust and limit the grading area to no more than 5 acres per day. In addition the DSF HCP provides clear direction on how BACMs should be implemented as follows:

Each Covered Project Proponent shall ensure that active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately. This would include such measures as:

- sweeping local streets regularly during construction;
- applying dust palliatives to areas that are not under active construction;
- pre-water larger sites prior to initiation of grading, grade sites in phases timed to coincide with construction so that no sites are left graded and exposed to the elements;
- washing construction vehicles prior to leaving a construction site;
- Installing wind fencing around construction sites with signage that identifies who to call if dust is seen blowing from the site; and
- Any other measures that, at the time of approval of individual development projects, must be implemented on a project by project basis.

AQ-2 The project applicant shall require that architectural coating products are used that do not exceed more than 5g/L VOC content.

AQ-3 The project applicant shall require that all diesel construction equipment used on -site be certified Tier 4 Final, with level 3 diesel particulate filters and oxidative catalysts that are at least 25 percent efficient.

Operational Measures

AQ- 4 All new development projects, or sites where significant redevelopment will occur shall be required to provide sidewalks along and within the property boundaries.

AQ-5 All new development projects, or sites where significant redevelopment will occur shall require that any future tenants institute a ride sharing program and employee vanpool/shuttle that is open to all employees.

AQ-6 All new residential project proponents shall ensure that the local school district serving the project area will offer a school bus program for children of future residents.

AQ-7 All new development projects, or sites where significant redevelopment (greater than 50 percent increase in land use, or building coverage) will occur shall require that any future commercial tenants restrict delivery truck idling on the project site.

AQ-8 All future tenants must institute a recycling program that reduces waste to landfills by a minimum of 50 percent, or as stipulated by CalRecycle. The recycling program must include designated recycling bins at each proposed trash storage area and require all green waste to be stored in containers separate from other types of municipal solid waste.

AQ-9 All new development projects, or sites where significant redevelopment will occur shall exceed 2013 Title 24, Part 6 Standards by 3 percent, and meet Green Building Code Standards.

AQ-10 All new development projects, or sites where significant redevelopment will occur shall be equipped with faucets, toilets and showers installed in the proposed structures utilize low-flow fixtures.

AQ-11 Water-efficient irrigation systems shall be installed at all new development projects, or sites where significant redevelopment will occur that conforms to the requirements of Colton Municipal Code.

AQ-12 All new development projects, or sites where significant redevelopment will occur shall include ENERGY STAR-compliant appliances wherever appliances are needed in buildings on-site and that natural gas only hearths be installed when needed.

AQ-13 All new development projects, or sites where significant redevelopment will occur shall be developed with high-efficiency lighting on-site that is at least 10 percent more efficient than standard lighting.

AQ-14 All new development projects, or sites where significant redevelopment will occur shall require that architectural coating products used for maintenance/re-application do not exceed more than 5g/L VOC content.

AQ-15 All new development projects, or sites where significant redevelopment will occur adjacent to or near conservation sites established in the HCP, shall include measures to reduce impacts associated with the operation of any development projects must be developed on a project by project basis depending on the type of land use being proposed and a site's proximity to the conservation areas identified in the HCP. These may include BMPs such as routine parking lot and street sweeping to reduce particulate matter; encouraging employees to use alternative modes of transportation and carpooling, and the development of workforce housing near employment generators such as the ARMC.

In addition to mitigation measures identified in this section, Section 4.4, Biological Resources includes measures that are specific to DSF habitat as follows.

BIO-4 Control of Toxic Substances - During and after the construction of any development project, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be restricted so as to avoid impacts to DSF and their habitat. This restriction shall appear as a note on all grading and construction plans to be implemented by and be the responsibility of individual project proponents.

BIO-7 Storage and Staging Areas - No temporary storage or stockpiling of construction materials shall be allowed within conserved areas/habitat, and all staging areas for equipment and materials shall be located a minimum of 50 feet away from existing or proposed conserved habitat. Staging areas and construction sites shall be kept free of trash, refuse, and other waste; no waste dirt, rubble or trash shall be deposited within conserved habitat.

BIO-8 Dust Control - Active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats (planning areas 3, 6, 11 and 18, as well as habitat in the cemetery site adjacent to Planning Area 24, and an additional 8-acre habitat conservation site on Valley Blvd adjacent to Planning Area 23) especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately. This measure

shall be implemented in conjunction with Mitigation Measure AQ-1.

Finally there's one mitigation measure related to hazards that is included here:

HAZ - 11 Adherence to mitigation for air quality to reduce construction related emissions during development of projects in Planning Area 24 would reduce impacts to less than significant levels when construction activities can be limited either by limiting duration of activities or number of pieces of equipment in simultaneous use such that emissions thresholds are not exceeded. Prior to commencement of grading activities in Planning Area 24, the applicant shall conduct a project specific air quality analysis to determine how to achieve this reduction in emissions.

4.3.3.4 Level of Significance After Mitigation

Development of new projects in the CHCCSP project area would result in significant unavoidable impacts for short-term construction, long-term operation and cumulative. Development projects in the CHCCSP project area would not contribute significant Toxic Air Contaminants.



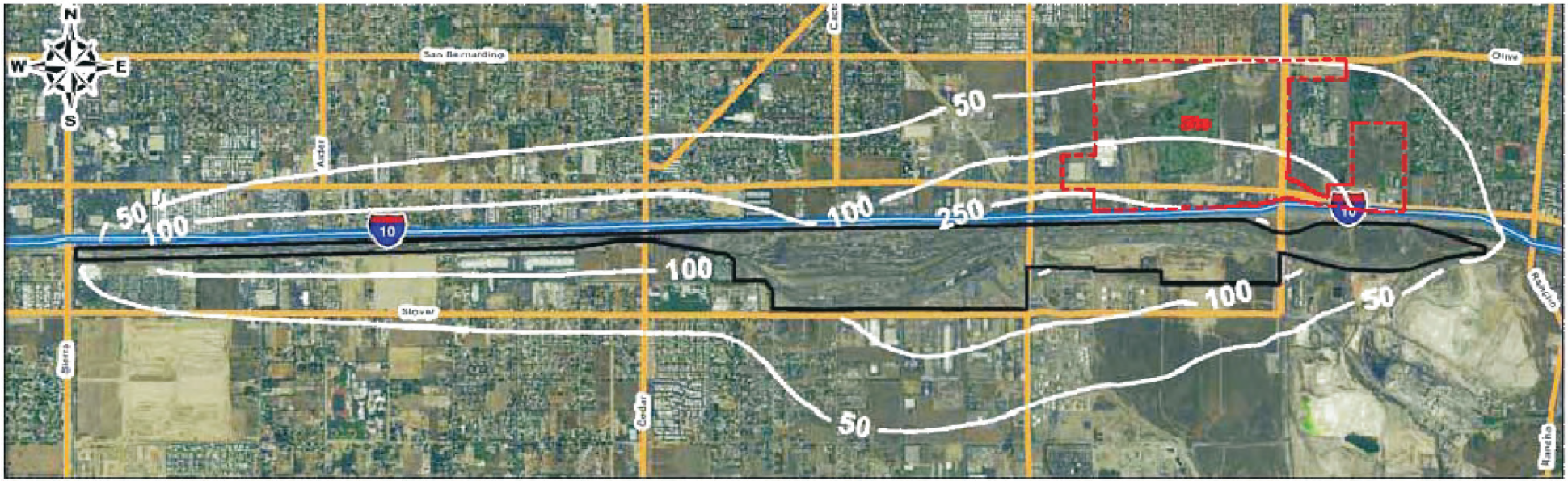
Source: Kunzman Associates, 2013

Not to Scale

The Altum Group

DPM Receptor Locations
CHCCSP Environmental Impact Report

Exhibit 4.3-1



Source: Kunzman Associates, 2013

Not to Scale

The Altum Group

Near Source Cancer Risk from UPRR
CHCCSP Environmental Impact Report

Exhibit
4.3-2



Source: Kunzman Associates, 2013

Not to Scale

The Altum Group

Non-Cancer Risk from UPRR
CHCCSP Environmental Impact Report

Exhibit
4.3-3

4.4.1 Introduction

This section evaluates the potential impacts to biological resources that could occur as a result of implementing the Colton's Hub City Centre Specific Plan (CHCCSP). Information has been incorporated from the *Draft Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(A)(1)(B) of the Endangered Species Act for the Federally Endangered Delhi Sands Flower-Loving Fly Projects within the City of Colton, County of San Bernardino, California,* prepared by RBF Consultants, December 20*14; and the Environmental Assessment For Issuance of an Endangered Species Section 10 (A)(1)(B) Permit for the Incidental Take of the Federally Endangered Delhi Sands Flower-Loving Fly (Rhaphiomidas terminatus abdominalis) for Vegetation Clearance and Site Preparation for Future Projects Within the West Valley Specific Plan Amendment Project Area, City Of Colton San Bernardino County, California*, prepared by The Altum Group, January 2014. The Draft Habitat Conservation Plan (HCP) is included in Appendix D.

The DSF HCP area encompasses approximately 416.3 acres including an additional 5.8 acres along Slover Avenue west of Pepper Avenue on the south side of the I-10 Freeway. The boundary of the CHCCSP project area and the West Valley HCP Plan area are similar with the exception of the following areas:

- The CHCCSP project area boundary extends south of Valley Boulevard to the I-10 Freeway and does not include any land south of the freeway. The CHCCSP project area boundary does not include the ARMC property or the Hermosa Gardens Cemetery.
- The West Valley HCP plan area boundary does not extend south of Valley Boulevard but does include 5.8 acres of non contiguous area south of the I-10 freeway along a segment of Slover Avenue and does include the ARMC property and Hermosa Gardens Cemetery.

4.4.2 Environmental Setting

4.4.2.1 Regulatory Framework

Regulatory agencies responsible for the preservation and/or conservation of biological resources define these resources as follows:

- Any species identified as a federal candidate for listing as a sensitive species, or as having special status in local or regional plans, policies or regulations by the California Department of Fish and Wildlife (CDFW) or the US Fish and Wildlife Service (USFWS);
- Any habitat designated as State Sensitive Habitat by the CDFW Natural Heritage Program;

- Any wetlands or other "waters of the United States" (U.S.) afforded protection pursuant to Section 404 of the Clean Water Act;
- Any riparian or wetland habitats afforded protection pursuant to Section 1600 of the State Fish and Wildlife Code;
- Any native resident or migratory wildlife corridors;
- Any native wildlife nursery sites;
- Any occupied nesting habitat for birds afforded protection pursuant to the Migratory Bird Treaty Act (MBTA); and
- Any plant and wildlife habitats afforded protection pursuant to HCPs and Natural Community Conservation Plans.

Federal

Federal Endangered Species Act

The purpose of the federal Endangered Species Act (FESA) is to provide a means to conserve the ecosystems that endangered and threatened species depend on, and to provide a program for conservation and recovery of these species. FESA defines species as "endangered" and "threatened" and provides regulatory protection for any species so designated. Section 9 of the FESA prohibits the take of species listed by the USFWS as threatened or endangered. As defined in the FESA, take means "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." In recognition that take cannot always be avoided, Section 10(a) of the FESA includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Section 10(a)(1)(B) permits (incidental take permits) may be issued if taking is incidental and does not jeopardize the survival and recovery of the species in the wild.

Section 7(a)(2) of the FESA requires all federal agencies, including the USFWS, to evaluate the proposed project with respect to any species proposed for listing or already listed as endangered or threatened and their critical habitat, if any, are proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species, and are prohibited from authorizing, funding, or carrying out any action that will jeopardize a listed species or destroy or modify its "critical habitat." As defined in the FESA:

> *..."individuals, organizations, states, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a Federal permit, license, or other authorization, or involve federal funding"...*

The USFWS's Recovery Plan criteria for this species call for the permanent protection of at least four populations of DSF within the Colton Recovery Unit (RU), two to the north and two to the south of the I-10 Freeway. While it is recognized that there is significant DSF habitat south of the I-10 Freeway in the City of Colton, much of that area is currently undeveloped; already has an established 165-acre DSF conservation bank - the Colton Dunes Conservation Bank - that is providing long-term protection to DSF population(s) south of the I-10 Freeway; and is subject to several smaller, independent ongoing HCP efforts for the preservation of DSF habitat. The West Valley HCP focuses on preserving populations north of the I-10 Freeway. At least three populations are known to occur north of the I-10 Freeway, including those within the area proposed for conservation in the CHCCSP project area under the West Valley HCP.

No other federally listed threatened or endangered species are known in the CHCCSP project area. Two other species have a low potential to occur within the project area due to the low quality of the habitat and the area's location within an urbanized area. These are the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) (*endangered*); and the Coastal California gnatcatcher (*Polioptila californica californica*) (*threatened*). These are discussed further in the Sensitive Species discussion below.

Migratory Bird Treaty Act (MBTA)

The MBTA makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union. As with the FESA, the MBTA authorizes the Secretary of the Interior to issue permits for incidental take of migratory birds. Migratory birds that may use sites in the project are discussed further in the Sensitive Species discussion below.

Section 404 of the Federal Clean Water Act

Section 404 of the Federal Clean Water Act, which is administered by the US Army Corps of Engineers (USACE), regulates the discharge of dredge and fill material into waters of the United States. The term "waters of the U.S." includes (1) all waters that are or may be used in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide; (2) wetlands; (3) all waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; (4) all impoundments of water mentioned above; (5) all tributaries of waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to the waters mentioned above. Under this definition, and in the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters extend to the ordinary high water

mark (OHWM). The OHWM is defined as "...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible.

USACE has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.3 acre of waters of the U.S. Projects that result in impacts to less than 0.3 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits, if proposed activities are consistent with the standard permit conditions. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

The nearest body of water that is considered waters of the US is the Santa Ana River. Projects would be subject to USACE review if they released water from a site into the river or a tributary of the river, including but not limited to municipal stormdrains.

State California

Section 2080 and 2081 of the State Fish and Wildlife Code

Section 2080 of the State Fish and Wildlife Code (Code) states that:

> *"...no person shall import into this State (California), export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission (State Fish and Wildlife Commission) determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act, or the California Desert Native Plants Act..."*

Under Section 2081of the Code, CDFW may authorize individuals or public agencies to import, export, take, or possess, any state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or memoranda of understanding if the following criteria apply:

1. The take is incidental to an otherwise lawful activity;
2. Impacts of the authorized take are minimized and fully mitigated;

3. The permit is consistent with any regulations adopted pursuant to any recovery plan for the species; and
4. The applicant ensures adequate funding to implement the measures required by the CDFW.

CDFW would make this determination based on the best scientific and other information that is reasonably available and shall include consideration of the species' capability to survive and reproduce.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) includes measures to preserve, protect, and enhance rare and endangered native plants. The definition of "rare and endangered" differs from those contained in the California Endangered Species Act (CESA), however, the list of native plants afforded protection pursuant to this act includes those listed as rare and endangered under CESA. The NPPA provides limitations on take as follows:

> *"...no person will import into this State, or take, possess, or sell within this State" any rare or endangered native plant, except in compliance with provisions of the act. Individual land owners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material."*

Section 3503 of the State Fish and Wildlife Code

Section 3503 of the Code states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Section 1600 of the State Fish and Wildlife Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California are subject to the regulatory authority of the CDFW pursuant to Sections 1600 through 1602 of the Code, requiring an applicant to enter into a Streambed Alteration Agreement with CDFW. Under the Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. CDFW also has jurisdiction within altered or artificial waterways, such as flood control channels, based on the value of those waterways to fish and wildlife, and also has jurisdiction over dry washes that carry water ephemerally during storm events.

Natural Community Conservation Planning (NCCP) Program

The NCCP Program is managed by CDFW and is designed to conserve multiple species and their habitats, while also providing for the compatible use of private land. Through local planning, the NCCP planning process protects wildlife and habitat before the landscape becomes so fragmented or degraded by development that listings are required under the CESA. Instead of saving small, disconnected units of habitat for just one species at a time, agencies, local jurisdictions, and other interested parties have an opportunity, through the NCCP, to work cooperatively to develop plans that consider broad landscapes, or "ecosystems," and the needs of many species. Partners enroll in the programs and, by mutual consent, habitat areas with high conservation values are set aside and may not be developed. Partners also agree to study, monitor, and develop management plans for these "reserve" areas. The program provides a process for fostering economic growth by allowing approved development in enrolled areas with lower conservation values.

4.4.2.2 Existing Conditions

Climate

The City of Colton is located in southern California, an area characterized as a semi-arid Mediterranean climate with mild winters and warm summers. Most precipitation occurs as rainfall during the months of December through March, with occasional summer thunderstorms associated with monsoon conditions. The average annual precipitation in the City is 15.32 inches, which is distributed mainly during the winter and spring seasons with a maximum average of 3.70 inches received during the month of February. The coolest month of the year is January, with an average monthly low of 44° Fahrenheit (F). The warmest month is July, with an average monthly high of 95° F. Temperatures range from about 38 to 100 degrees Fahrenheit annually.

Soils and Topography

Elevations on the site range from 1,000 to 1,100 feet above mean sea level (msl). The terrain is generally flat. Exhibit 4.4-1, *Delhi Sands Soils*, shows that the majority of the site once contained Delhi soils (based on a 1970's soil survey). Much of the historical soil conditions have been lost due to prior development, agricultural uses or the golf course. Therefore, Exhibit 4.4-1 should be considered for a discussion of historic range of the DSF only. There is some evidence of dune formation, but natural Delhi sand dunes have been altered in the last century by human activities.

The surrounding terrain consists of a flat valley floor gently sloping downward from the San Bernardino and San Gabriel Mountains on the north. The underlying soil is classified as

Quaternary age alluvial (water) and eolian (wind) deposits. Groundwater is stored in Pleistocene deposits, at depths ranging between 100-200 feet below ground surface. Surface terrain elevation ranges from approximately 1,025 feet above msl at the furthest southeastern corner of the Plan area to 1,145 feet above msl at the northern boundary of the area along San Bernardino Avenue just west and adjacent to the City's Park at the intersection of San Bernardino Avenue and Eucalyptus Avenue.

Hydrology

The project area is located on a gently sloping alluvial plain associated with Lytle Creek, a major ephemeral drainage emanating from the Cajon Pass, the geologic boundary between the San Gabriel Mountains and the San Bernardino Mountains, and emptying into the Santa Ana River to the southeast of the project area. The project area varies in grade from approximately 0.5 percent to 1.5 percent across the property in a north to south direction.

Due to the general undeveloped nature of large portions of the project area there is little evidence of a drainage pattern, other than generalized sheet flow that follows the gentle slope of the land that is then interrupted where properties have been developed. Where development has occurred, there has been flooding problems, particularly at the intersection of Valley Boulevard and Meridian Avenue.

Land Uses

The western portion of the project area, west of Pepper Avenue, is developed with a combination of uses including MacNelius Trucking, the LDS Family Services Center, a vacant warehouse, various commercial buildings, a hotel, and an office building occupied by the San Bernardino County Department of Social Services. A significant portion of the project area west of Pepper Avenue is vacant land or land used as open space/recreation (Colton Golf Club and City Park). This portion of the project area also includes 4.5 acres of existing DSF habitat in conservation (Laing site) along the Eucalyptus Avenue alignment (not improved).

The eastern portion of the project area, east of Pepper Avenue is a combination of developed and undeveloped land. Vacant land occupies a significant portion of the project area between Meridian Avenue and Hermosa Avenue (Planning Area 24) with commercial retail uses at the southeastern corner of the site. Several residences and the Colton Joint Unified School District's Slover Mountain High School are located along Hermosa Avenue. A major portion of the West Valley HCP area that is outside the CHCCSP project area is directly east of Pepper Avenue on property associated with the County of San Bernardino's ARMC, and the Hermosa Gardens Cemetery. This portion of the HCP area also includes 8.5 acres of existing DSF habitat in conservation (Hospital Reserve site and Pepper Avenue/Valley Blvd site).

There is strong evidence of illegal dumping and many transient camps can be seen in the project area. Dumpsites are generally located near the transient camps with additional locations in areas that offer a more secluded view from the local streets and can be accessed by unpaved roads.

4.4.2.3 Biological Resources

There are forty-two native species of birds, mammals, reptiles, insects, and plants listed with the California Natural Diversity Database (CNDDB) as occurring in the San Bernardino South Quadrangle, which includes the CHCCSP project area. Additionally, there are three sensitive natural communities identified. However, only a handful of these species have the potential to occur in the project area.

Vegetation Communities

Vegetation throughout most of the project area is a mixture of native vegetation and ruderal vegetation. Dominant components of the native vegetation include California buckwheat (*Erigonum fasciculatum*), telegraph weed (*Heterotheca grandiflora*), and California croton (*Croton californicus*). Ruderal vegetation is mostly non-native grasses (NNG), including ripgut grass (*Bromus diandrus*), Mediterranean grass (*Schismus* sp.), and wild oat (*Avena* sp.), all invasive species, were present. Other non-native components included tumbleweed (*Amaranthus albus*), mustard (*Brassica* sp.), shortpod mustard (*Hirschfeldia incana*), redstern filaree (*Erodium cicutarium*), and puncture vine (*Tribulus terrestris*).

Wildlife Species

Due to the heavy disturbance within the CHCCSP project area, floral and faunal species are those that are typically found in urban or agricultural areas. Birds within the project area are those typically associated with urbanized areas. Common avian species observed during the habitat assessment for the West Valley HCP include California towhee (*Pipilo californica*), lesser goldfinch (*Carduelis psaltria*), song sparrow (*Melospiza melodia*), and house finch (*Capodacus mexicanus*). Raptors include red-tailed hawks (*Buteo jamaicensis*), American kestral (*Falco spanierius*), and burrowing owls (*Athena cumicularia*) (BUOW). Mammalian species are limited to those that have adapted to or can coexist with humans, such as pocket gophers (*Thomomys bottae*), California ground squirrel (*Citellus beecheyii*), desert cottontails (*Sylvilagus auduboni*), coyote (*Canis latrans*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*).

Sensitive Species

Sensitive biological resources are plant communities, habitats or individual species that have special recognition by federal, State, or local conservation agencies and organizations as

endangered, threatened, rare or otherwise sensitive. The CDFW, USFWS, and special groups like the California Native Plant Society (CNPS) maintain watch lists of such resources. The primary focus of the West Valley HCP is the management of Delhi Sands habitat within the CHCCSP project area and adjacent properties within the larger WVSP project area (ARMC and cemetery), including areas suitable for DSF. Table 4.4-1, *Sensitive Wildlife Species Potentially Occurring in the City,* provides a list of sensitive wildlife species from the California Natural Diversity Database that could occur within the project area and its vicinity, and the potential for their occurrence. The paragraphs below provide brief descriptions of the species that are present in the project area, or that have a reasonable potential (moderate) to occur there.

Sensitive Plants

In addition to field surveys for the HCP, biologists conducted a literature search of the following databases: CNPS, Electronic Inventory of Rare and Endangered Vascular Plants of California, CDFW RareFind2 Program; and CDFW's Endangered, Threatened and Rare Plants of California. No sensitive plants appear in the literature for the project area. Based on the literature review, no sensitive plants have the potential to occur in the proposed CHCCSP project area. No sensitive plant species were encountered within the project area during previous biological inventories or in the 2012 survey. Some endangered plant species have the potential to inhabit the river floodplain along the Santa Ana River, including slender-horned spineflower (*Dodecahema leptoceras*) and Santa Ana River woollystar (*Eriastrum densifolium ssp. Sanctorum*); however, the floodplain does not extend into the project area. Other endangered plant species in the San Bernardino Valley are associated with wetlands, and there are no wetlands in the project area.

Sensitive Wildlife

Table 4.4-1 provides a list of sensitive wildlife species that could potentially occur within CHCCSP project area and the potential for their occurrence. The table shows all species with the potential to occur in the project area, even if the potential is low and lists only one species that is known to be present, the Delhi Sands Flower-loving Fly. A summary of species that are present or that have a moderate potential to occur in the project area are described below following Table 4.4-1.

Burrowing Owl (Athena cunicularia hypugea) - SSC

The burrowing owl is a small crepuscular owl that utilizes existing burrow complexes built by other animals such as ground squirrels (*Spermophilus beecheyi*). Burrowing owls were once very abundant in California but have seen a steady decline over the past one hundred years, especially in the last 20 years.

Table 4.4-1 Sensitive Wildlife Species Potentially Occurring in the City of Colton

Species		Status		Potential for Occurrence
Scientific Name	**Common Name**	**USFWS**	**CDFG**	
Rhaphiomidas Terminatus abdominalis	Delhi Sands Flower-loving Fly	FE	None	Present
Depodomys merriami parvus	San Bernardino Kangaroo Rat	FE	None	Low
Polioptila californica californica	Coastal California gnatcatcher	FT	SSC	Low
Aimophila rufieceps canesens	Southern California rufous-crowned sparrow	FSC	SSC	Low
Perognathus longimenbris brevinasus	Los Angeles pocket mouse	FSC	SSC	Low
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	FSC	SSC	Low
Athena cunicularia hupugaea	Burrowing owl	None	SSC	Moderate
Phrynosoma coronatum blainvillei	San Diego Horned Lizard	None	SSC	Moderate
Cnemidophorus hyperythrus	Orange-throated whiptail	None	SSC	Low
Amphispiza belli belli	Bell's sage sparrow	None	SSC	Low
Lanius ludovicianus	Logger-headed shrike	FSC	SSC	Moderate
Aguila chrysaetos	Golden Eagle	None	SSC	Low
Accipiter cooperi	Cooper's Hawk	None	SSC	Low

Potential for Occurrence:

Low = Low potential for occurrence – No recent or historical records exist of the species occurring in the City or its immediate vicinity (within approximately 5 miles) and the diagnostic habitat requirements strongly associated with the species do not occur in the City or its immediate vicinity.

Moderate = Moderate potential for occurrence – Either a historical record exists of the species in the City or its immediate vicinity or some of the diagnostic habitat requirements associated with the species occur in the City or its immediate vicinity.

High = High potential for occurrence – Both a historical record exists of the species in the City or its immediate vicinity and the diagnostic habitat requirements strongly associated with the species that occur in the City or its immediate vicinity.

U.S. Fish and Wildlife Service

FE Federal Endangered
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern

California Department of Fish and Wildlife

SE State Endangered
ST State Threatened
SSC State Species of Special Concern

Source: West Valley HCP, 2014

Burrowing owls commonly nest in roadside banks and agricultural areas. They are protected by CDFW as a species of special concern, as well as by the federal MBTA. Former agricultural areas and fallow fields in the CHCCSP project area provide suitable foraging and nesting habitat for this species. Conservation of suitable DSF habitat would also provide conservation opportunities for the burrowing owl.

San Diego Horned Lizard (Phrynosoma coronatum) - FSC and SSC

This species generally occurs in grassland, sage scrub, and chaparral but can also be found in coniferous forest and broadleaf woodland. The species is usually found in open sandy areas such as ridge tops and washes, especially where harvester ants (*Pogonomyrmex* spp.) are found. This species has often been observed within fallow fields in the general area of the project area. There is moderate potential for this species to occur within the project area.

Logger-headed shrike (Lanius ludovicianus) - SSC

The loggerhead shrike is a small predatory bird that prefers semi-open areas with shrubs and small trees. It is also known in many parts as the "butcher bird;" it impales its prey on thorns or barbed wire before eating it, because it does not have the talons of the larger birds of prey. It is because of this behavior that it prefers areas with thorn bushes and rangelands with barbed wire fences. Thorn bushes and barbed wire are not a requirement for loggerhead to forage or breed in a particular area. The CHCCSP project area contains moderate habitat requirements. There is moderate potential for this species to occur within the project area.

Delhi Sands Flower-loving Fly (Rhaphiomidas terminatus abdominalis) - FE

The DSF is endemic to the Colton Dunes (Delhi sand series soils) in areas that contain suitable conditions for the subterranean early stages adult nectar sources and adult feeding breeding and perching areas. Soil and climatic conditions and other ecological and physical factors contribute to the maintenance of open areas within the species range. Urban development, agricultural conversion aggregate mining, invasion by exotic species, unauthorized dumping of trash, and off-road vehicle activity have caused loss and modification of a significant portion of this species habitat within the project area. The former range of the species (coinciding with the Delhi sand soils formation) has been divided into three Recovery Units (RUs): Jurupa Colton and Ontario. Exhibit 4.4-2, *West Valley HCP/CHCCSP Area Boundaries*, shows the location of the CHCCSP project area and its relationship with the West Valley HCP area.

Exhibit 4.4-3, DSF Habitat Quality, shows the locations of suitable low medium and high-quality DSF habitat in the project area and the adjacent ARMC and cemetery. Exhibit 4.4-4, *Existing and Proposed DSF Conservation Areas*, shows existing and proposed Conservation Areas in and adjacent to the CHCCSP project area that when combined, will result in 63.7 acres of DSF

habitat in permanent conservation north of the I-10 Freeway in the West Valley HCP area. The proposed conservation area, including land within the CHCCSP project area is 48.4 acres in planning areas 3, 6, 11, 14, and 18. Note: the HCP identifies 50 acres; the discrepancy is related to how the individual parcel areas were calculated. However, because the planning areas being set aside are whole parcels and not fractions thereof, the discrepancy does not affect the analysis of the impacts to DSF and other species that also use the DSF habitat. Planning Area 14 is Open Space/Park that will serve as a land bridge between planning areas 11 and 18. Planning Area 18 includes the existing 4.5-acre Laing conservation site on Eucalyptus Avenue. The West Valley HCP also includes properties already in conservation: the existing Hospital Reserve Site (6.8 acres); and the Valley/Pepper Conservation Area (2 acres). The HCP also includes a set aside of 6.5 acres in the Hermosa Gardens Cemetery.

DSF is the only federally listed species known to occur within the CHCCSP project area. DSF was federally listed as endangered on September 23, 1993 (*Federal Register*, 1993). These flies are relatively large, with size among the species ranging from approximately 1.5 to 4 centimeters. All species of Rhaphiomidas are associated with arid, sandy habitats, with most species living on dune systems of inland desert valleys, rivers, deltas, and beach strands.

The adult DSF flight period is typically July through September, when individual adults emerge, reproduce and die. The adult life span of an individual DSF is thought to last for a few weeks at most. DSF, like other Rhaphiomidas species, appears to have an annual life cycle (because of the annual flight). However, it is widely believed that the underground larval/pupal stage may persist for additional years, depending upon various environmental factors such as annual rainfall, food availability and weather conditions during the flight season. It is known that DSF larvae develop underground; however, the specific biology (larval biology, habits and food requirements) is not yet known for the DSF and further studies in the HCP plan area may assist scientists in answering these questions.

The DSF is only known to occur in association with Delhi sand deposits and presumably occupied the once extensive dune system of the upper Santa Ana River Valley, including portions of what is now the City of Colton, west through portions of the cities of Rialto, Fontana and Ontario, and south to the Santa Ana River. Today, DSF exist on only a few disjunct sites within a radius of about 8 miles in southwestern San Bernardino and northwestern Riverside counties (USFWS 1997). More than 95 percent of known DSF habitat was considered eliminated by development, agriculture and other land management practices by 1993. Many of the last remaining fragments of DSF habitat have been under pressure by land management efforts such as heavy disking, irrigation, manure dumping, and gravel dumping as well as urban development.

Quality of DSF Habitat

In determining DSF habitat quality, clean, aeolian deposited Delhi soils are the key component. These soils occur in various habitats including coastal sage scrub, disturbed non-native grasslands, and landscaped/ornamental areas. Throughout the HCP plan area, the quality of DSF habitat varies from unsuitable to high quality. However, habitat quality continues to degrade due to the impacts of illegal dumping, off-highway vehicles, non-native vegetation invasion, and the lack of management to maintain a perpetual sand supply.

Conversely, soils and sands deposited by fluvial processes from the surrounding alluvial fans do not support DSF. These alluvial soils are composed of coarse sands, cobble, and gravel, as exemplified by the Tujunga soil series. In this part of San Bernardino County, the normal separation of these two soil types, Delhi sands and Tujunga soils, has been lost as a result of past agricultural practices (i.e., the disking of fields has mixed the Tujunga soils found along the edge of the sand dunes with the clean Delhi sands found within the dunes). Depending on the extent of mixing and contamination, some areas formerly mapped as Delhi sands no longer have potential to support DSF populations.

The quality of Delhi soils on vacant parcels in the HCP area was originally rated for its potential to support DSF. Each vacant parcel or open area was visually inspected and rated based on a scale of 1 to 5, with 5 being the best quality and most suitable habitat in the biologist's judgment:

1. *Unsuitable*. Soils dominated by heavy deposits of alluvial material including coarse sands and gravels with little or no Delhi sands and evidence of soil compaction.
2. *Very Low Quality*. Delhi sands are present but the soil characteristics include a predominance of alluvial materials (Tujunga Soils).
3. *Low Quality*. Although not clean, sufficient Delhi sands are present to prevent soil compaction. Some sandy soils exposed on the surface due to fossorial animal activity.
4. *Moderate Quality*. Abundant clean Delhi sands with little or no alluvial material or Tujunga soils present. Moderate abundance of exposed sands on the soil surface. Low vegetative cover. Evidence of moderate degree of fossorial animal activity by vertebrates and invertebrates.
5. *High Quality*. Sand dune habitat with clean Delhi sands. High abundance of exposed sands on the soil surface. Low vegetative cover. Evidence (soil surface often gives under foot) of high degree of fossorial animal activity by vertebrates and invertebrates.

The parcels proposed for inclusion in the West Valley HCP conservation area within the CHCCSP project area were all identified as High Quality habitat.

4.4.3 Environmental Impacts and Mitigation Measures

4.4.3.1 Thresholds of Significance

The following criteria for establishing the significance of potential impacts on biological resources were derived from the CEQA guidelines:

a) Has a substantial adverse effect, through either direct or indirect modification of potentially suitable or occupied habitat, or direct take, to any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
b) Has an adverse effect on existing riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS;
c) Has 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) Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native, resident, or migratory wildlife corridors or impedes the use of native wildlife nursery sites;
e) Conflicts with regional policies or other local policies or ordinances protecting biological resources; and/or
f) Conflicts with approved local, regional, or State habitat conservation plans.

4.4.3.2 Covered Activities

The West Valley HCP addresses the short-term requirements for economic development of the City of Colton while continuing to accommodate the long-term survival of this species as described in USFWS's Recovery Plan (USFWS 1997). As such, the City of Colton has applied for a permit from the USFWS pursuant to Section 10(a)(1)(B) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), authorizing the incidental take of the DSF for a period of 30 years. This incidental take is expected to occur as a result of various proposed covered activities related to the development or redevelopment of properties within the CHCCSP project area. These are as follows:

1. New commercial, residential, industrial, and agricultural and/or horticultural development within the "Developable Land" category as defined in the West Valley HCP.
2. Redevelopment programs and projects within the "Developed Land" category where

properties are already developed with urban uses.

3. Construction, operation and maintenance of public or public use facilities/structures with "Developed" and "Developable" land, including:
    a. Public roadways to their ultimate width as identified in the City's General Plan;
    b. Improvements identified in adopted Transportation Improvement Programs;
    c. Public utility infrastructure;
    d. Trails and public access facilities; and
    e. Other public facilities and projects identified in the City's General Plan and/or Capital Improvement Plans.
4. Closure and rehabilitation of a 5.8 acre area encompassing a section of East Slover Avenue west of Pepper Avenue (not a part of the CHCCSP project area).
5. Construction, operation and maintenance within the Conservation Areas as defined in Section 5 of the West Valley HCP) and as illustrated in Exhibit 4.5-5, On-Site Conservation and Development.
    a. Trails;
    b. Passive Recreation, limited to non-consumptive uses such as wildlife observation, walking on designated trails; and
    c. Management of designated conservation areas, natural open spaces, or sensitive habitats.
6. Emergency, Safety and Police Services, Local, State and federal law enforcement entities will be allowed access to the Covered Lands and the Conservation Areas as necessary to enforce the law. Medical, rescue, firefighting operations, and other emergency service providers will be allowed access to the Covered Lands and the Conservation Areas to carry out operations necessary for the health, safety and welfare of the public.

4.4.3.3 *Impact Analysis*

a) Candidate, Sensitive, or Special Status Species

Delhi Sands Flower-Loving Fly

Direct Impacts

The incidental take levels of DSF habitat would occur primarily through the direct loss of habitat within the West Valley HCP plan area, including habitat located within the CHCCSP project area (see Exhibits 4.4-4 and 4.4-5). Exhibit 4.4-5, *Preserve Management Units*, shows the conservation areas that will be managed by the Riverside Land Conservancy. In general, these take levels are estimated losses of varying qualities of suitable DSF habitat as jointly identified

by the City of Colton and USFWS. USFWS has determined that high, moderate, and low habitat suitability are either occupied by DSF, as determined by protocol surveys, or are likely occupied based on proximity to known occupied sites.

A total of 148.5 acres in the HCP area contain potentially suitable DSF habitat, all of which are found within the Colton DSF Recovery Unit. Exhibit 4.4-4 shows the quality and location of DSF habitat within the Plan area. With the implementation of the HCP and issuance of an incidental take permit; authorized development could occur on 79.4 acres of low, moderate, and high quality DSF habitat, mostly within the CHCCSP project area. A total of 48.4 acres of habitat within the CHCCSP project area that are mostly high and moderate quality DSF habitat, including 0.4 acres within a 0.6-acre land bridge/linear park (Planning Area 14), would be set aside for permanent habitat conservation and maintenance. The conserved areas encompass the majority of the known occupied DSF habitat in the HCP area. Without the HCP, the high and moderate quality occupied DSF habitat might otherwise be degraded or lost but, instead will be combined with existing and proposed conservation areas, creating a total of 63.3 acres of preserved DSF habitat north of the I-10 Freeway. These are the existing Hospital and Valley/Pepper conservation sites (8.8 acres), and the proposed 6.5 acres at the cemetery site.

Under the HCP, City of Colton proposes to entitle 79.4 acres of primarily low quality DSF habitat for development within the HCP boundaries, while proposing to conserve 48.4 acres high and moderate quality DSF habitat onsite (planning areas 3, 6, 11 and 18). The non-conserved portion of the linear park will feature a habitat linkage walkway of decomposed granite. The walkway will include interpretative signs on DSF and the Colton Dunes habitat.

According to biologists preparing the HCP, future development of vacant properties with Delhi sands that are identified as developable properties would destroy all DSF eggs, larvae and pupae that may exist within those properties; however, it is anticipated that few, if any, adults would be lost due to the low density of DSF and the ability of adult DSF to escape direct impacts. Development within the CHCCSP project area and within the HCP plan area would be subject to restrictions of the HCP, including mitigation fees for the restoration of conserved habitat, offsite mitigation.

Temporary Impacts

It is anticipated that initial cleanup and restoration of conservation areas and future management activities will result in disturbance to small amounts of DSF habitat, estimated to be 0.05 acre and that ongoing restoration, management and monitoring activities after that will result in 0.10 acre of disturbance every 5 years, totaling 0.6 acres during project implementation. It is expected that a few individual DSF within the proposed conservation areas could be taken as a result. Site management activities will be focused on vegetation

management and trash removal. While these activities are unlikely to affect DSF if appropriate minimization measures are implemented, minor ground disturbance may injure or kill a small number of eggs, larvae, and/or pupae. Table 4.4-2, *Temporary Impacts to DSF Habitat*, shows acreage by each temporary impact.

Table 4.4-2 Temporary Impacts to DSF Habitat

Project Impact	Acreage	Total Acreage
Initial restoration and cleanup of conservation areas	0.05 acre	0.05
Maintenance of conservation areas	0.1 acre every 5 years	0.60
Closure of Slover Avenue	0.05 acre	0.05
Emergency repairs and law enforcement activities	0.05 acre every 3 years	0.50
Trail maintenance	0.025 acre every 5 years	0.15
	Total	**1.35**

Source: Draft West Valley HCP, January 2014

Although the various conservation areas will be fenced to control unauthorized access, access by emergency vehicles, principally police and fire, could result in temporary disturbance to small amounts of DSF habitat. It is estimated to be less than 0.05 acre every 3 years, for a total of 0.5 acre over the life of the incidental take permit. It is expected that the minor disturbance associated with emergency entrance into one of the conservation areas may injure or kill a small number of adults, eggs, larvae, and/or pupae.

In total temporary impacts from establishing and maintaining conservation areas including the restoration of Slover Avenue, trail maintenance, as well as accommodating the occasional need for emergency repairs and law enforcement activities are estimated to result in 1.35 acres impacted over the life of the permit (30 years).

West Valley HCP Management Strategy

Exhibit 4.4-5 shows the existing conservation sites, future proposed conservation areas, and areas where development may move forward once the HCP is approved and the Implementing Agreement is signed. Conservation of DSF habitat north of the I-10 Freeway is necessary because without the cooperative approach presented in the West Valley HCP, it is both the City of Colton's and USFWS's opinion that the quality and expanse of DSF habitat within the City of Colton will continue to diminish. The preparation of the West Valley HCP therefore, serves two purposes: 1) it sets forth a program for protecting natural resources while managing growth; and 2) it resolves and implements economic development opportunities for the City. More specifically, the City intends that the West Valley HCP will:

- Develop avoidance, minimization, and mitigation measures consistent with the FESA that support the long-term conservation needs of the DSF, a federally endangered species;

- Proactively address requirements of the FESA to ensure conservation of important natural resources while allowing for economic development activities in the West Valley HCP plan area/CHCCSP project area. This will be accomplished by securing an incidental take permit for the take of DSF for covered activities north of the I-10 Freeway; and

- Provide a means to standardize avoidance, minimization and mitigation requirements that will lessen or avoid indirect and cumulative impacts to DSF occurring within the City of Colton north of the I-10 Freeway.

See Mitigation Measure section below for specific measures that would be implemented in the project area to protect the DSF and its habitat.

Other Listed Wildlife Species

As shown in Table 4.3-1, the project area with its soil type and vacant properties provides habitat for other species with a moderate potential for occurrence. Moderate potential is based on either the existence of a historical record of the species in the project area or its immediate vicinity or that some of the diagnostic habitat requirements associated with the species occur in the project area or its immediate vicinity. There were three species with a moderate potential to occur, burrowing owl, San Diego horned lizard, and Logger-head shrike. Burrowing owl and San Diego horned lizard have often been observed in fallow fields and vacant lots in the project area. Likewise, the project area provides suitable habitat for Loggerhead shrike which includes grasslands interspersed with scattered trees and shrubs that provide nesting and perching sites. Other species that could occur on site were identified as having a low probability to occur. This means that there are no recent or historical records existing for the species occurring in the City or its immediate vicinity (within approximately 5 miles) and the diagnostic habitat requirements strongly associated with the species do not occur in the City or its immediate vicinity. Because these species have a moderate potential to occur within the project area, conservation of suitable habitat for DSF would also provide conservation opportunities for the three other species with a moderate potential to occur in the project area.

DSF Conservation Strategy

The conservation strategy and biological objectives set forth in the HCP are summarized here. Mitigation Measures are included at the end of the Biological Resources section. The HCP is

provided in Appendix D of this EIR for further reference. As a reminder, the HCP area and the CHCCSP project area overlap extensively, except that the project area does not include the ARMC site, the Hermosa Gardens Cemetery or the segment of Slover Avenue west of Pepper Avenue, and the HCP area does not include the developed area between Valley Blvd and the I-10 Freeway.

Although not listed as state or federal endangered or threatened species and with a low potential for occurrence in the project area, conservation of DSF habitat in the project area and the larger HCP plan area has the added benefit of providing habitat for other species of concern with a moderate potential to occur in the project area.

Biological Goals

The conservation strategy for the HCP area recognizes that the area is one of the few remaining viable DSF habitat areas north of the I-10 freeway, as emphasized by USFWS's 5-Year Review of the DSF (March 2008). The protection of sufficient high quality DSF habitat within the HCP area is needed to ensure the long-term survivability of DSF populations north of the I-10 freeway. To accomplish this level of protection, the City of Colton and USFWS developed the following goals:

- Preserve large blocks of DSF habitat north of the I-10 Freeway so that there is adequate open space, a perpetual sand supply and high quality habitat for DSF and associated Delhi Sands plant community species;
- Protect important DSF populations north of the I-10 Freeway in the Colton Recovery Unit;
- Provide a connection between important populations north of the I-10 Freeway;
- Provide long-term conservation management of DSF populations in Colton north of the I-10 Freeway;
- Protect DSF habitat along East Slover Avenue between Riverside Avenue and Pepper Avenue; and
- Develop an education program for the citizens of the City of Colton about the Delhi Sands natural community, DSF and the ongoing efforts to protect it, and a discussion of why the species was listed and what can be done to reduce impacts to the species.

Biological Objectives

The above goals are supported by the following biological objectives:

- Those areas identified as providing moderate, high quality, DSF habitat and that have been designated for long-term conservation will be mapped as DSF conservation areas within the HCP area. No development will be allowed within these designated conservation areas;
- Implement a per acre mitigation fee for all development areas within the HCP

boundaries with DSF habitat;
- With these monies, fund the purchase and long-term management of a large conservation area within the City of Colton, north of the I-10 Freeway that contain high-quality sand dune habitat for the DSF;
- Proactively manage the proposed conservation area for the preservation and recovery of DSF populations in north Colton;
- Minimize impacts to DSF and their habitat by imposing development standards, including avoidance and minimization measures.

Conservation strategies listed here in conjunction with implementation of mitigation measures; identified at the end of this section will ensure that impacts to Biological Resources would be less than significant. Each of these mitigation measures will be considered as a project by project basis for all future development projects in the project area including sites that are already developed but may be proposed for redevelopment in the future.

b and c) Riparian and Wetland Habitat

Review of topographic maps, aerial photographs and field surveys conducted as part of the preparation of the HCP show that there are no riparian habitat, wetlands or other jurisdictional waters occurring within the CHCCSP project area. This work was conducted specifically for the DSF habitat and did not focus specifically on riparian habitat. However, the project area is characterized by acres of undeveloped vacant land that was easily accessible during field visits, and could be evaluated through aerial photo interpretation.

The project area is located within the boundaries of the San Bernardino County Flood Control District. That portion of the project area that lies west of Eucalyptus Avenue drains south and westerly towards Valley Boulevard and Sycamore Avenue, to the Rialto Channel Drainage Area, in Master Plan Drainage Area 3-3. That portion of the project that lies east of Eucalyptus Avenue drains south and easterly towards Valley Boulevard and Meridian Avenue to the previously constructed 108-inch storm drain pipe at Meridian and I-10 Freeway, in Master Plan Drainage Area 3-5. This existing Master Plan 108-inch storm drainpipe is bulkheaded at the I-10 Freeway. Ultimately, the regional storm drains outlet into the Santa Ana River and thus new development in the project area will be required to meet the requirements of the Regional Water Quality Control Board with regard to control of stormwater runoff, both in quality and quantity. Storm drain development will be an on-going activity in the project area as development of new projects or the redevelopment of currently underdeveloped properties occurs.

As properties are developed in the CHCCSP project area, each project proponent will be responsible for the control of runoff from individual properties. See Section 4.7, Hydrology and Water Quality for specific mitigation measures. Compliance with regulatory requirements set

forth by the State Water Resources Control Board and the Regional Water Quality Control Board will ensure that impacts on water quality associated with runoff from development sites would be less than significant.

d) Wildlife Migration

Depending on the timing of construction, there is a potential for impacts to wildlife nursery sites to occur in conjunction with any proposed Covered Activity. One potential impact would be the disturbance of nesting birds including burrowing owls, which is a State species of special concern, or nesting sites of one of the many migratory bird species that winter in the San Bernardino Valley area and are protected under the MBTA. However, mitigation measures BI0-13 and BI0-14, identified at the end of this Section, would require pre-construction surveys for both tree and ground nesting birds prior to construction.

Although the project area is characterized by several acres of undeveloped vacant land, it does not represent a wildlife corridor because it is surrounded on all sides by urban uses, including residential uses to the north across San Bernardino Avenue, and the I-10 Freeway to the south.

e) Regional or Local Policies or Ordinances

There are no regional or local policies protecting biological resources in the project area. All applicable policies are implemented at the State and federal levels. The County of San Bernardino has not yet formulated a local Multi-Species Habitat Conservation Plan (MSHCP) for the Valley area.

f) Habitat Conservation Plans

There are currently no local or regional habitat conservation plans that apply to the proposed project site. As discussed above, the County of San Bernardino had been working on a MSHCP that would cover the project area, but the plan was put on hold due to lack of funding and other complications.

As a condition of approval, compliance with the CDFW and USFWS permit processes are required. CDFW's main purpose and functionality is:

> *"to provide for the conservation, protection, restoration, and management of fish, wildlife, and native plants and to preserve and restore the ecosystems (including ecological processes) on which they depend for use and enjoyment by the public".*

In addition, CDFW's Habitat Conservation Planning Branch lists the following strategic goals that are applicable to the CHCC project area:

- Lead and participate in science-based conservation strategies;
- Develop statewide conservation policies;
- Lead and collaborate in large-scale conservation plans;
- Improve conservation through effective use of CESA and CEQA;
- Contribute to listed species and habitat conservation efforts;
- Implement statewide tracking systems for environmental review, mitigation, conservation banks, and other programs;
- Direct funding to priority conservation actions and scientific research; and
- Provide information and education to the public and stakeholders.

CDFW also enforces the CESA and the USFWS enforces the FESA. Both agencies require permitting for "take" of an endangered species. Development of Covered Activities within the CHCCSP project area would be subject to restrictions of the proposed DSF HCP, including restoration of habitat in conservation areas, offsite mitigation, and/or proposed mitigation fees that will be imposed on developers.

4.4.3.4 Mitigation Measures

Mitigation measures BIO-1 through BIO-12 are exclusive to the HCP and have been incorporated into the EIR as mandatory mitigation measures. Implementation of the measures will be on a project by project basis, as development proposals are submitted and a sites proximity to a conservation area is identified. Mitigation measures BIO-13 and BIO-14 also apply to the CHCCSP on a project by project basis as burrowing owl and other avian species are known to occupy the project area, including sites that are already developed, and must be addressed by each project applicant.

General Measures to Avoid/Minimize Impacts

The following avoidance and minimization measures must be implemented during construction of Covered Activities in the HCP area.

BIO-1 Construction Monitoring

a. Covered Project Proponents will retain an experienced DSF biologist, e.g., someone who has conducted field research and/or presence/absence surveys, to function as the Biological Monitor for any development projects in the CHCCSP project area.
b. At least 30 days prior to initiating project activities, project proponents will submit to the City, in writing, the name(s), any permit numbers, and resumes of all prospective Biological Monitors.
c. Project activities, will not begin until a Biological Monitor(s) has been approved by

the City.

d. At least one week prior to grading, City-approved monitor(s) shall provide the City's Development Services Department with written and photographic documentation that the limits of construction have been properly defined, i.e., marked and fenced, are readily identifiable and are not encroaching on the existing or proposed conservation areas that will be established by this HCP.
e. The Biological Monitor(s) shall be responsible for ensuring that the approved limits of grading are not exceeded, that the fencing delineating the limits of construction is maintained, and that the contractor adheres to the other provisions set forth in this Section.
f. The Biological Monitor will visit the site at least a twice weekly during project construction.
g. The monitor(s), in cooperation with the on-site construction manager(s), shall have the authority to halt construction activities in the event that these provisions are not met.
h. The monitor(s) shall submit a report to the City's Development Services Department at the end of the month during each month of construction documenting the implementation of all grading and construction minimization measures.
i. If construction results in encroachment on existing or proposed conservation areas, the City will report the encroachment to the USFWS within 24 hours after receiving the monthly report.

BIO-2 The City of Colton will retain a qualified Biological Monitor for any repair, operations or maintenance, or emergency activities resulting in disturbance to occupied or potentially suitable DSF habitat. Biological Monitors for these activities will be subject to the same experience, approval and reporting requirements as for construction.

BIO-3 Worker Environmental Awareness Program

a. All contractors and city employees who may work in areas containing occupied or potential DSF habitat will attend a worker environmental awareness program (WEAP) conducted by a biological monitor familiar with the species, to ensure that they are informed of the sensitivity of conserved areas and all applicable avoidance and minimization requirements to ensure conformity with all applicable provisions of the HCP Section 5.3, General Measures to Avoid/Minimize Impacts. The Biological Monitor will present information on the life history, ecology, legal and conservation status of the DSF and potential penalties that could occur as a result of violations of the endangered species Act. The importance and significance of the associated HCP

and incidental take permit to the City of Colton will be emphasized. Personnel will be required to sign and date a form indicating that they have attended the program and fully understand the conservation measures and agree to comply.

BIO-4 Control of Toxic Substances - During and after the construction of any Covered Project, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be restricted so as to avoid impacts to DSF and their habitat.

BIO-5 Fire Prevention Equipment- to extinguish small brush fires (e.g., from trucks or vehicles) shall be present on site during all phases of construction, along with personnel trained in the use of such equipment. Smoking shall be prohibited in construction areas adjacent to flammable vegetation.

BIO-6 Controlled Access - Prior to commencement of clearing or grading activities, areas of existing conservation and areas proposed for conservation shall be clearly marked by a Biological Monitor, and temporary fencing will be installed to prevent disturbance by construction vehicles. All movement of construction personnel, including ingress and egress of equipment and personnel shall be limited to designated construction zones. The temporary fencing will be removed upon completion of all construction activities and replaced with permanent fencing to protect conserved habitat. The Covered Project Proponent and its contractor(s)/subcontractor(s) shall be responsible for compensating at a ratio of 10:1 (acre offsite conservation/acre impact) from the Colton Dunes Conservation Bank or through a private purchase of suitable DSF habitat and a commitment to its long-term management for the disturbance of sensitive habitat outside of the approved limits of construction. Any restoration mandated for infringements outside the project footprint shall require a restoration plan approved by the City.

BIO-7 Storage and Staging Areas - No temporary storage or stockpiling of construction materials shall be allowed within conserved areas/habitat, and all staging areas for equipment and materials shall be located a minimum of 50 feet away from existing or proposed conserved habitat. Staging areas and construction sites shall be kept free of trash, refuse, and other waste; no waste dirt, rubble or trash shall be deposited within conserved habitat.

BIO-8 Dust Control - Active construction areas shall be watered regularly to control dust, and to minimize impacts to nearby habitats, especially sensitive species habitat adjacent to construction areas. If at any time, significant amounts of dust or material are determined by the monitoring biologist to be affecting conserved habitat, then corrective measures must be taken immediately.

BIO-9 Lighting - Night lighting shall be prohibited during the course of construction, unless absolutely necessary for safety and protection of property. If necessary, the lights must be shielded to minimize impacts to the surrounding habitat.

Species-Specific Measures to Avoid/Minimize Impacts

BIO-10 Habitat Assessment - The City of Colton and USFWS have already spent considerable time and money inventorying the suitability of DSF habitat within the CHCCSP project area boundaries. This information provided the basis for the Incidental Take analysis, as well as the proposed conservation measures. The following additional avoidance measures apply to the planning areas adjacent to the conservation areas. Planning areas 3, 6, 11, 14 and 18 as well as planning areas adjacent to the proposed cemetery conservation site (planning area 24) and the existing Hospital and Valley Blvd/Pepper Avenue conservation sites (planning area 23). Planning Area 14 is designated as Open Space/Park, but the intent of the Habitat Conservation Plan is that it be used as a transition area between planning areas 11 and 18 and may be left in a natural state.

a. The City of Colton will fence all conservation areas to limit access. Educational signage will be posted with information regarding the Colton Dunes natural community and DSF.
b. Permanent lighting in developed areas adjacent to DSF conservation areas/habitat will be shielded to minimize impacts to DSF and other wildlife.
c. Project applicants will be given a map clearly delineating DSF existing or proposed conservation areas in proximity to their project site.
d. Project applicants will be responsible for clearly defining their project boundaries, i.e., marking and fencing, and designating the ingress and egress routes and demonstrating to the City of Colton that no impacts will occur to existing or proposed DSF conservation areas.
e. All incidences of damage to DSF habitat not approved for development under the HCP will be reported within 24 hours to USFWS for their evaluation and recommendations for compensation, including the following:
f. Any damage or loss of 0.25 acre or more of DSF habitat within existing or proposed conservation areas by the applicant or construction crews or contractors working for the applicant will be mitigated in the Colton Dunes Conservation Bank at a 5:1 ratio with the minimum compensation being 1-acre.
g. Additionally, all damaged DSF habitat will be fully restored at the applicant's expense. A restoration plan will be developed for the review and approval of the City of Colton and the Service. It will include the following measures:
h. Berms or excavations created by equipment will be removed restoring the natural

contour of the site. To the extent possible, displaced topsoil and native vegetation (even if crushed) will be placed back in the area of the disturbance.

i. Native seed will be collected from the surrounding area and seeded into the site after the top soil and grubbed vegetation is placed on the site of the disturbance.
j. Weeds will be hand pulled or treated with an approved herbicide for two years in the growing season following the restoration.
k. Performance standards will be developed for the restoration and the site will be monitored by a biologist for a specified period to determine if they have been met.
l. Remediation actions will be specified in the restoration plan and taken in the event the performance standards are not met within the specified period.

Monitoring and Management

BIO-11 The City of Colton is committed to the permanent protection and management of both the existing and proposed conservation areas in the HCP area. To achieve this maintenance, management and restoration of new conservation areas will be provided by the Riverside Land Conservancy (RLC) either separately or in concert with its management responsibilities for Colton Dune Conservation Bank located south of the I-10 Freeway, as defined below. In addition, the following restoration/enhancement efforts will be initiated at the proposed conservation site and fully documented in a Habitat Management Plan (HMP). The HMP shall include the preparation and submittal of an annual implementation report through year five (5) of the management program; then every three (3) years thereafter. Additional focused surveys will be conducted for DSF and other potentially occurring species by a qualified biologist at year three (3) and every three (3) years thereafter.

BIO-12 Rough Step Process - The City of Colton recognizes that it is required to ensure that progress towards assembling the 63.7-acre conservation area stays ahead of the total impacts allowed under the permit. These acres are located in planning areas 3, 6, 11 and 18. To ensure that this occurs, the City will acquire land, place a conservation easement over it and fund all management and monitoring during the first five (5) years and will include the management and monitoring costs in the City's annual budget process before grading permits are issued by the City to private developers or City Departments allowing ground disturbing activities to occur. Land will be acquired according to the following jump-start guideline and stay-ahead provision.

Jump-Start Guideline. The City of Colton will either acquire the King-is-Coming site, 20.9 acres of occupied DSF habitat adjacent to the existing 4.5 acre Laing conservation site, or the 19.5 acres of occupied DSF habitat along San Bernardino Avenue West of the land bridge. Development within the HCP area will focus on the lower quality DSF

habitat areas with the exception of high quality DSF habitat identified for development in the HCP adjacent to the King-is-Coming site and bordering Pepper Avenue. Those areas will be allowed to develop immediately upon issuance of the incidental take permit for the HCP, signature of the implementing agreement, and acquisition and recording of a conservation easement on the first 20 acres of DSF habitat, as defined above.

Stay-Ahead Provision. During the first year after permit issuance, the City of Colton will be establishing its HCP management structure, collecting initial HCP fees, and actively pursuing land acquisition deals beyond the original 20.9-acre commitment as part of the Jump-Start requirement. To allow the City time for these start-up tasks to occur, the Stay-Ahead Provision will only apply after one (1) year of Plan implementation. After one (1) year, the City of Colton will need to demonstrate that its compliance with the Stay-Ahead Provision by the following methodology:

The amount of DSF habitat acquired for conservation will exceed by 5 percent the amount of DSF habitat allowed to be developed. The HCP provides a listing of all parcels identified for development, current site conditions (developed vs. undeveloped), the type and acres of DSF habitat remaining on undeveloped portions of the parcel and conservation value of the identified DSF habitat. The amount of DSF habitat conserved and acquired will be measured both by number of acres of the habitat conserved or permitted for development multiplied by the following ratios based on quality of the habitat:

High Quality Habitat 1.15

Medium Quality Habitat 1.00

Low Quality Habitat 0.25

Thus, development or conservation of 5 acres of high quality DSF habitat will be recorded as 5.75 conservation debits or 5.75 conservation credits, respectively. The total accumulation of credits must exceed total debits at all times by at least 10 percent.

Burrowing Owls

BIO-13 The following measures shall be implemented for burrowing owls:

- Pre-construction surveys for burrowing owl shall be conducted for individual projects proposed within the CHCCSP project area and if present the owls shall be passively re-located from the project site. The pre-construction survey for burrowing owls shall be conducted within 30 days of any ground disturbance activity

of any project site in the project area.

- No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 - January 31) or within 75 meters during the breeding season (February 1 - August 31). Onsite passive relocation shall be implemented if avoidance requirements cannot be met. Offsite mitigation may be required if implementation of the project will result in less than 6.5 acres per bird or pair and such a plan must be approved by CDFW.

- Where applicable, seven days prior to the onset of construction activities for individual projects, a qualified biologist shall survey within the limits of project disturbance for the presence of any active raptor nests. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW.

BIO-14 The following measures shall be implemented for other avian species:

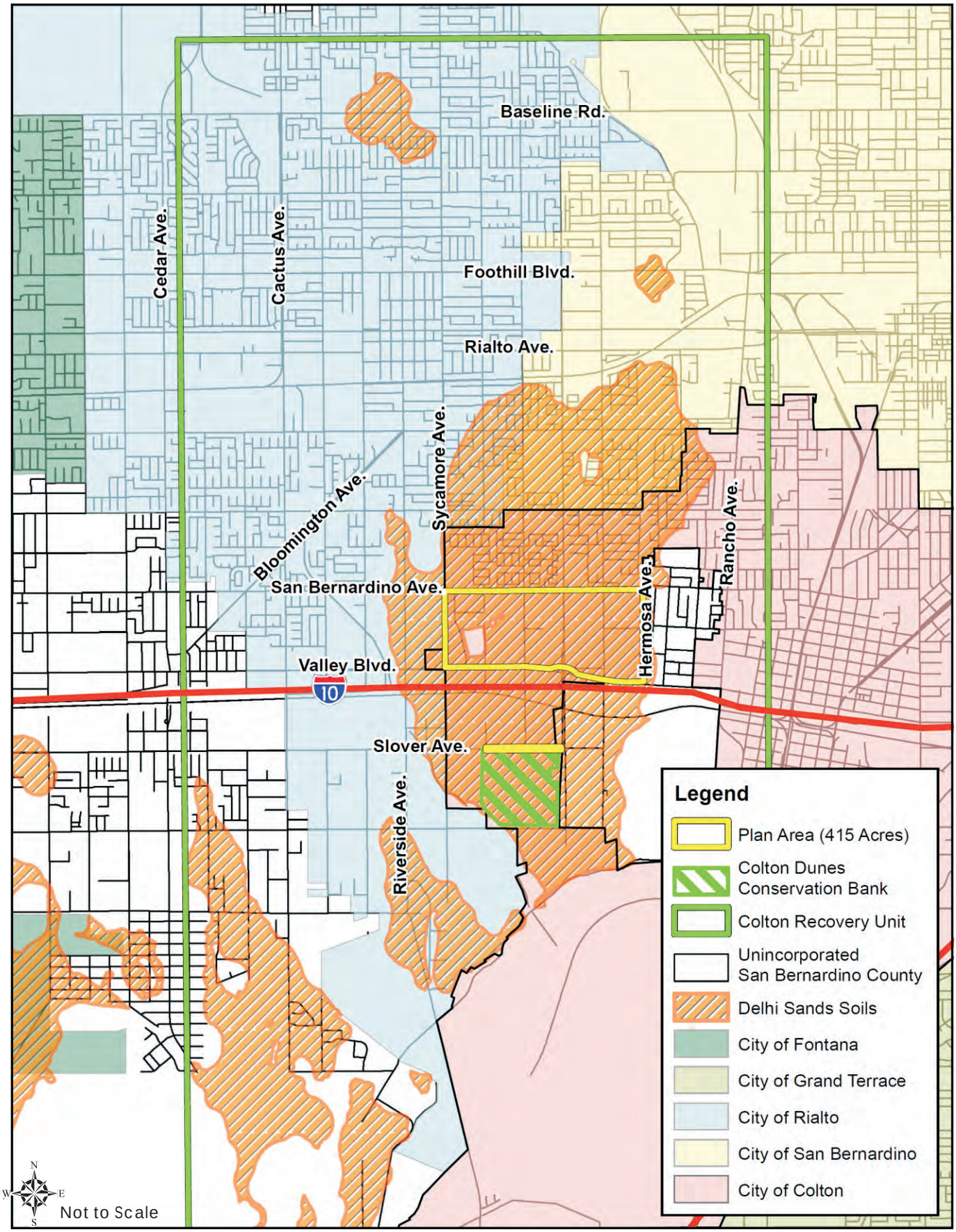
- Vegetation removal, clearing, and grading on development sites shall be performed outside of the avian breeding and nesting season (between February 1 and June 30), when feasible, to minimize the effects of these activities on breeding activities of migratory birds and other species. If clearing occurs during breeding season, a 30-day clearance survey for nesting birds shall be conducted. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFG. If nesting activity is present at any nest site, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code.

- If nesting activity is present at any raptor nest site, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region of the project site normally occurs from February 1 to June 30. To protect any nest site, the following restrictions on construction are required between February 1 and June 30 (or until nests are no longer active as determined by a qualified biologist): (1) clearing limits shall be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying shall not be allowed within 200 feet of any occupied nest. Any encroachment into the 300/200-foot buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the nesting season can occur only at the sites if a qualified biologist has determined that fledglings have left the nest.

4.4.3.5 Level of Significance After Mitigation

According to established protocol, the USFWS must approve the HCP prior to any project related construction activities in the CHCCSP project area. The HCP prepared for the Delhi Sands Flower-Loving Fly forms the basis for USFWS to issuance an incidental take permit. The issuance of the permit will allow the City to implement the CHCCSP to allow the development of a mix of land uses (covered activities) within the project area while setting aside land for conservation of DSF habitat. Therefore, impacts to the DSF and other listed species that may inhabit the project area would be less than significant when conservation strategies and mitigation measures are implemented.

CDFW also enforces the CESA and the USFWS enforces the FESA. Both agencies require permitting for "take" of an endangered species. Development of Covered Activities within the CHCCSP project area would be subject to restrictions of the West Valley HCP, including restoration of habitat in conservation areas, offsite mitigation, and/or proposed mitigation fees that will be imposed on developers. These and other measures are set forth under Impact BIO-1, mitigation measures BIO-1 through BIO-14.



Source: RBF Consulting, 2012

The Altum Group

Delhi Sands Soils
CHCCSP Environmental Impact Report

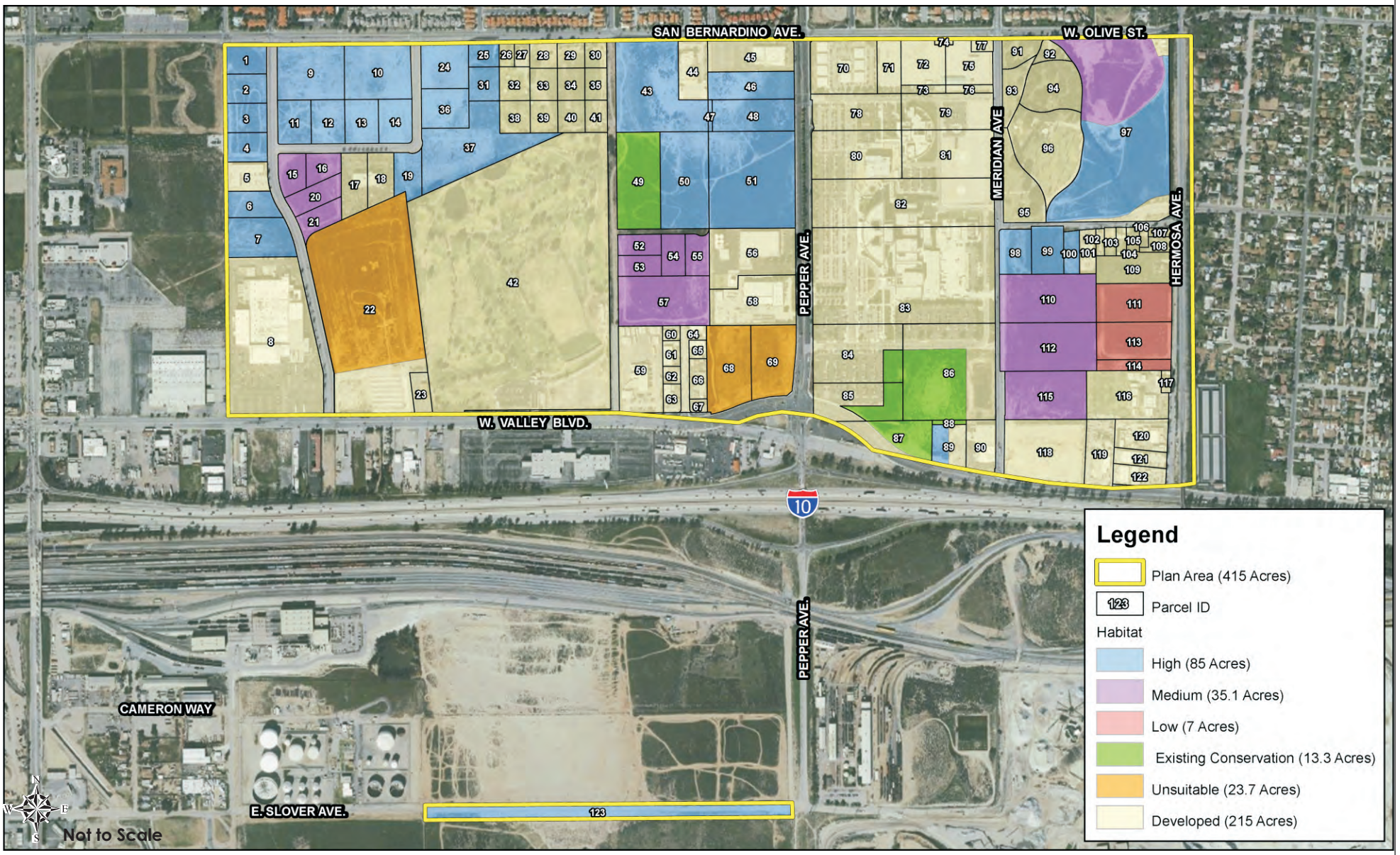
Exhibit 4.4-1



The Altum Group

West Valley HCP and CHCCSP Area Boundaries
CHCCSP Environmental Impact Report

Exhibit 4.4-2

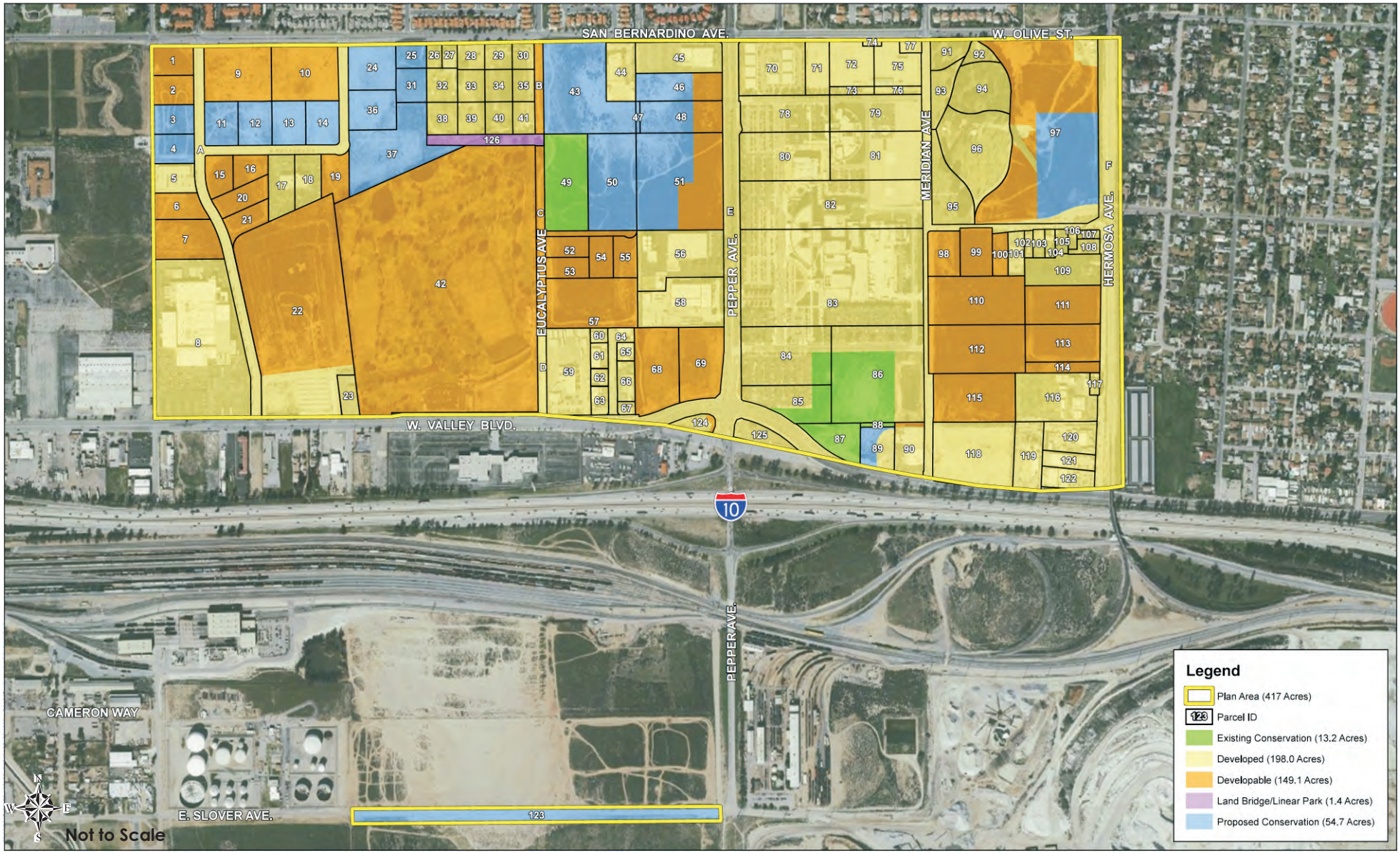


Source: RBF Consulting, 2012

The Altum Group

Habitat Quality
CHCCSP Environmental Impact Report

Exhibit 4.4-3

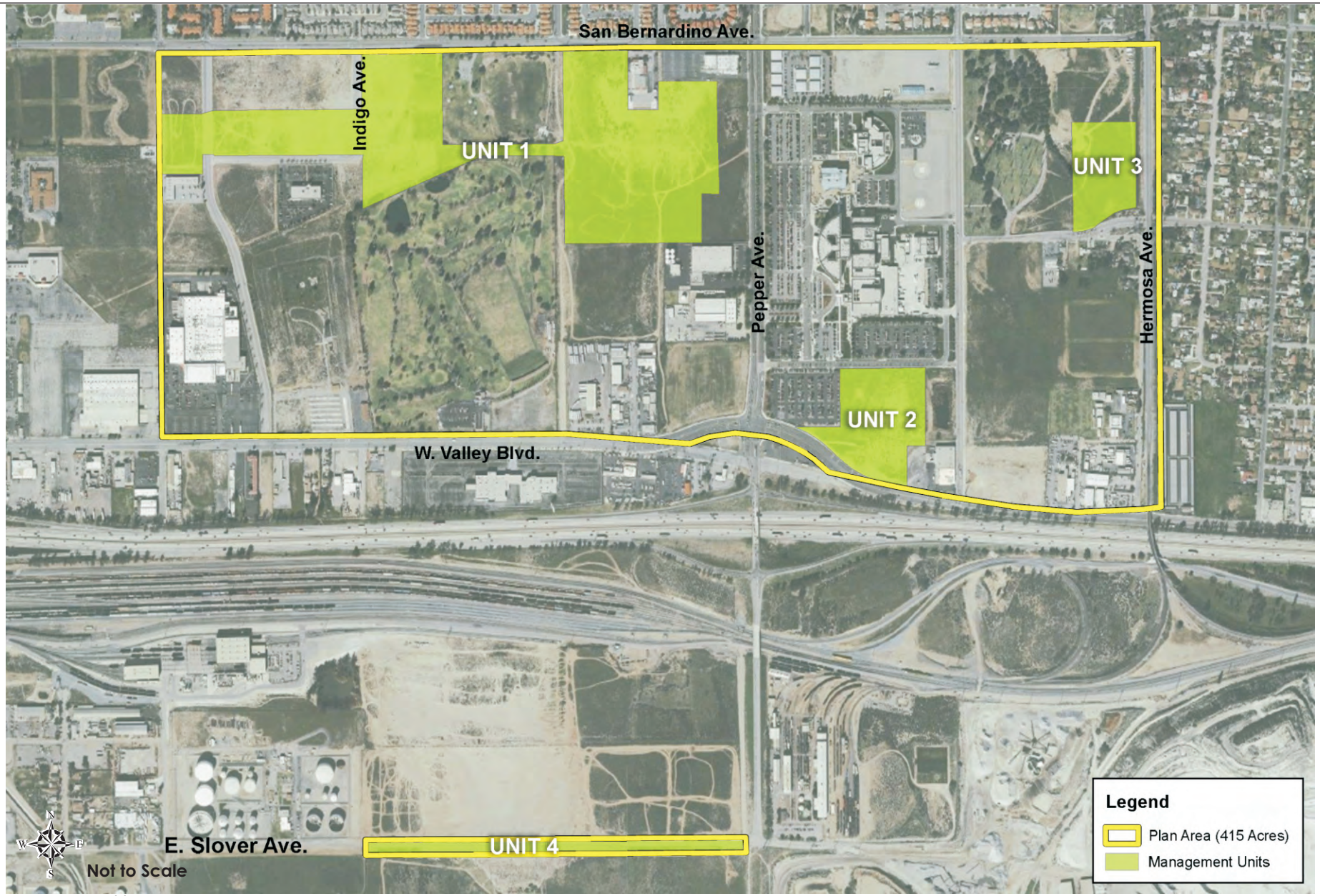


Source: RBF Consulting, 2012

The Altum Group

Existing and Proposed DSF Conservation Areas
CHCCSP Environmental Impact Report

Exhibit 4.4-4



Source: RBF Consulting, 2012

The Altum Group

Preserve Management Units
CHCCSP Environmental Impact Report

Exhibit 4.4-5

4.5.1 Introduction

This section describes the existing cultural resources and potential effects that may result from the future projects that would be developed in the CHCCSP project area. Descriptions and analysis in this section are based on information contained in the *Cultural Resources Assessment Habitat Conservation Plan for the Federally Endangered Delhi Sands Flower-Loving Fly City of Colton, San Bernardino County, California*, prepared by Atkins, January 2013. Incorporated by reference in the Cultural Resources Assessment is the literature review conducted by Michael Brandman Associates for the 2008 Draft EIR. The Cultural Resources report prepared by Atkins included field surveys of undeveloped properties in the project area that could be developed with urban uses under a federally approved Incidental Take Permit issued by the US Fish and Wildlife Service, or properties that would be held in conservation for preservation of the Delhi Sands Flower-loving Fly. Undeveloped properties in the project area consist of approximately 155 acres of the 373-acre project area. The remaining 123 acres are already developed with urban uses and/or open space uses (golf course and park). The reports are included in Appendix E.

4.5.2 Environmental Setting

4.5.2.1 Regulatory Framework

Because the CHCCSP project area includes habitat for a federally listed species and the City is consulting with US Fish and Wildlife Service (USFWS) on an HCP and Incidental Take Permit, the agency is required to consider the effects of these actions on historic properties under Section 106 of the National Historic Preservation Act (NHPA). USFWS is responsible for initiating the NHPA Section 106 review and completing the steps in the process that are outlined in the regulations. USFWS must determine if Section 106 applies to a given project and, if so, initiate review in consultation with the State Historic Preservation Officer (SHPO). Furthermore, Section 106 requires that any federal or federally assisted undertaking, or any undertaking requiring federal licensing or permitting, consider the effect of the action on historic properties, defined as cultural resources listed in or eligible for the National Register of Historic Places (NRHP).

Although the Cultural Resources Assessment was prepared in support of a Federal action (incidental take permit), information and findings contained in the report may be used to evaluate the potential effects on Cultural Resources associated with development of future projects within the CHCCSP project area.

In addition, the CHCCSP is subject to CEQA review and this section also describes the State-level criteria used to evaluate the significance of potential impacts to cultural resources in the

CHCCSP project area. Under CEQA, an impact would be considered significant if it would affect a resource listed in or eligible for listing in the California Register of Historical Resources (CRHR), or if it is identified as a unique archaeological resource.

CEQA Guidelines Section 15064.5 provides definitions to determine the significance of impacts to archeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CRHR (Public Resources Code [PRC] Section 5024.1; Title 14 California Code of Regulations [CCR], Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the PRC Section 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing on the CRHR (PRC Section 5024.1; Title 14 CCR Section 4852) including the following:
    a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    b. Is associated with the lives of persons important in our past;
    c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; and
    d. Has yielded, or may be likely to yield, information important in prehistory or history.

Typically, archaeological sites exhibiting significant features qualify for the CRHR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CRHR;
- Not included in a local register of historical resources pursuant to PRC Section 5020.1(k); and
- Identified in a historical resources survey per PRC Section 5024.1(g).

Cultural Resources

Potentially significant cultural resources consist of, but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historical resources as defined under the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. In the event that buried cultural resources are discovered during construction, operations must stop in the immediate vicinity of the find and a qualified archaeologist must be consulted to determine whether the resource requires further study. The qualified archeologist must make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.

No further grading can occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation must be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

In addition, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property must be taken and the State Historic Preservation Officer (SHPO) and Native American tribes with concerns about the property, as well as the Advisory Council on Historic Preservation (ACHP) will be notified within 48 hours in compliance with 36 CFR 800.13(b)(3).

Accidental Discovery of Human Remains

There is always the small possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC Section 5097.98.

Paleontological Resources

Paleontological sites in California are protected by PRC Section 5097.5 and the California Administrative Code, Sections 4306 and 4309. These Codes establish authority to protect paleontological resources and allow for mitigation through the permitting process. CEQA combines archaeological and paleontological resources into a single category for compliance purposes; however, there is a difference between the two types of resources. Archaeological and historical resources are the result of the action of individual persons or cultural groups, while paleontological resources result from the fossilization of items, such as:

- Animal bones, including fossilized human bones;
- Shells;
- Casts; and
- Tracks.

City of Colton Historic Preservation Ordinance

The City of Colton has a Historic Preservation Ordinance codified in the City's Municipal Code, Chapter 15.40 Historic Preservation. The City also has designated four districts within the City that are historic and has a list of properties that have been designated as historic landmarks. Most of these landmarks are located within the historic core of the City on and around La Cadena Drive, and in south Colton, south of the I-10 Freeway. The nearest historic landmark to the CHCCSP project area is the Hermosa Gardens Cemetery, adjacent to planning areas 21 and 24, which has been in existence since 1888.

The CHCCSP project area is not within an historic district and does not currently contain any designated historic landmarks.

4.5.2.2 Methodology

The Cultural Resources Assessment built upon the previous assessment for the project in 2008 - consisting of a literature search of archival records at the San Bernardino County Museum - by including a rigorous pedestrian field survey performed throughout the project area that was not included in the 2008 assessment. The field survey focused on vacant or underutilized land and did not include properties that are developed. The rationale for this decision was that although the CHCCSP focuses on the development of the project area, the redevelopment of currently developed properties was not assumed as it is too speculative at this time. The 2013 CRA assessment included the following task methods:

- Establishment of the Area of Potential Effect (APE) for the proposed project.

- Review of regional history and previous cultural resource sites and studies within the APE and the vicinity.
- Examination of archival maps and aerial photographs for the APE and the general vicinity.
- Request of an NAHC Sacred Lands File (SLF) record search, and contact with Tribal groups and individuals as named by the NAHC.
- Conduct a pedestrian survey of the APE.
- Completion and submittal of DPR 523 Forms and updates for resources, as appropriate.
- Evaluate the potential for the proposed project to affect cultural resources, including Historic Properties.
- Develop recommendations associated with impacts to existing cultural resources following federal and State guidelines.

Records Search

The 2013 CRA included a record search to update the 2008 record search and to determine if any cultural resources have been recorded in the vicinity of or within the Area of Potential Effect (APE), and whether known resources would be or could be affected by development in the CHCCSP project area. The APE is identified in *Exhibit 4.5-1 CHCCSP Area of Potential Effect*. A records search was performed at the Archeological Information Center (AIC) located at the San Bernardino County Museum in Redlands. The AIC is the California Historical Resources Information System (CHRIS) historical resource data repository for San Bernardino County. The records search included reviews of archival maps and examinations of current inventories, including:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- California Historical Landmarks (CHL)
- California Points of Historical Interest (CPHI)
- California State Historic Resources Inventory (HRI)
- Native American Heritage Commission (NAHC) Records Search

A Sacred Lands File (SLF) database search request was sent to the NAHC to determine whether any properties of traditional cultural value have been recorded within the APE or in the general vicinity. NAHC indicated that there were no resources recorded within the APE or within a 0.5 mile of the project area. NAHC also noted that the SLF database was not exhaustive and provided a listing of Native American contacts. Information about the project and project area was sent to Tribal groups and individuals named by the NAHC and follow-up phone calls were placed to all of the Native American contacts to elicit input on the presence or absence of resources within the APE. All responses received were documented and are provided in the

Cultural Resources Assessment (Appendix E). No additional information was provided by these resources.

Indigenous Native American Presence

Colton is located in an ethnographic transitional region, and is situated near the borders of the traditional use areas of the Gabrielino/Tongva, Serrano and Cahuilla groups. The project area is found in the eastern-most portion of the Gabrielino/Tongva tribal territory, which is mapped as extending north from Aliso Creek in Orange County to just beyond Topanga Canyon along the Pacific Coast in Los Angeles County, and inland to the City of San Bernardino. The Serrano traditional use is mapped as encompassing the San Bernardino Mountains from the Cajon Pass in the west to beyond modern Twentynine Palms in the east, and from about Victorville in the north to near the San Gorgonio Pass in the south. The project area is also located adjacent to the northwestern-most portion of documented Cahuilla territory, mapped as extending just beyond the City of Riverside. Tribal boundaries were likely very fluid in this area, allowing for the exchange of ideas and technology among these groups.

Gabrielino/Tongva

The Tongva, historically known as the Gabrielino and also referred to as the Gabrielino/Tongva, were one of the most influential and powerful Native American groups in southern California. They once inhabited a large area that included present-day Los Angeles and the surrounding region with estimated populations numbering in the thousands. The Tongva spoke a language that belongs to the Cupan group of the Takic subfamily of the Uta-Aztecan language family (a language family that includes the Shoshonean groups of the Great Basin), and can be divided into the Coastal and Inland Tongva. The Inland Tongva lived in primary villages occupied year-round, supplemented by seasonal gathering camps in thatched, domed, circular structures. Other structures included sweathouses and ceremonial structures. The Inland Tongva subsistence economy included a variety of plants and animals, including deer, pinon nuts, and acorns. Acorns were used as trade items for marine resources acquired by coastal groups and other goods, such as obsidian, offered by desert groups.

The first modern social analyses of Tongva culture took place in the early part of the twentieth century, and early ethnographers viewed the Gabrielino as a chief-oriented society of semi-sedentary hunter-gatherers (Kroeber 1925). Influenced by coastal and interior environmental settings, their material culture was quite elaborate and consisted of well-made utilitarian and ceremonial items, bedrock and portable mortars, milling slabs, handstones, a variety of wooden, bone, and shell tools, flaked stone artifacts, coiled and twined baskets, and elaborately decorated steatite items.

The Serrano

The Serrano traditional use area is mapped as encompassing the San Bernardino Mountains from the Cajon Pass in the west to beyond modern Twentynine Palms in the east, and from about Victorville in the north to near the San Gorgonio Pass in the south. However, these borders are ill defined, due to a lack of reliable data and to the Serrano sociopolitical organization. The Serrano were organized into autonomous lineages occupying defined territories; however, these groups rarely identified a permanent habitation site. These groups were neither politically aligned, nor were they socially connected outside of each localized lineage. For these reasons, the borders of the arbitrarily grouped Serrano peoples would vary greatly from lineage to lineage, depending upon their respective worldviews.

Studies on linguistic characteristics have indicated that the term Serrano had been academically applied to four different groups, including the Serrano, Kitanemuk, Vanyume, and the Tataviam (AIIiklik). The Vanyume use area has been mapped to the north of Victorville, extending from the Cajon Pass in the west, to near modern Ludlow between the Cady and Bristol Mountains. The Kitanemuk and Tataviam are found within the general vicinity of the Tehachapi Mountains. The Serrano generally spoke a language that also belongs to the Cupan group of the Takic subfamily of the Uta-Aztecan language family, a language family that includes the Shoshonean groups of the Great Basin. The total Serrano population at contact was roughly 2,000 persons. The range of this group was limited and restricted by reliable water sources.

Typically, a "village" consisted of a collection of families centered about a ceremonial house, with individual families inhabiting willow-framed huts with tule thatching. Considered hunter-gatherers, the Serrano exhibited a sophisticated technology devoted to hunting small animals and gathering roots, tubers, and seeds of various kinds.

The Cahuilla

The Cahuilla belong to the Shoshonean linguistic family and have had definitive historical relationships with the Hopi of Arizona, the Gabrielino, and Diguefio of the southern Californian coast and the Luisefio of Riverside County, as well as other desert tribes such as the Kamia, Chemehuevi, Paiute, and Serrano. The Cahuilla population prior to Spanish contact could have been as numerous as 6,000 persons, in an area encompassing more than 2,400 square miles.

The Cahuilla villages were determined according to their proximity to a defined water source and access to a food-gathering locale. Village sites were usually located near alluvial fans, streams or at the base of mountains for protection against the winds. The Cahuilla can be discussed according to their primary village locality: Desert Cahuilla, Mountain Cahuilla, and Pass Cahuilla, while other Desert Cahuilla settlements were located around hand dug wells and

watering holes. Typically, one clan or family occupied several food-gathering locations and guarded these areas against other Cahuilla clans.

Cahuilla homes were generally constructed with forked posts, which supported wood ceiling beams. These structures were then completely covered in thatch, which was slightly mixed with sand or soil. In some cases, the floor was slightly subterranean and each house was positioned so that a level of privacy was attained. Cahuilla homes were generally hidden in mesquite groves which effectively obscured them from plain view.

Historic Background

Spanish Period

In the Spanish Period (1769 to 1821), the area that was to become Colton was part of the larger Mission San Gabriel rancho system. The Mission, established in 1771, began establishing ranchos to expand its agricultural holdings. The Colton area and vicinity was affiliated with Rancho San Bernardino.

Mexican Period

In the Mexican Period (1821to 1848) former mission lands were secularized and subdivided into land grants. Antonio Maria Lugo and Juan Bandini established the Rancho San Bernardino and the Rancho Jurupa under the land grant system in the 1830s on 37,000 acres and 30,000 acres, respectively. Lugo and Bandini then persuaded a group of settlers from New Mexico to buy small plots of land on the Upper Santa Ana River, establishing a buffer against criminals along the trade route from Santa Fe to Los Angeles. In 1842, the New Mexico immigrants gathered at Politana. A portion of these families, led by Lorenzo Trujillo, moved to the most northeasterly portion of Rancho Jurupa on the east bank of the Santa Ana River. This new village was eventually named La Placita. Later, a group moved to the west side of the river at Agua Mansa. The land was deemed more suitable for farming and grazing and soon farmsteads were cordoned off, an irrigation system was excavated, and fields of grapes, grain, and vegetables, as well as fruit trees, were planted. The mesa, located to the southeast of the area of potential effect (APE) and near present-day Riverside, proved sufficient pasture land for horses, sheep, and cattle. By 1845, the communities on both sides of the river were thriving. During this period of rancho land grants, Mexico's hold on California was threatened by the steady overland migration of American settlers into the region. War between the U.S. and Mexico commenced in May 1846, and the Mexican Period ended in 1848, at the end of the Mexican-American War.

American Period

The American Period began in 1848 when Mexico ceded California to the U.S. under the Treaty of Guadalupe Hidalgo. Mexican ranchos were subdivided or sold during this period, and much of the land that once constituted rancho holdings became available for settlement by immigrants to California. In 1851, nearly 500 Mormons arrived in the valley. After purchasing 35,000 acres of the San Bernardino Rancho, the Mormon settlers built a stockade around the rancho and named it Fort San Bernardino. The immigrants established an irrigation system and farmlands outside of the fort. When Brigham Young recalled the Mormons to Salt Lake City in 1857, their lands were purchased by homesteaders and farmers.

A flood struck the community of Agua Mansa in 1862 when the Santa Ana River breeched its banks; only the cemetery, the chapel and an adjoining store were spared. Across the river and to the north, the community of La Placita was also impacted. The small farming community was reconstructed, but failed to reestablish its viability. With the exception of the growth of the citrus industry, primarily agrarian life was replaced by the railroad, and rise of the cement industry. The inhabitants of La Placita and Agua Mansa abandoned these communities for opportunities elsewhere. La Placita remained a community of Riverside until 1926 while the last burial at Agua Mansa occurred in 1963.

By the end of the nineteenth century, railway companies extended their alignments into the area. In 1875, the Southern Pacific Railway was constructed across the San Bernardino valley heading eastward from Los Angeles, and the town site of Colton was laid out. That same year the town was named after David Colton in honor of the Civil War general and the railroad's Vice President. Access to the railroad ensured economic opportunity and financial growth, as agricultural crops and other goods could be imported and exported. This was especially important to the development of the San Bernardino valley. The ability to transfer citrus by way of the railroad led to an economic and population explosion, resulting in the commercialization of citrus production in the region. Citri-culture was integral to the development of the region.

Colton was incorporated July 11, 1887 after 119 of the 176 citizens voted for incorporation. Currently, Colton is the location of one of the busiest at-grade railroad crossings in the United States. Known as Colton Crossing, the area is also the location of the crossing point of the main transcontinental trunk lines of the Union Pacific and Bulington Northern Santa Fe railroads.

Review of Aerial Photograph

Table 4.5-1, *Aerial Photograph Survey*, is a summary of data collected for the Phase I Environmental Site Assessment (ESA) conducted in 2008 and updated in 2013 in the Environmental Date Research (EDR) Report (Appendix G).

Table 4.5-1: Aerial Photograph Summary

Year	Description
1930	Project site predominantly consisting of open fields used for grazing. Orchard farming visible along the eastern side of Hermosa Road.
1938	Dirt roads and trails appear crossing through project site boundaries with orchard farming along the eastern side of Riverside Avenue.
1953	Morrow Air Field is present with additional dirt roads and trails appearing inside project boundaries. Interstate 10 (under construction) is shown. Several industrial/commercial use structures appear on the south side of Valley Boulevard between Riverside Avenue and Pepper Road. Orchards to the eastern side of Hermosa Avenue have been replaced by a new housing development. Orchard farming abutting the eastern side of Riverside Avenue has been replaced by new homes.
1966	Colton Golf Club and Colton Recreational Lake appear with new industrial warehouse building constructed on the southwestern side of Morrow Air Field. Additional building structures with pad clearing, predominantly replaces open fields on the south side of Valley Boulevard between Pepper Avenue and Riverside Avenue. Orchards abutting Riverside Avenue are gone, and the orchards east of Hermosa Avenue are replaced by homes.
1978	Colton Recreational Lake is gone. More industrial/commercial development in-fill is seen on the southern side of Valley Boulevard between Pepper Avenue and Riverside Boulevard. Two new industrial/commercial buildings appear on the west side of Pepper Avenue between Valley Boulevard and San Bernardino Avenue. San Bernardino Avenue is a dirt road connector between Riverside Avenue and Pepper Avenue.
1989	Open Space land located on the north side of San Bernardino Avenue (now paved) is replaced with a tract home development between Riverside Avenue and Pepper Avenue. A New Industrial/Commercial building (Price Club) appears on the west side of Wildrose Avenue within the project site boundary. Morrow Field is gone.
1995	Arrowhead Regional Medical Center under construction. Colton Golf Club still existing.
2002	Arrowhead Regional Medical Center is operational with a new tract home development located directly north of the medical center. Additional warehouse space is added to the old Price Club building on west side of Wildrose Avenue.
2012	Valley Boulevard is relocated northward at the point of intersection with Pepper Avenue at approximately 242 feet north from its previous intersection that is now vacated. This new intersection now abuts the northeastern corner of ARMC's parking lot.

Source: Petra Geotechnical (2008a), Environmental Data Resources Inc. (2013), Google Earth. (June 2013).

These documents included a review of aerial photographs of the project area to determine if past land uses may have resulted in release of hazardous materials but the land use is no longer there. Aerial photographs dating back to 1930 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Section 4.8 Hazards and Hazardous Materials.

Historical Analysis

The results of the records search indicated that two formally recorded resources are located within the APE, including a historic age power transmission line ROW (36-013627/CA-SBR-12613H) and one isolated resource (36-060,239). In addition, two pending resources are located within the APE (P-1074-4 and P-1074-5). Pending resources are unique to the AIC and reflect the location of resources based upon oral histories, textual sources or incomplete site record data. Including these four resources, a total of 23 cultural resources have been recorded within the APE and the one mile search radius. These resources and their locations in regards to the APE are summarized in Table 4.4-2, Cultural Resources in CHCC Project Area and Vicinity. In addition, all known and previously recorded resources located within 0.25 mile of the APE are shown in relation to the APE boundary.

Table 4.5-2: Cultural Resources in CHCCSP Project Area and Vicinity

Site Number	Resource Description	Within~1- to 0.5 mile Radius	Within ~0.5- to 0.25-mile Radius	Within ~0.25-mile Radius	Within APE?
P36-0690,236	Prehistoric – isolated find described as a typical arrow point.	–	–	●	No
P36-060,239	Prehistoric – Isolated find described as a smooth pebble, which is possibly a mano.	–	–	●	Yes. However, this resource was not relocated during the present study.
P36-060,240	Prehistoric – Isolated find consisting of a chalcedony, desert side – notched point. The isolate is plotted on the AIC base maps as within the APE; however, the site record location map depicts this resource beyond the APE boundary.	–	–	●	No
P36-060,241	Prehistoric – Isolated find consisting of a ceramic sherd. The isolate is plotted on the AIC base maps as within the APE; however, the site record location map depicts this resource beyond the APE boundary.	–	–	●	No
P36-060,253	Historic age- Isolated find consisting of a fragment of solarized glass.	–	●	–	No
	Prehistoric – Site consisting of several artifact concentrations within dune ridges on two terraces overlooking the Santa Ana River floodplain.	●	–	–	No

Table 4.5-2: Cultural Resources in CHCCSP Project Area and Vicinity (continued)

Site Number	Resource Description	Within~1- to 0.5 mile Radius	Within ~0.5- to 0.25-mile Radius	Within ~0.2 5-mile Radius	Within APE?
CA-SBR-1576	This site was subjected to a subsurface testing program in 1988 and was found to be a Late Prehistoric habitation site. No cultural deposits were encountered and the site was found to exhibit a depth of 20 centimeters. Due to a lack of subsurface deposits, extensive Off Highway Vehicle disturbance, and artifact collection over time, the site was deemed to lack integrity and was recommended as ineligible for inclusion in the NRHP. In addition, the site was described as not important pursuant to CEQA. A 1994 site visit encountered artifacts within a portion of the recorded site boundaries.				
CA-SBR-1572	Prehistoric – This resource is described as charcoal pits located five to eight feet below present surface. The pits were destroyed due to gravel quarrying operations.	●	–	–	No
CA-SBR-1579	Prehistoric – This resource is described as projectile points and flakes	●	–	–	No
CA-SBR-7976H/CPHI-SBR-018	Historic age – The remnants of the California Portland Cement Plant, known as Mill A. The resource is considered a CPHI (SBR-018) in association with CA-SBR-4314H (Slover Mountain).	●	●	–	No
CA-SBR-6007H	Prehistoric and Historic age – Dual-component site containing seven ceramic sherds of Tizon Brown ware, historic faunal remains of saw cut sheep and cattle bones, and glass.	●	–	–	No
CA-SBR-4314H/CPHI-SBR-018	Historic age – This resource is Slover Mountain. This landmark was used as a point of origin for laying out the boundaries for the Lugo family's Rancho San Bernardino. The hill is considered a CPHI (SBR-018) in association with CA-SBR-7976H (Mill A of the California Portland Cement Plant).	●	●	–	No
CA-SBR-7047H	Historic age - This resource consists of two stone and mortar walls and a scatter of glass and ceramics	●	–	–	No

Table 4.5-2: Cultural Resources in CHCCSP Project Area and Vicinity (continued)

Site Number	Resource Description	Within~1- to 0.5 mile Radius	Within ~0.5- to 0.25-mile Radius	Within ~0.2 5-mile Radius	Within APE?
P36-021603	Historic age – This resource is an actively used storage tank facility built between 1955 and 1966 and modified between 1968 and 1980. The resource was recommended as ineligible for inclusion in the NRHP and the CRHR.	●	●	●	No
P36 – 021326/CA-SBR-13700H	Historic age – This resource consists of the 78 mile Colton-Palmdale Cutoff traversed by the Union Pacific Railroad. A small portion of this linear resource located beyond the records search radius was recommended as ineligible for inclusion in the NRHP and the CRHR.	●	●	●	No
P36-020676	Historic age – A single family dwelling originally associated with poultry and citrus farming in the 1930's. This resource was recommended as ineligible for inclusion in the NRHP, CRHR, and local registers.	●	–	–	No
P36-013627/CA-SBR-12613H	Historic age – This resource is an electric power transmission line ROW, including towers and a substation that emanate from an historic substation located in San Bernardino. The power transmission line was recommended as not significant pursuant to CEQA due to a lack of integrity. However, the substation/switching yard located near the corner of Chestnut and Mill in San Bernardino was recommended as significant. This building is located beyond the records search radius.	●	●	●	Yes. This resource was observed within the APE during the current study.
P-1074-4	Prehistoric – Pending resource comprised of scattered lithic debitage fashioned from chert.	–	–	–	Yes. However, this pending resource was not relocated during the present study.
P-1074-5	Prehistoric – Pending resource consisting of lithic debitage and a possible chunk of chalcedony.	–	–	–	Yes. However, this pending resource was not relocated during the present study.

Table 4.5-2: Cultural Resources in CHCCSP Project Area and Vicinity (continued)

Site Number	Resource Description	Within~1- to 0.5 mile Radius	Within ~0.5- to 0.25-mile Radius	Within ~0.2 5-mile Radius	Within APE?
P-1074-61H	Historic age – Pending resource consisting of the location of a road alignment on a Township 1 South, Range 5 West plat map dated July 20, 1856.	●	●	●	No
P-1074-68H	Historic age – Pending resource consisting of the location of the Colton Packing House and/or Union "Block, which is a historic era commercial area. Union Block was built in 1890 by Samuel Fox and Dr. W.R. Fox.	●	–	–	No
P-1074-107H	Historic age – Pending resource known as the Meeks and Daley Ditch. The ditch was constructed in 1887 and was an associated water facility of the Santa Ana River Basin.	●	–	–	No
P1074-108H	Historic age – Pending resource known as the Stockman Connecting Flume. The wooden flume was constructed in 1895 and linked the end of the Meeks and Daley Ditch to the North Riverside and Jurupa Canal. This Flume, along with the Parks Connection (P-1074-109H), provided water to the rancho properties west of Riverside and north of the Santa Ana River.	●	●	–	No
P1074-109H	Historic age – Pending resource known as the Park Connection. Constructed in 1892, the connection liked the Meeks and Daley Ditch to North Riverside and Jurupa Canal. This connection, along with the Stockman Flume (P-1074-108H), provided water to the rancho properties west of Riverside and north of the Santa Ana rivers.	●	–	–	No

Source: Atkins Cultural Resource Assessment, January, 2013.

Twenty-seven area-specific survey reports are on file with the AIC for the one mile search radius. As a result of these studies, approximately 60 percent of the land located within the search radius has been previously inventoried for the presence or absence of cultural resources. Six of the reports addressed various portions of the APE, indicating that 95 percent

of the APE has been previously surveyed for cultural resources and 100 percent of the APE has been addressed through literature reviews. The following details of these reports are summarized below in Table 4.5-3 *Cultural Resources Reports Within a One Mile Records Search Radius*.

Paleontological Analysis

According to an on-line review of regional geological maps (USGS Santa Ana 30' Sheet, digital version), the CHCCSP project area is located in an area in which the massive Lyle Creek alluvial fan, which is covered with a veneer of Holocene-era alluvium, is exposed at the modern ground surface level. The Holocene alluvium may overlie early Holocene or Late Pleistocene Lytle Creek alluvial fan sediments exhibiting an uncertain lithology at depth.

Pedestrian Survey

The objective of the pedestrian survey was to locate and document previously recorded or new cultural resource sites or isolates that are more than 50 years old within the APE, and to determine whether such resources will be or could be impacted by project implementation. The field survey focused on vacant or underutilized properties that were not developed with buildings or that were in active use (e.g. golf course and City Park).

Table 4.5·3: Cultural Resources Reports Within a One Mile Records Search Radius

	Report Number	Details
1	1064261	This report did not address the APE.
2	1066516	This report did not address the APE.
3	1061772	This report did not address the APE.
4	1061468	This report did not address the APE.
5	1061558	In association with report 1061635, this study addressed 100% of the APE north of the I-10 Freeway. These studies returned positive results for cultural resources within the APE, including previously recorded isolated fine 36-060,239 and Pending Resources P-1074-4 and P1074-5.
6	1061635	In association with report 1061558, this study addressed approximately 85 percent of the APE, including 100 percent of the APE located to the north of 8:10. These studies returned positive results for cultural resources within the APE, including previously recorded isolated fine 36-60,239 and Pending Resources P-1074-4 and P-1074-5 (Bixler 1987).
7	1062464	This report did not address the APE.
8	1062103	This report did not address the APE.
9	10616711	This report did not address the APE.
10	1061712	This report did not address the APE.
11	1062516	This report did not address the APE.

Table 4.5-3: Cultural Resources Reports Within a One Mile Records Search Radius (Cont'd)

	Report Number	Details
12	1062887	This report addressed a small portion of the APE located to the south of I-10 with negative results for cultural resources within the current APE (Greenwood and Associates 1994).
13	1066445	This report did not address the APE.
14	1066089	This report did not address the APE.
15	1066305	This report did not address the APE.
16	1066443	This report did not address the APE.
17	1064634	This report did not address the APE.
18	1064334	This report addressed the APE located to the south of I-10 through a records search and archival literature review. No resources were reported within the APE in association with this study (Greenwood and Associated 1997).
19	10643435	This report addressed a very small portion of the APE located to the south of Valley Boulevard and north of I-10. No resources were reported within the APE in association with this study (McKenna, et al. 1995).
20	1064244	This report addressed a small portion of the APE located immediately north of Valley Boulevard and immediately west of Pepper Avenue. No resources were reported within the APE in association with this study (McKenna, et al. 2004).
21	1062289	This report did not address the APE.
22	1062063	This report did not address the APE.
23	1061828	This report did not address the APE.
24	1061750	This report did not address the APE.
25	1061819	This report did not address the APE.
26	1061875	This report did not address the APE.
27	1063214	This report did not address the APE.

Source: MBA, Cultural Resources Letter Report, May 2008, Atkins Cultural Resource Assessment, January, 2013.

Note: The Cultural Resource Assessment was prepared for the Habitat Conservation Plan project area, which had a similar boundary as the CHCC project area with the exception of the area south of Valley Blvd, and a 5.8-acre site south of the freeway along Slover Avenue.

The pedestrian survey was conducted for the APE on November 16, 29 and 30, 2012; December 11, 2012; and January 10 and 23, 2013. During the pedestrian survey, two pending resources (P-1074-4 and P-1074-5) and two previously recorded resources (36-060,239 and 36-013627/CA-SBR-12613H) were addressed. 36-013627/CA-SBR-12613H was observed in its recorded location; however, P-1074-4, P-1074-5, and 36-060,239 could not be relocated. In addition, while no new prehistoric resources were detected; three previously undocumented historic age resources were recorded (HCP-001, HCP-002 and HCP-003). HCP-001 consists of a historic age power transmission line ROW depicted on archival topographic maps dating to

1942. Colton Recreational Lake was recorded as HCP-002, and this resource includes the remains of structures, features, and ornamental vegetation aged at least 47 years. HCP-003 is ornamental vegetation associated with the Hermosa Gardens Cemetery and present since at least 1930 (located outside the CHCCSP project area but in the West Valley HCP area). Department of Parks and Recreation (DPR) 523 Forms were prepared for all resources known within the APE were submitted to AIC at the San Bernardino County Museum.

4.5.3 Environmental Impacts and Mitigation Measures

4.5.3.1 - Thresholds of Significance

As discussed in Section 4.5.2.1, CEQA Guidelines Section 15064.5 provides definitions to determine the significance of impacts to archeological and historical resources. In addition to those definitions, the CEQA Guidelines Appendix G, Environmental Checklist, includes the following questions to use in determining whether impacts to cultural resources represent significant environmental effects:

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in the CEQA Guidelines Section 15064.5?
b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?
c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

4.5.3.2 Impact Analysis

In addition to the CEQA thresholds, the City of Colton has a Historic Preservation Ordinance. One of the criteria for determining the eligibility for an historic designation of a property or building is that "it contributes to the historical or scenic heritage or historical or scenic properties of the City (to include, but not be limited to, landscaping, light standards, trees, curbing and signs)".

a and b) Historical and Archaeological Resources

Records searches were conducted at the AIC in 2008 and 2012 for the purposes of identifying resources that are known to occur in the CHCCSP project area (see Table 4.5-2). The results indicated that two formally recorded resources are located within the APE, including a historic age power transmission line ROW (36-013627/CA-SBR-12613H) and one isolated resource (36-60239). In addition, two pending resources are located within the APE: 1) P-1074-4 (prehistoric

lithic scatter); and 2) P-1074-5 (historic age roads). 36-013627/CA-SBR-12613H consists of a power transmission line ROW traversing portions of Orange, Riverside and San Bernardino counties, including towers and a substation that emanate from an historic substation located in the City of San Bernardino. The 2008 assessment concluded that this power transmission line was recommended as not significant pursuant to CEQA due to a lack of integrity. Atkins Cultural Resources specialists concurred with this finding in 2013 as the majority of the original towers have been removed. Resource 36-60239 is an isolated find consisting of a possible mana; P-1074-4 is scattered lithic debitage fashioned from chert; and P-1074-5 is scattered lithic debitage potentially fashioned from chalcedony. Including these resources, a total of 23 known and previously recorded resources can be found within one mile of the CHCCSP project area. In addition, the records search showed that 27 area-specific survey reports have been conducted within one mile of the project area. As a result of these studies, approximately 60 percent of the land located within the search radius has been previously inventoried for the presence or absence of cultural resources. Six of the reports addressed various portions of the APE for the West Valley HCP which significantly overlaps the CHCCSP project area, indicating that 95 percent of the APE has been previously surveyed for cultural resources and 100 percent of the APE has been addressed through literature reviews.

During the 2012/2013 pedestrian survey, two pending resources (P-1074-4 and P-1074-5) and two previously recorded resources (36-60239 and 36-013627/CA-SBR-12613H) were addressed. Resource 36-013627/CA SBR-12613H was observed in its recorded location; however, P-1074-4, P-1074-5, and 36-60239 could not be relocated in the field. In addition, while no new prehistoric resources were detected; three previously undocumented historic age resource were recorded (HCP-001, HCP-002 and HCP-003). HCP-001 consists of a historic age power transmission line ROW shown on archival topographic maps dated to 1942. Colton Recreational Lake was recorded as HCP-002, which included the remains of structures, features, and ornamental vegetation aged at least 47 years. HCP-003 (located adjacent to the CHCCSP project area) is ornamental vegetation associated with the Hermosa Gardens Cemetery and has been present since at least 1930 based on a review of aerial photographs. DPR 523 Forms were prepared for all resources known within the APE and submitted to the AIC and assigned primary numbers for HCP-001, HCP-002 and HCP-003.

The level of impact on historic and archaeological resources is considered to be less than significant for those properties that were evaluated in the 2013 Cultural Resources Assessment which included the vacant land in the CHCCSP project area, but not any of the properties that were developed. None of the known resources within the APE, including previously recorded resources (36-060,239 and 36-013627/CA-SBR-12613H), pending resources (P-1074-4 and P-1074-5) or resources recorded during the pedestrian survey (HCP-001, HCP-002 and HCP-003) will be subject to effects as a result of the development of vacant properties. Subsequent to

the completion of the Cultural Resources Assessment (January 2013), the AIC assigned permanent numbers for the three resources recorded during the pedestrian survey as follows:

FIELD #	PRIMARY #	TRINOMIAL
HCP-001	36-025455	SBR-16173 H
HCP-002	36-025456	SBR-16174 H

As stated in the Environmental Setting section above, although the records search covered the entire APE, the field survey focused on vacant or underutilized land and did not include properties that are currently developed (see Exhibit 4.5-1). The rationale for this decision was that although the CHCCSP focuses on the development of the project area, the redevelopment of currently developed properties was not assumed as it is too speculative at this time. Therefore, should development of the properties not evaluated in the Cultural Resources Assessment be proposed in the future, site specific assessments for Cultural Resources, including historic resources will be required on a project by project basis as will the mitigation measures provided in Section 4.5.3.3 below. This will ensure that any potential impacts on historic and archaeological resources must be implemented on a project by project basis

c) Paleontological Resources or Geologic Features

The determination of significance is based upon the known fossil-bearing potential of the geologic units mapped in the project area. If a project were developed on a geologic unit known to demonstrate a moderate or high probability for yielding significant, nonrenewable fossil resources, or if the project were developed on an area with unknown probability for yielding significant, nonrenewable fossil resources, then this would be considered a potentially significant impact.

The paleontological review prepared as part of the Cultural Resources Assessment found that the project area is located primarily upon Quaternary younger fan deposits of Holocene or historically recent age (less than 11,000 years). This Holocene alluvium has low potential for significant fossil deposits and is thereby assigned low paleontologic sensitivity. However, these Holocene sediments were mapped some years ago and may have been disturbed and/or buried units exposed. The surficial units may overlie earlier deposits that are also present in portions of the project area but at uncertain depth. These deposits have an undetermined paleontologic sensitivity. Therefore, impacts of the project on paleontologic resources are considered potentially significant and Mitigation Measure CR-4 must be implemented for each development project in the CHCCSP project area.

d) Human Remains

The project area is not within a known or suspected cemetery and there are no known human remains within the project area. The Hermosa Gardens Cemetery is located adjacent to the project area at the southeast corner of San Bernardino Avenue and Meridian Avenue, east of the ARMC and immediately north of CHCCSP Planning Area 24 but is not a part of the CHCCSP project area. Applicable laws and regulations provide guidance in the event that human remains are found at any time in the project area.

If human remains are encountered during excavations associated with the project, all work would be required to be halted and the San Bernardino County Coroner would be notified as required by California State Law (Section 5097.98 of the California Public Resources Code). The coroner would determine whether the remains are of forensic interest. If the coroner, with the aid of the superv1smg archeologist, were to determine that the remains are prehistoric, he/she would contact the NAHC. The NAHC would be responsible for designating the "Most Likely Descendant" (MLD) who would be responsible for the ultimate disposition of the remains, as required by Section 7050.5 of the California Health and Safety Code.

The MLD would make his/her recommendations within 24 hours of the notification of the NAHC. This recommendation could include scientific removal and no destructive analysis of human remains and items associated with Native American burials (Section 7050.5 of the Health and Safety Code).

As discussed earlier, the Cultural Resources Assessment included consultation with Tribal groups and individuals named by the NAHC to elicit input on the presence or absence of resources within the APE. All responses received were documented and listed in Table 3 of the Cultural Resources Assessment (Appendix D).

Mitigation Measure CR-5 would be implemented on a project by project basis if an accidental discovery or recognition of any human remains are encountered during project construction. This will ensure that the impact of a proposed project to human remains is less than significant.

4.5.3.3 Mitigation Measures

The following mitigation measure will apply to properties within the CHCCSP project area that are either currently vacant or that are currently occupied with urban land uses where property owners may propose redevelopment of their property. Similar measures were outlined in the 2008 Records Search Letter Report (see Appendix D).

CR-1 Site-specific Records Search. Prior to project-level ground-disturbing activities within the CHCCSP project area, a project site-specific records search at the Archaeological

Information Center must be completed to determine if the project site has been subjected to a professional survey. If a current cultural resources report addressing potential impacts on cultural resources is available, the City/applicant will implement the mitigation measures provided within the report. Otherwise, mitigation measures CR-2 and CR-3 must be implemented during the City's application review process.

CR-2 Phase I Cultural Resources Study. In the event that a current and valid report is not available or if the entirety of the project-level site has not been professionally surveyed (see MM CR-1), a Phase I Cultural Resources Survey study shall be completed by a qualified cultural resource professional.

If the Phase I study detects built-environment resources (buildings or structures aged 45 years old or older), and construction or implementation of the proposed project will either disturb or destroy such buildings or affect their historic setting, then a cultural resource professional who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History will be contracted to determine if the project may cause a substantial adverse change in the significance of a built environment historical resource as defined in Section 15064.5 of the CEQA Guidelines. The City/applicant will be responsible for implementing the methods for eliminating or substantially reducing impacts on historical resources identified in the technical report. Such methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey documentation that is appropriate to the significance (federal, state, local) of the resource.

In the event that known or previously undetected archaeological resources are identified during the Phase I study then such resources must be recorded or updated onto Department of Parks and Recreation (DPR) 523 forms in accordance with all applicable regulations. In addition, any addressed resources must be evaluated for significance and eligibility for inclusion in all applicable registers of significant resources. This evaluation will be undertaken by a cultural resource professional who minimally meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology. In the event that such resources are found to be archaeological resources pursuant to CEQA, potential adverse impacts must be analyzed as stated in PRC Sections 21084.1and 21083.2(1), and appropriate measures must be generated to avoid or substantially reduce potential impacts on archaeological resources as necessary. The City/applicant will be responsible for implementing the methods for eliminating or substantially reducing impacts on resources identified in the technical report. Such methods could include, but are not limited to, subsurface testing or excavation of

archaeological resources and/or construction monitoring by a qualified professional and, if necessary, appropriate Native American monitors as identified through an information-seeping process and/or by the Native American Heritage Commission.

CR-3 Procedure for Unintentional Disturbance of Cultural Resources. If subsurface cultural resources are encountered during project-level implementation, or if evidence of an archaeological site or other suspected historic resources are encountered, all ground-disturbing activity will cease within 100 feet of the resource. A qualified archaeologist will be retained by the City/applicant to assess the find, and to determine whether the resource requires further study. Potentially significant cultural resources could consist of, but are not limited to, stone, bone, fossils, wood or shell artifacts or features, including structural remains, historic dumpsites, hearths and middens. Midden features are characterized by darkened soil, and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated by a qualified archaeologist retained by the City/applicant for significance under all applicable regulatory criteria.

No further grading will occur in the area of the discovery until the City (CEQA Lead Agency) approves the measures to protect the resources. Any archaeological artifacts recovered as a result of mitigation will be donated to a qualified scientific institution approved by the City (CEQA Lead Agency) where they would be afforded long-term preservation to allow future scientific study.

The following measures are recommended to mitigate potentially adverse impacts to paleontological resources on all sites where ground disturbing activities will occur:

CR-4 In conjunction with the preparation of site-specific geotechnical reports for individual development projects, the applicant shall also have a site specific Paleontological assessment prepared to establish the probability that paleontological resources have the potential to occur on an individual project site. If the assessment results in a determination of moderate or high paleontologic sensitivity, a paleontologic monitoring program shall be implemented. This monitoring program shall be consistent with the current provisions of CEQA and with the guidelines of the Society of Vertebrate Paleontology. If the assessment determines that the project area has low paleontologic sensitivity, no program to mitigate adverse impacts to paleontologic resources will be necessary. This measure shall be implemented to the satisfaction of the Development Services Director, who will be responsible for monitoring compliance.

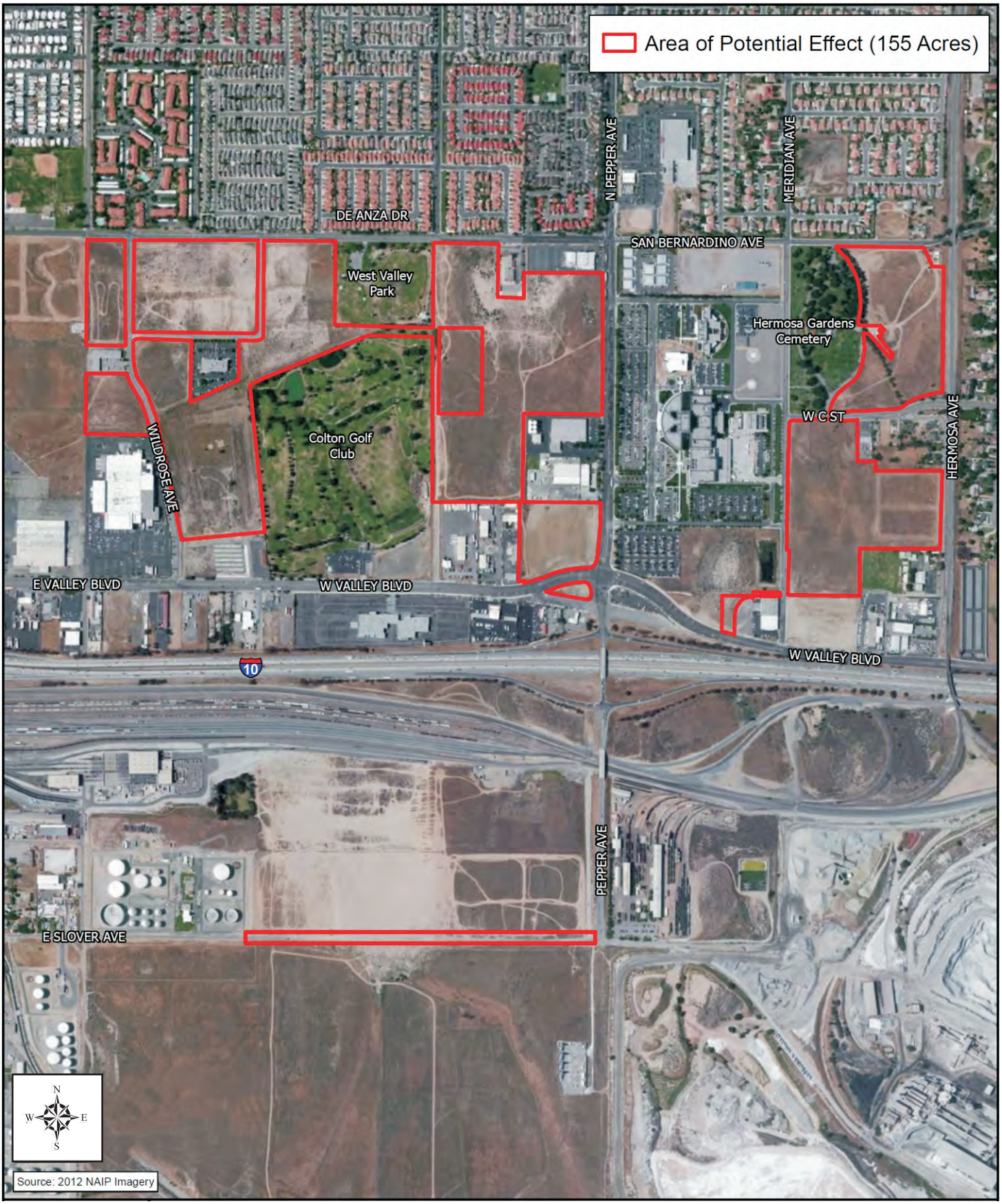
The 2008 Records Search included a number of measures that should be implemented including a measure to address the encounter of human remains during excavations associated with the project. This measure is included here as CR-5.

CR-5 In the event of an accidental discovery or recognition of any human remains, PRC §5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall 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 County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of 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 PRC §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 either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance:
  - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission,
  - The descendant identified fails to make a recommendation; or
  - The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

4.5.3.4 Level of Significance After Mitigation

Less than significant.



The Altum Group

Area of Potential Effect
CHCCSP Environmental Impact Report

Exhibit 4.5-1

4.6.1 Introduction

The purpose of this section is to address potential impacts associated with the geology and seismicity in the CHCCSP project area. Information for this section was obtained from the geotechnical investigation entitled, *Due Diligence Geotechnical Assessment for the Site EIR; City of Colton Super Block*, prepared by Petra Geotechnical, Inc., April 2008, and the Natural Resources Conservation Service (NRCS), *Custom Soil Resource Report for San Bernardino County Southwestern Part, California, CHCCSP Project Area*, January 2014. These reports are included in Appendix E. The Petra geologist who prepared the 2008 Geotechnical Assessment reviewed the CHCCSP as it relates to geology and soils and determined that the 2008 assessment was still adequate and no additional assessment of the project area was required at this time.

4.6.2 Environmental Setting

4.6.2.1 Geologic Setting

The project area lies on a relatively flat alluvial fan surface south of the Transverse Ranges, a geomorphic province that includes the San Gabriel and the San Bernardino Mountains. Elevations in the project area range from approximately 1,025 feet to approximately 1,145 feet above mean sea level, (msl). Eolian (wind blown) dunes along the northern boundary trend roughly north to northwest (Exhibit 4.6-1, *Regional Geologic Map*). These moderately to unconsolidated features overlie alluvial deposits and ultimately, granitic basement rock. Surface drainage flows to the southeast across the gently dipping, undulating surface. Vegetation consists of native and ruderal (common weedy) species including grasses and some shrubs. Also see Section 4.4-1, *Biological Resources* for a discussion of vegetation and wildlife on site.

The project area is located in the northernmost extent of the Peninsular Ranges Geomorphic Province, which extends from the foot of the San Gabriel Mountains southward to the tip of Baja California. Geologists refer to the tectonic region as the Perris Block, a structural unit characterized by Cretaceous and older granitic basement rock. Exhibit 4.5-2, *Regional Fault Map*, shows the Perris Block in relation to the regional fault zones. This structurally bound block of eroded crystalline rock lies beneath approximately 200-400 feet of alluvial deposits within the project area. Alluvium sourced in the Transverse Ranges deposited across the Cucamonga fault zone as a result of late Cenozoic uplift of the Transverse ranges at a rate of about 0.3 millimeters per year (mm/yr) since 5 million years ago. Currently, relative stasis between aggradational (deposition of sediments) and erosional wearing away processes characterizes this arid depositional environment. The San Jacinto fault zone is located along the eastern block boundary while the Elsinore fault zone in the Elsinore-Temecula trough serves as

the western block boundary.

Geologists mapped the area around the site (Exhibit 4.6-1) as the Rialto-Colton Terrace, a geomorphic surface associated primarily with alluvial deposits that may be derived from Lytle Creek to the north. The course of Lytle Creek has shifted over time based upon alluvial and fluvial processes in order to develop the conical, geomorphic form referred to as the Lytle Creek Alluvial Fan. Deposits sourced from the Santa Ana River, and offset by the San Jacinto and Rialto-Colton fault, may also exist in the subsurface in the project area. Today, dune sands blanket some 200-400 feet of alluvial deposits locally. The San Jacinto fault zone and Rialto-Colton fault are shown in Exhibit 4.6-3, *Earthquake Fault Zones*.

4.6.2.2 Topography and Soils

Slope

The project area is relatively flat to gently sloping area with elevations ranging from about 1,025 feet to about 1,145 above (msl). Approximately 15 to 25 foot high eolian dunes along the northern boundary have leeward slopes at nearly the angle of repose (30º to 34º) with windward slopes significantly less than that. Broadly, the undulatory surface dips gently to the southeast. Note: the angle of repose is the maximum slope gradient at which a mass of unconsolidated material will remain stable.

Soils

The U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) mapped the onsite soils as Delhi Fine Sand (Db) at the surface (See Exhibit 4.4-1 in Section 4.4, *Biological Resources*). Other soils in the vicinity include the Tujunga Loamy Sand (Tb), which crops out northwest and east of the project area, with some exposures of the Ramona Sandy Loam (RmC) north- and southward. A belt of the Tujunga Gravelly Loamy Sand (TvC), an alluvial deposit, crops out west of the site. These soils may be transported by wind and potentially inherited by the CCHCSP project area. However, as the dominant soil in the project area is Db, the NRCS has identified the entire project area as Delhi Fine Sand.

The geologic map of the San Bernardino 30 x 60 quadrangle refers to the Delhi Fine Sand as middle to late Pleistocene (>11,000 years ago (ka)), old eolian deposits ($Qoed_3$) or sheet sand. East of the project area, a relatively older eolian deposit ($Qoes_3$) has been mapped, also of middle to late Pleistocene age. West of Riverside Avenue, Holocene to middle Pleistocene Lytle Creek Fan deposits (Qyf_5, Qyf_1, Qof_3) dominate surface exposures. To the north, Holocene to late Pleistocene eolian deposits ($Qyes_1$), blanket the underlying alluvial deposits. Lastly, eolian deposits have been mapped at the surface between the project area and the Santa Ana River.

Artificial Fill (Qaf)

Artificial fill was identified across the site during field mapping for the geotechnical due diligence report. The artificial fill is likely associated with past grading activities within the property associated with the abandoned reservoir, abandoned airfield, golf course, existing developed properties, flood retention basin, and graded cut-fill pads. Where exposed at the surface at a few localities, the fill generally consisted of re-worked native soils primarily composed of very fine to medium sand with a minor component of silt. Isolated localities across the site contain imported fills containing silty sand and construction debris (concrete and asphalt) and trash.

The project area may have also supported an unlined, unrestricted landfill beneath the golf course (Petra 2008a). Residential, commercial and industrial properties exist sporadically across the project area including auto repair shops, service stations, and a golf course. Vacant, natural and modified land throughout the CHCCSP project area contains significant quantities of miscellaneous household trash and other debris.

Erosion

Geologists mapped the area around the site as the Rialto-Colton Terrace, a geomorphic surface associated primarily with alluvial deposits derived from Lytle Creek. The Lytle Creek course shifted over time based upon alluvial and fluvial processes in order to develop the conical, geomorphic form referred to as the Lytle Creek Alluvial Fan. Deposits sourced from the Santa Ana River, and offset by the San Jacinto and Rialto-Colton faults, may also exist in the subsurface of the project area.

Today, dune sands blanket approximately 200-400 feet of alluvial deposits locally. Dunes, though somewhat stabilized by vegetation, can be quite susceptible to erosion and deterioration. However, the late Pleistocene age suggests relative stability, possibly due to soil formation or secondary cementation of calcium carbonate (CO_3) or silica (SiO_2).

4.6.2.3 Seismicity and Faulting

The CHCCSP project area is located within a region characterized by a system of faults that accommodate approximately two thirds of the plate boundary motion between the North American and Pacific plates (see Exhibit 4.6-2). Recent studies suggest that there is a 97 percent probability in the next 30 years of a magnitude 6.7 Earthquake in southern California, a 94 percent probability of a magnitude 7.0, and a 46 percent probability of a magnitude 7.5. Reports published by the United States Geological Survey (USGS) cite the southern San Andreas fault, located fewer than 10 miles northerly from the project area, as the most likely of all faults

in California to rupture in a magnitude 6.7 or greater earthquake in the next 30 years. The USGS also indicates that there is a 59 percent chance along the southern part of the San Andreas Fault for a magnitude 6.7, while the probability along a strand of the San Jacinto fault ranges from 61 to 31 percent and similarly, the Elsinore fault ranges from 24 to 11 percent.

Relative to the project area, the closest active fault is the San Jacinto Fault Zone that consists of the main fault zone located approximately 2 miles northeast of the project area and the Rialto-Colton fault branch located approximately a quarter of a mile northeast of the site (Exhibit 4.6-4, *Project Site Fault Evaluation)*, shows proximity to these faults. In addition, reference has been made to a possible northwest trending fault that transects the eastern portion of the property and the ARMC. A subsurface investigation of the ARMC site was made to investigate this fault prior to development of the medical center. Gary Rasmussen and Associates (GRA) geologists completed this investigation in 1991 (GRA 1992b). That study involved a 2,624 foot long fault trench excavated to depths of 19 feet across the mapped trace of the fault. The approximate location of the trench is shown on Exhibit 4.6-5, *Geotechnical Map*. GRA identified late Pleistocene sand dune and fluvial deposits (Qoed3) within the entire trench with no evidence of fault displacement. In addition, the GRA investigation indicates that no fault related structures such as fractures, joints, in-filled cracks, or folding (warping) were identified within the trench exposure.

A listing of historical earthquakes published by the National Earthquake Information Center (2004) indicates that the largest earthquake occurring within a radius of approximately 60 miles of the site was the Magnitude 7.3 Landers earthquake in 1992. This event, along with the associated aftershocks, occurred approximately 60 miles east of the project area near Yucca Valley. The closest documented earthquake greater than a magnitude 6.0 was the magnitude 6.3 occurring on July 22, 1923. This earthquake occurred on the nearby San Jacinto fault zone east of the property.

Air Photo Lineament Review

Stereo-paired black and white historical aerial photographs were reviewed as part of the geotechnical due diligence. This review identified a very weak tonal and possibly geomorphic lineament in the eastern portion of the project area. Exhibit 4.6-5, *Geotechnical Map*, shows the location of the identified lineament. The lineament trends toward the northwest from the southeast corner of the project area and is most identifiable within the ARMC site. GRA excavated, logged and analyzed a fault trench across this mapped lineament within the ARMC site. Exhibit 4.6-5 shows the location of the fault trench relative to Petra's mapped lineament. The GRA fault trench exposed undeformed latest Pleistocene sediments and GRA concluded that no faulting had occurred in the property since the late Pleistocene.

The ground shaking intensity at a given location depends upon a number of factors: (1) the earthquake magnitude and directionality of rupture on the fault plane; (2) the distance from the epicenter or point directly above the hypocenter, which is the initial point of rupture; (3) the sense of motion on the fault, for example strike-slip also known as lateral or dip-slip indicating normal or thrust motion; (4) the depth to groundwater and susceptibility of soils to liquefaction; and (5) the lithology, soil or rock types underlying a site.

Given the proximity, the San Andreas, San Jacinto and Cucamonga faults are each capable of producing strong ground motion in the project area. A maximum magnitude earthquake on the San Andreas could produce seismic shaking in the project area with peak horizontal ground accelerations estimated between 0.32 g and 0.34 g. A lesser-known strand of the San Jacinto fault zone, the Rialto Colton fault, branches from the main strand less than a mile southeast of the I-10, I-215 interchange. In 1967, a trace of the right-lateral, northwest trending Rialto-Colton fault was mapped through the sections west and south of the Hermosa Gardens Cemetery, transecting the southwest corner of the cemetery property.

The Alquist-Priolo Earthquake Fault Zone delineates multiple fault traces of the Rialto-Colton fault within a hazard zone that terminates immediately north of the I-10 freeway. Although the trace continuation remains largely unconstrained north of the freeway, and outside the hazard zone, groundwater studies and seismic reflection images suggest that it acts as a structural groundwater barrier.

4.6.3 Environmental Impacts and Mitigation Measures

4.6.3.1 Thresholds of Significance

The following criteria for establishing the significance of potential impacts on earth-related resources were derived from Appendix G of the California Environmental Quality Act (CEQA) guidelines. A significant impact would occur if the proposed project:

a) Exposes 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 substantial evidence of a known fault;
    ii. Strong seismic ground shaking;
    iii. Seismic-related ground failure, including liquefaction; and/or
    iv. Landslides.
b) Results in substantial soil erosion or the loss of topsoil.
c) Is located on a geologic unit or soil that is unstable, or that it would become unstable as

a result of the project, and potentially result in an on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

d) Is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

4.6.3.2 Impact Analysis

a) Seismic Effects

Surface Rupture

Due to the close proximity of large known faults having a high probability of rupture, significant hazards within the project area may occur during a seismic event.

The Geotechnical Assessment prepared by Petra for the CHCCSP project area indicates that the project area is not within an earthquake fault zone, although, the Air Photo Lineament Analysis revealed a very weak tonal and possibly geomorphic lineament in the eastern portion of the project area (Exhibit 4.6-5). Response to this possibility came with a trench analysis performed in 1991 on the ARMC site in which no surface ruptures were encountered. Therefore, based on Petra's review and analysis of existing data, the potential for fault surface rupture across the project area is very low.

Seismic Ground Shaking

Earthquakes on faults further from the project area can be expected to produce lower peak horizontal ground accelerations at the project area. However, the San Andreas faults are sizable, active, and capable of large magnitude earthquakes, which could produce strong ground shaking within the CHCCSP project area.

The project area will probably experience ground shaking from local and regional earthquakes during the life of the proposed development. Furthermore, it should be recognized that the southern California region is an area of moderate to high seismic risk and that it is not considered feasible to make structures totally resistant to seismic related hazards. Structures within the project area should be designed and constructed to resist the effects of seismic ground motions as provided in Sections 1626 through 1633 of the 2007 California Building Code (CBC). The method of design will be dependent on the seismic zoning, site characteristics, occupancy category, building configuration, type of structural system, and building height.

For structural design in accordance with the CBC, a computer program, Earthquake Ground

Motion Parameters Version 5.07, developed by the United States Geological Survey (USGS, 2007) was utilized to provide ground motion parameters for the subject site. The program includes hazard curves, uniform hazard response spectra and design parameters for sites in the 50 United States, Puerto Rico and the United States Virgin Islands. Based on the latitude, longitude and site classification, seismic design parameters and spectral response for both short periods and 1-second periods are calculated including Mapped Spectral Response Acceleration Parameter, Site Coefficient, Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter and Design Spectral Response Acceleration Parameter. The program is based on USGS research and publications in cooperation with the California Geological Survey for evaluation of California faulting and seismicity (USGS, 1996a, 1996b, 2002, 2007).

Liquefaction/Ground Failure

Earthquakes on faults further from the project area can be expected to produce lower peak horizontal ground accelerations at the project area. However, the San Andreas faults are sizable, active, and capable of large magnitude earthquakes, which could produce strong ground shaking within the CHCCSP project area. Therefore, the project area is susceptible to very strong ground shaking. These findings indicated that a significant geologic hazard associated with seismicity and secondary effects of seismicity could occur within the project area differential settlement and ground failure related to the dry sands that cover much of the Project site. Therefore, soils should be evaluated by qualified engineers, prior to development to mitigate such hazards.

The Geotechnical Assessment included a review of the San Bernardino County Land Use Plan-Geologic Hazard Overlay Map. The review concluded that the CHCCSP project area is not located within a liquefaction zone. In addition, groundwater in the region is located at a depth of greater than 50 feet in which loose silts and sands are not expected to be encountered beneath the project area during rough grading operations. Therefore, the potential for liquefaction to occur within the project area is generally considered low.

Landslides

The site is more than 10 miles south of the foothills comprising the San Gabriel Mountains with an overall slope of less than two percent; therefore, landslide potential is considered to be low.

Development projects within the CHCCSP project area must conform to the seismic related conditions and codes set forth in the California Building Code and City Grading Ordinance as summarized in Table 4.6-1, *Seismic Related Conditions and Codes*.

b) Soil Erosion or Topsoil Loss

Currently, relative stasis between the processes of aggradation (soil deposition) and erosion (soil loss) characterizes the project area as having an arid depositional environment comprised of loose soils. These loose soils are associated with historic human activity (trash dumping, minor grading, agricultural activities); as well as wind-blown sands, erosion, and near surface weathering. Because of these conditions, future projects will be required to over-excavate development sites and re-compact the near surface alluvium in order to mitigate excessive settlement and removal of deleterious material. Erosion and loss of topsoil may also occur during grading and construction phases of individual projects without mitigation in the form of Best Management Practices (BMPs) for control of soil erosion during these development phases.

Table 4.6-1: Seismic Related Conditions and Codes

Impact/Hazard	Code
Ground-shaking and related seismic effects	California Building Codes, City Building Codes, and applicable seismic standards
Liquefaction and seismically-related soil conditions	California Building Codes, City Building Codes, and geotechnical report requirements
Disposal of excavated material	City Grading Ordinance and Building Codes
Unstable cut and fill slopes	California Building Codes or City Grading and Ordinance Building Codes
Trench wall stability	Cal OSHA Construction Safety Orders, City Grading Ordinance and Building Codes
Erosion of graded areas	City Grading and Ordinance; NPDES requirements for SWPPPs
Alteration of runoff patterns	City Grading and Ordinance; NPDES requirements for SWPPPs

Source: CCR Title 24, Part 2 – 2010 California Building Code, and City of Colton Title 16, Chapter 16.72, Grading and Erosion Control.

The City of Colton is subject to the National Pollutant Discharge Elimination System (NPDES) permitting process under its Municipal separate storm sewer systems (MS4) permit codified as Title 14, *Storm Drains and Floodplain Management* of the City's Municipal Code. The City is also a co-permittee under the Santa Ana RWQCB Order No. R8-2010-0036 (NPDES No. CAS618036), which issues the regional NPDES permit to the County of San Bernardino and the cities within the RWQCB's jurisdiction.

Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the state's NPDES General Permit for Dischargers of Storm Water Associated with Construction Activity. All future dischargers are required to obtain coverage under the Construction General Permit, whereas currently dischargers may elect to obtain coverage under the General Permit or under Individual Permits. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of BMPs and a monitoring program. Construction activities associated with development in the project area would involve vegetation removal, grading, and excavation activities that could expose barren soils to sources of wind or water, resulting in erosion and sedimentation in and out of the project area. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, landscaping, hydro-seeding, storm drain inlet protection, street sweeping, and any other measures to minimize and control construction and post-construction runoff to the "maximum extent practicable."

As discussed in Section 4.7 *Hydrology*, when nearing project completion, an applicant will be required to submit a Water Quality Management Plan (WQMP) which includes post construction BMPs to be implemented and managed during the life of the project to ensure compliance with RWCQB water quality standards. Special requirements pertaining to stabilization of soils would apply specifically towards maintenance of vegetative landscaping, drainage culverts/channels and drainage inlets. With implementation of the above standard requirements on a project by project basis, including the preparation and implementation of a SWPPP and WQMP and compliance with City Code requirements, potential construction-related erosion impacts would be less than significant levels.

Because future projects in the project area will be required to comply with the water quality regulations in place for the preparation and implementation of SWPPPs during construction and WQMPs during long term operation of projects, no additional mitigation is required.

c) Unstable Geologic Units or Soils

Liquefaction Potential

Geologic conditions susceptible for liquefaction include saturated (below the water table) fine sandy soils within 50-feet of the surface. Based on review of the San Bernardino County Land Use Plan Geologic Hazard Overlay Map FH30C that identifies liquefaction zones within the region of the property and the Geotechnical Section of the City of Colton General Plan EIR (2012), the project area is not within a liquefaction susceptibility zone. Although the site does contain abundant fine sands (sand dune deposits) within 50-feet of the surface, the published depth of groundwater beneath the site is greater than 150 feet. The GRA fault investigation within the

ARMC site also indicated that no evidence of liquefaction was observed within the 19-foot deep fault trench (Shown in Exhibit 4.6-5) dug for the ARMC geotechnical due diligence. Based on these data, the potential for earthquake-induced liquefaction and lateral spreading at the site is considered negligible.

Seismic Compression of Alluvial Materials

The settlements of dry sandy deposits as well as recently placed fill materials have been known to occur as a result of seismic activity. The project area is located close to active fault zones that could produce relatively strong ground motions inducing dynamic settlements. Therefore, a dynamic settlement analysis should be conducted as part of a subsurface geotechnical investigation of future development projects with the project area (see Mitigation Measures GEO-1 and GEO-3 at the end of this section).

Subsidence

According to the General Plan Program EIR (2013), the project area, like most of the City of Colton is subject to impacts associated with settlement and compressible soils due to the widespread presence of young, unconsolidated alluvial soils underlying the region. Settlement, collapse, and subsidence are all related to the generally loose and dry nature of the the soils . The lack of clay bonds that support soil strength in unconsolidated soil makes them susceptible to weakness under pressure.

Geologic Hazard Standard 1 of the existing General Plan Safety Element requires developers to conduct geotechnical studies to identify any liquefaction, collapse, subsidence, and other ground failure potential, and requires that appropriate design parameters be implemented on a project-by-project basis (in addition to soils reports required under the City adopted Chapter 18 and Appendix J of the California Building Code). Implementation of existing standards and regulations will reduce impacts associated with ground failure to less than significant levels. The planning area is not likely to be subject to subsidence associated with development due to the lack of clay within the soil, although localized subsidence could occur depending on soil specifics such as variation in grain size. Future development within the planning area, however, will increase the need for groundwater extraction to serve the water consumption needs of the community. Unless this is accomplished in a controlled manner and/or offset through sufficient recharge activities, there could be a potential for ground subsidence due to fluid withdrawal that weakens soil cohesion and leads to collapse (hydroconsolidation). The water agencies serving the City of Colton have identified programs within their Urban Water Management Plans for the long-term management of the area groundwater basins through water conservation programs including the use of natural and drought-tolerant vegetation in all future landscaping plans. Future groundwater recharge facilities may also be needed to ensure

maintenance of groundwater levels. However, the issues of development of new groundwater recharge facilities has not been raised in either the City of Colton or the West Valley Water District's Water Supply Assessments prepared for the CHCCSP project area.

Implementation of the policies of the Water District and the City are designed to ensure groundwater resources are recharged both through natural and assisted means. Water conservation helps to maintain groundwater levels by reducing the need to extract from them. For future development projects in the CHCCSP project area, this means the installation of water conservation appliances and fixtures, as well as landscaping with natural and drought tolerant vegetation. Implementation of these policies will reduce impacts associated with subsidence by maintaining adequate groundwater levels. Therefore, this impact would be less than significant.

Wind Erosion

The site is located in an area containing extensive sand dunes indicating that sand bearing winds occur in the region. These deposits were primarily formed from northwest to northerly winds (winds coming from the northwest and north). The magnitude of the potential hazard associated with sand bearing winds has likely decreased in historical times due to developments that have covered the natural ground (asphalt, buildings, concrete, etc). However, natural ground surfaces still occur in relatively large areas in the project area and wind-blown sands will likely occur, especially on the properties that will be in conservation and not developed. Mitigation measures for dust control during grading and construction of individual projects are included in Section 4.2, *Air Quality*. These consist of adherence to SCAQMD Rule 403 that requires control of fugitive dust on all construction sites. Future wind scenarios where sand blows across the project area must be evaluated on a project by project basis based on a developable site's proximity to undeveloped areas that are set aside in conservation; planning areas 3, 6, 11, 14 and 18, as well as planning areas adjacent to the proposed cemetery conservation site (planning area 24) and the existing Hospital and Valley Blvd/Pepper Avenue conservation site (planning area 23). Planning Area 14 is designated as Open Space/Park, but the intent of the Habitat Conservation Plan is that it be used as a transition area between planning areas 11 and 18 and may be left in a natural state.

Potential for Flooding, Tsunami and Seiche

Seismically induced flooding which might be considered a potential hazard to a site normally includes flooding associated with a tsunamis (large sea waves), a seiche (i.e., a wave-like oscillation of the surface of water in an enclosed basin that may be initiated by a strong earthquake) or failure of a major reservoir or retention structure upstream of a site. The project area is located many miles from the Pacific Ocean and at an elevation of more than

1,100 feet above sea level indicating that the hazard associated with tsunamis at the site is nil. Review of the San Bernardino County Flood and Dam Inundation map with base data provided by FEMA indicated that the site is not located within a 100 or 500 year flood zone or potential dam (reservoir) zone. Flood zones are identified with the Santa Ana wash located approximately 1.2 miles south of the property. Therefore, the potential hazard associated with flooding and dam inundation is considered very low.

With regard to unstable geologic units or soils, adherence to recommendations in the Geotechnical Assessment (EIR Appendix E) and application of Mitigation Measures GEO-1 through GEO-6 listed below would protect future residents and structures from unstable geologic conditions.

d) Expansive Soils

The San Bernardino 30 x 60 minute geological soils map shows clay-bearing sand at the surface on the Rialto-Colton Terrace on which the project area is located, although studies of adjacent sites show a lack of expansive soils. The future review of grading plans by a geologist which is required by Mitigation Measure GEO 1 would likely rule out expansive soils. In the event that expansive soils may occur on a project site, the site specific geotechnical report would identify additional measures to be implemented during grading or construction. All project applicants for future development projects in the CHCCSP project area must implement mitigation measure GEO-1 which requires that grading plans for individual development projects must be reviewed by a professional geologist who will determine if additional geotechnical evaluation is required based on proposed land uses and soil conditions.

e) Septic Systems/Alternative Waste Water Disposal Systems

As indicated in Exhibit 4.13-2 in Section 4.13, *Public Utilities*, the Specific Plan Master Sewer Plan will provide sewer lines for hook-up availability to all phases of development for individualized projects within the CHCCSP project boundary, therefore nullifying the need for septic tank, soil supporting capabilities. There is no impact associated with implementation of the CHCCSP.

4.6.3.3 Mitigation Measures

In addition to the California Building Code requirements for development in the CHCCSP project area, the Geotechnical Assessment recommends the following preliminary design considerations (mitigation measures) for development projects proposed within the project area unless superseded by a project specific Geotechnical Assessment:

GEO-1 Final grading plans for individual development projects proposed within the CHCC

project area shall be reviewed by a professional geologist to determine whether additional geotechnical studies (possibly including supplemental subsurface investigation, soil expansion potential, ground failure, differential settlement, and geotechnical analysis) may be necessary to provide detailed recommendations that are appropriate for the grading and construction proposed for the types of development projects being proposed (e.g. single family residential, retail commercial, office buildings).

GEO-2 Removal of Undocumented Fill: Where encountered during future grading at project development sites, these materials shall be excavated and replaced as properly compacted fill. These surficial fills vary in age and depth, and likely exist across much of the CHCC project area to various extents, including but not limited to the abandoned air strip, abandoned reservoir, and within the golf course. Debris such as pieces of asphalt, concrete, plant matter should be removed from the artificial fill during future grading within the property.

GEO-3 Re-evaluation of Documented Fill: Although not confirmed during the geotechnical due diligence assessment, it is possible that the artificial fill associated with the numerous vacant cut and fill pads within the project area (both in developed and undeveloped areas) were tested and documented during placement. Exhibit 4.6-5 shows the areas of the site containing vacant fill pads. Whether this is the case or not, it would be prudent to perform a geotechnical subsurface investigation in these areas to evaluate these fill soils if these pads are to be utilized for structural improvements. In addition, it is currently unknown whether or not these pads represent cut pads in structural late Pleistocene sediments, or documented fill pads. Fills and cuts also will likely occur associated with existing structures. Evaluation of these soils shall be considered for future proposed development on a project by project basis.

GEO-4 Overexcavation of Near-Surface Soils: The project area contains relatively loose soils in the near surface across most of the undeveloped portions of the project area including the vacant cut-fill pads. These loose soils are associated with historic human activity (dumping, minor grading): wind-blown sands, erosion, and near surface weathering. Therefore, in areas where these materials will not be completely removed as a result of design grading, the applicant shall be required to overexcavate and recompact the near-surface alluvium to mitigate excessive settlement and removal of deleterious material to the satisfaction of the project geologist.

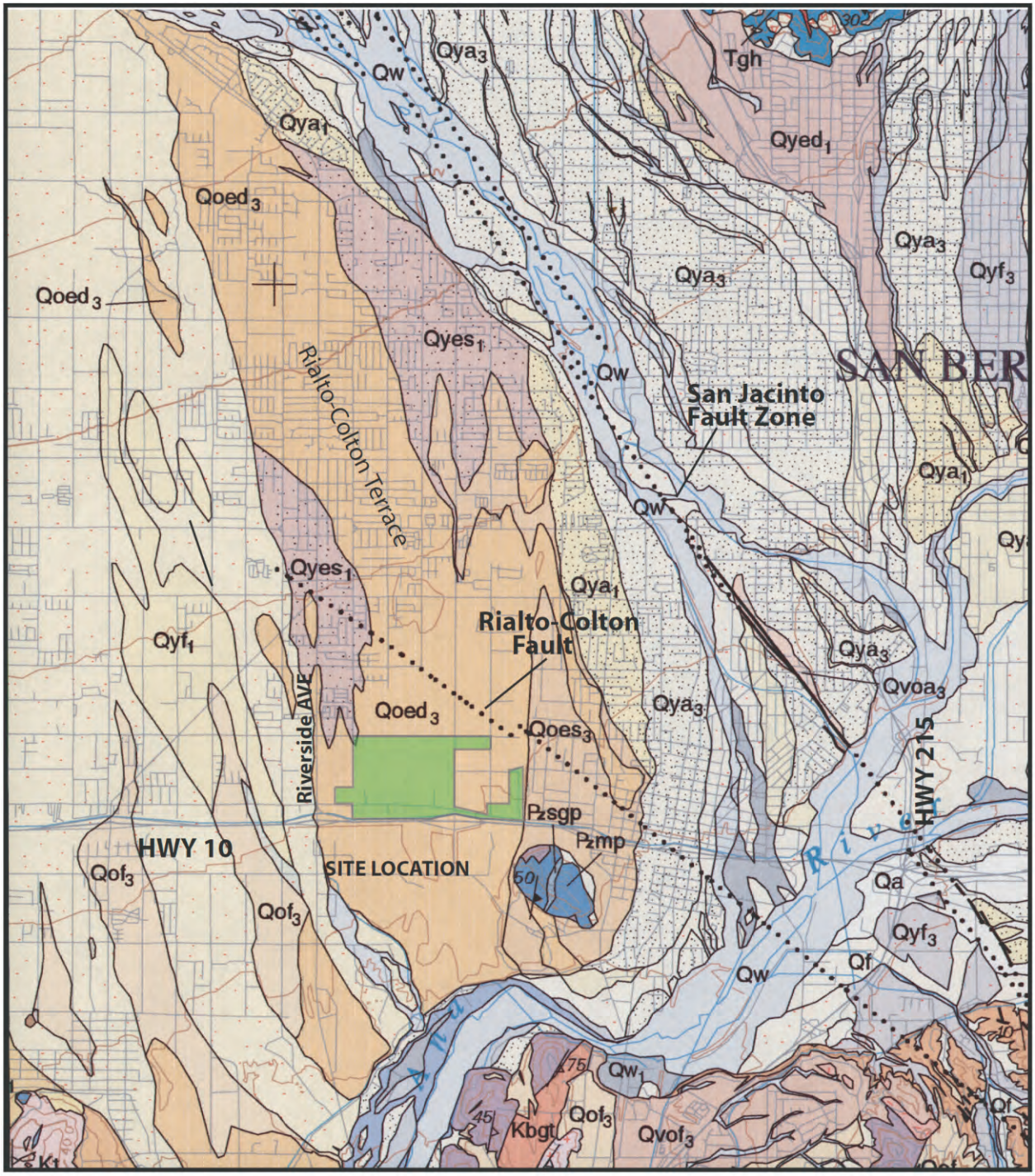
GEO-5 Cut/Fill Transitions: To mitigate the potential for differential settlement and to provide a relatively uniform bearing surface for proposed structures supported thereon, the cut

portions of the building pads should be overexcavated and replaced as compacted fill.

GEO-6 Surficial Stability of Existing Fill and Cut Slopes: Numerous small to medium- sized fill and cut slopes exist within the project area. Since onsite soils consist largely of granular, non-cohesive sands and possibly gravelly sands, the fill slopes may be subject to erosion and would require overexcavation and recompaction.

4.6.3.4 Level of Significance after Mitigation

Each development project in the CHCCSP project area will be required to implement the mitigation measures outlined here, as well as applicable Air Quality measures for dust control (Section 4.3, *Air Quality*) and Water Quality measures for control of stormwater runoff (Section 4.9, *Hydrology and Water Quality*). Implementation of all applicable measures will ensure that impacts associated with seismic activity and soil conditions would be less than significant.



Geologic Units

Qyes1 Early Holocene to Latest Pleistocene eolian deposits. Moderately consolidated, interbedded fine to medium grained sand dune and fluvial gravels.

Qoed3 Late to middle Pleistocene eolian and fluvial deposits. Moderately to slightly consolidated, interbedded sands and gravels.

Source: MBA, 2009

The Altum Group

Regional Geologic Map
CHCCSP Environmental Impact Report

Exhibit 4.6-1



Fault Symbols

Fault displaying Historical (past 200 years) surface displacement.

Fault displaying Holocene (past 11,000 years) surface displacement.

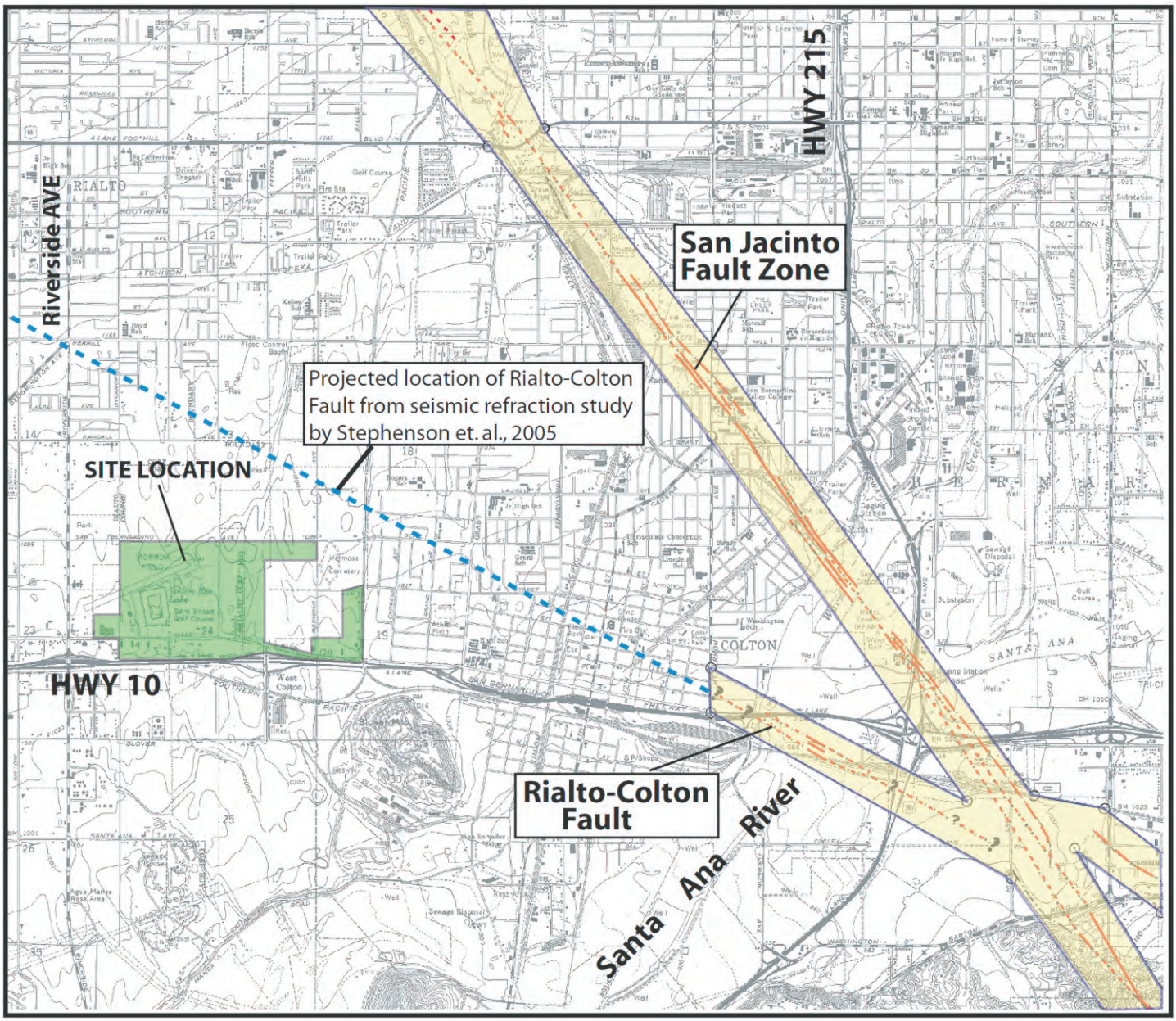
N
W E
S

Source: MBA, 2009

The Altum Group

Regional Fault Map
CHCCSP Environmental Impact Report

Exhibit 4.6-2



Symbol Descriptions

State of California Earthquake Fault Zone (EFZ)

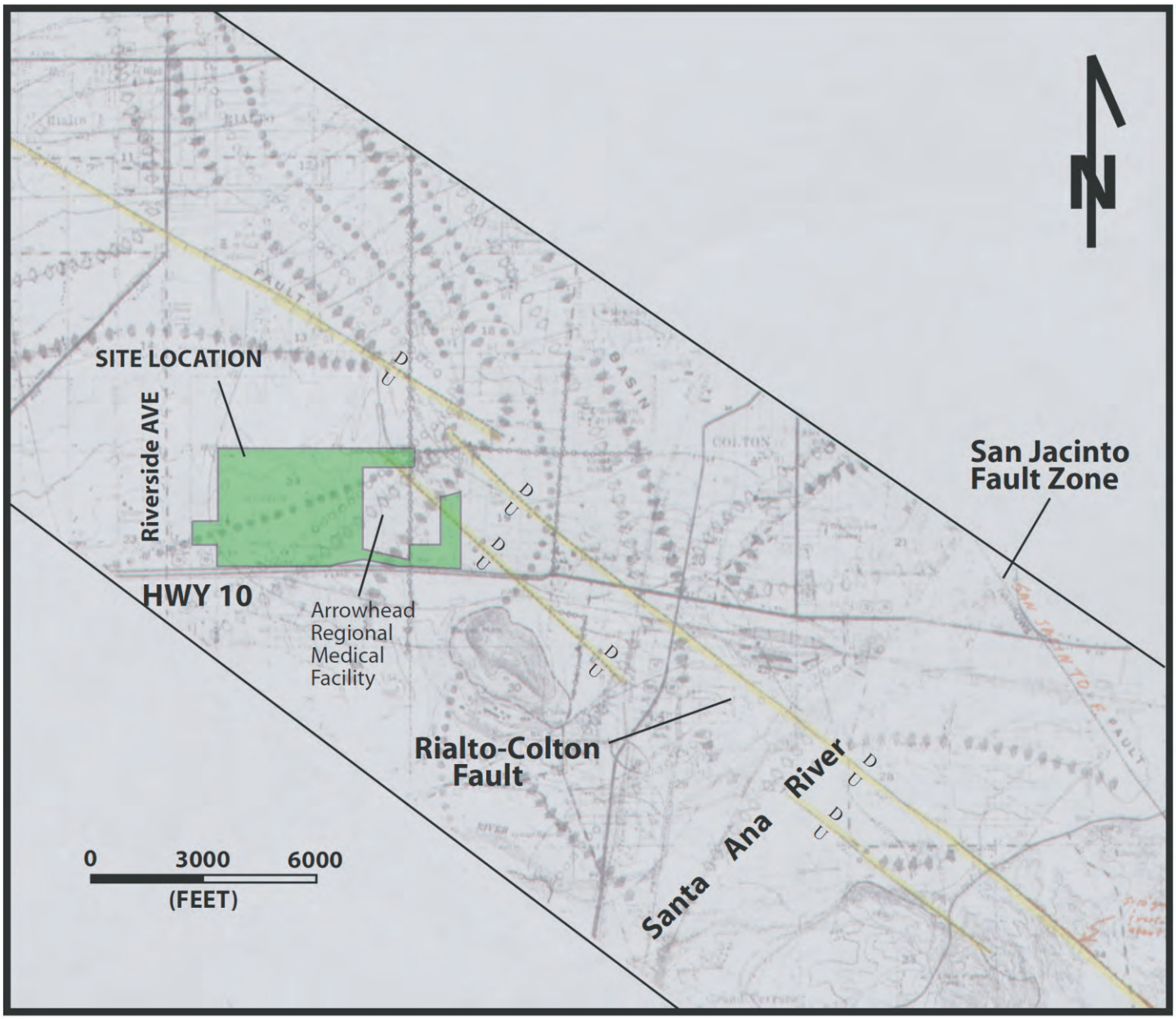
Faults considered to have been active during the Quaternary time: solid line where accurately located, long dash where approximately located, short dash where inferred, dotted where consealed; querry (?) indicates additional uncertainty.

Source: MBA, 2009

The Altum Group

Earthquake Fault Zones
CHCCSP Environmental Impact Report

Exhibit 4.6-3



Symbol Descriptions

D
? - - - - - - - - - - -
U

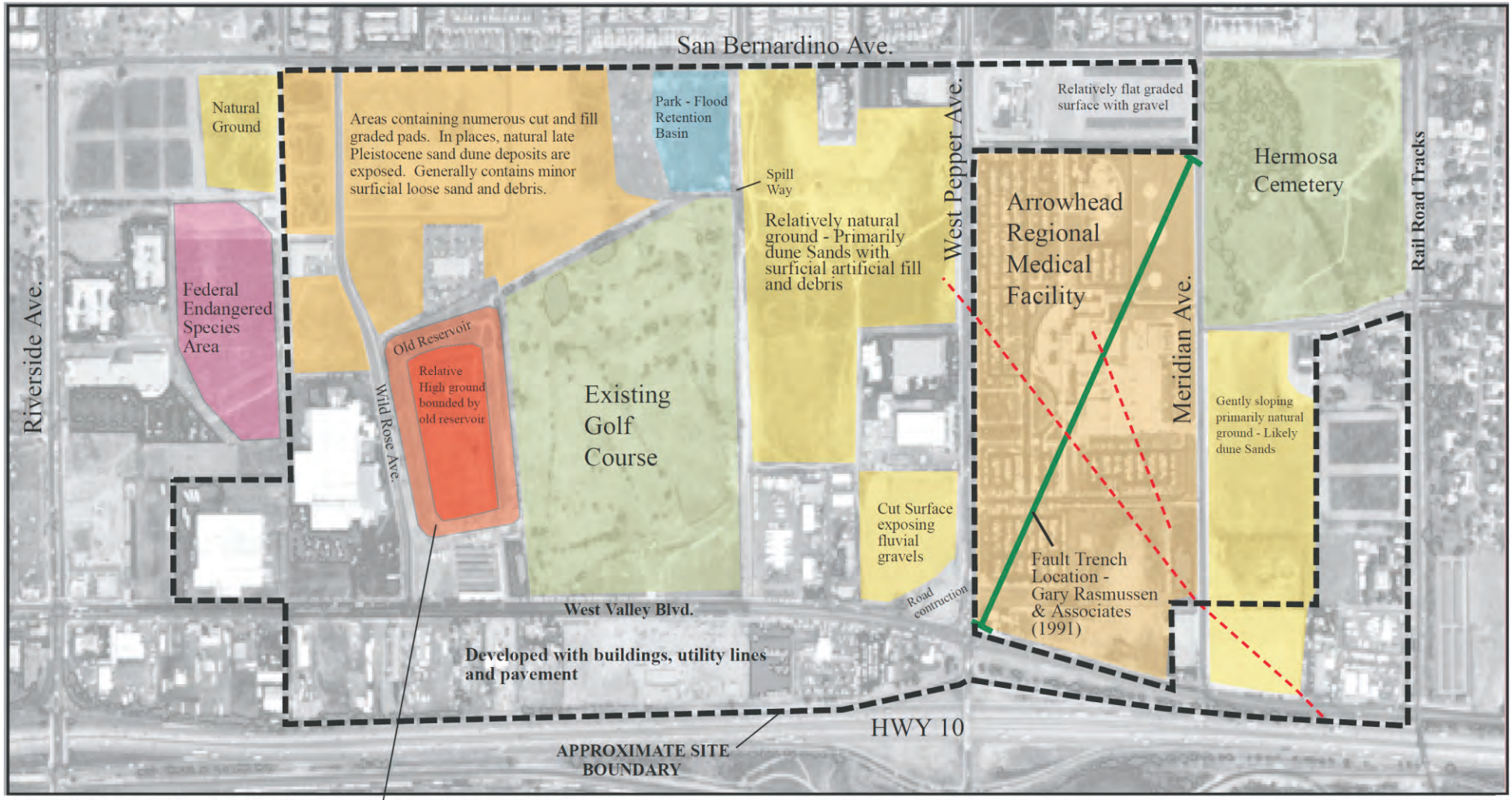
Possible subsurface (concealed) Faults based on variations in groundwater depths across fault; D - indicates downward movement, U- indicates upward movement. Faults originally mapped by Gosling, 1967.

Source: MBA, 2009

The Altum Group

Project Site Fault Evaluation
CHCCSP Environmental Impact Report

Exhibit
4.6-4



Aerial Photo taken in 2002.

Donut shaped reservoir with "island" dry ground in the middle was created between 1959 to 1966. The reservoir was dry and/or partially filled with unknown materials prior to 1978.

Lineaments Symbol Description

Weak Tonal Lineaments identified on historical stereo aerial photograhs

N W E S

Source: MBA, 2009

The Altum Group

Geotechnical Map
CHCCSP Environmental Impact Report

Exhibit 4.6-5

4.7.1 Introduction

The purpose of this section is to describe the existing setting regarding the generation of Greenhouse gasses, and the potential impacts that may occur with new development projects in the CHCCSP project area. Information for this section was obtained from the Air Quality Assessment entitled, *Colton's Hub City Centre Specific Plan, Air Quality, Global Climate Change and Health Risk Assessment Impact Analysis*, prepared by Kunzman Associates, February 2014. The report is included in Appendix B.

4.7.2 Environmental Setting

4.7.2.1 Constituent Gasses Contributing to Global Warming

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NO_x) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved in is critically important to projecting future climate change. As

the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, or soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid 1700's, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This could result in an average global temperature rise of at least two degrees Celsius.

Methane

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and Chlorofluorocarbons (CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). N_2O is produced by microbial

processes in soil and water, including those reactions which 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. It is used as an aerosol spray propellant, i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars.

Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFC's with the largest measured atmospheric abundances are HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 HFC-134a are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990's

were about 4 ppt. 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.

Aerosols

Aerosols are particles 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. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Global Warming Potential

GHGs have varying global warming potential (GWP). The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. One teragram of carbon dioxide equivalent (Tg CO_2e) is essentially the emissions of the gas multiplied by the global warming potential. One teragram is equal to one million metric tons. The carbon dioxide equivalent is a good way to assess emissions because it gives weight to the global warming potential of the gas. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 4.7-1, *Global Warming Potentials and Atmospheric Lifetimes*. The table shows that the global warming potential of GHGs ranges from 1 to 23,900 years.

Table 4.7-1 Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential (100 Year Horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane	50,000	6,500
PFC: Hexafluoroethane	10,000	9,200
Sulfur Hexafluoride	3,200	23,900

Source: AQ/GHG/HRA Assessment Table 2, Kunzman Associates, June 2013 (App. B).
Notes: Compared to the same quantity of CO_2 emissions.

4.7.2.2 Regulatory Setting

International

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by 2000 and methyl chloroform by 2005.

Federal

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO_2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and

new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

State

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). CARB also proposed interim statewide CEQA thresholds for GHG emissions and released Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act, on October 24, 2008. The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

Assembly Bill 1493

California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency

(CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 and by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

On December 6, 2007 CARB released the calculated year 1990 GHG emissions of 427 million metric tons of CO_2e ($MMTCO_2e$). The 2020 target of 427 $MMTCO_2e$ requires the reduction of 169 $MMTCO_2e$, or approximately 30 percent from the State's projected 2020 business as usual emissions of 596 $MMTCO_2e$ and the reduction of 42 $MMTCO_2e$, or almost 10 percent from the 2002-2004 average GHG emissions. Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO_2 in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources that became enforceable on or before January 1, 2010.

On December 11, 2008 the CARB Board approved a Scoping Plan, with final adoption May 11, 2009 that proposed a variety of measures including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, a market-based cap-and-trade system, and a fee regulation to fund the program. In current pending litigation, Association of Irritated Residents v. California Air Resources Board, a California State trial court found that the analysis of the alternatives identified in the AB 32 Scoping Plan Functional Equivalent Document (FED) was not sufficient for informed decision-making and public review under CEQA. In response, CARB has appealed the decision. In addition, CARB prepared the Supplement to the AB 32 Scoping Plan Functional Equivalent Document, June 13, 2011. On August 24, 2011 CARB recertified the complete AB 32 Scoping Plan Functional Equivalent Environmental Document revised by the Final Supplement. In December, 2011 the Final

Supplement was accepted as sufficient to fulfill the trial court's March order.

Senate Bill 1368

Senate Bill 1368 (SB 1368) is the companion Bill of AB 32 and was adopted September, 2006. SB 1368 requires the California Public Utilities Commission (CPUC) to establish a performance standard for base load generation of GHG emissions by investor-owned utilities by February 1, 2007 and for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a base load combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to the State, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission (CPUC) and California Energy Commission (CEC).

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011.

Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded," with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity,

when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."

- OPR's emphasize the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analysis and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bills 1078, 107, and X1-2 and Executive Orders S-14-08 & S-21-09

Senate Bill 1078 (SB 1078) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) changed the target date to 2010. Executive Order S-14-08 was signed on November 2008 and expands the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG), which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 13 percent below 2005 per capita GHG emissions levels by 2035. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which meets the CARB emission reduction requirements. The Housing Element Update is required by the State to be completed within 18 months after RTP/SCS adoption or by October 2013.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize,

through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Non-residential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions. The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now requires that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is

water conservation measures, which reduces GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 non-residential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, non-residential buildings over 10,000 square feet.

All buildings for which an application for a building permit is submitted on or after January 1, 2014 must follow the 2013 standards. The 2013 standards are estimated to be 30 percent more efficient than the 2008 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Regional - South Coast Air Quality Management District (SCAQMD)

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Coachella Valley. To that end, as a regional agency, the SCAQMD works directly with SCAG, county transportation commissions, and local governments and cooperates actively with all federal and State agencies.

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. A revised draft of the 2012 AQMP was released on September, 2012, and was adopted by the SCAQMD Board on December 7, 2012. The 2012 AQMP is now awaiting approval from CARB and EPA.

The 2012 AQMP builds upon the approaches taken in the 2007 AQMP for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the need to engage in interagency coordinated planning of mobile sources to meet all of the federal criteria pollutant standards. Compared with the 2007 AQMP, the 2012 AQMP utilizes revised emissions inventory projections that use 2008 as the base year. Since the 2007 AQMP was finalized new area source categories such as LPG transmission losses, storage tank and pipeline cleaning and degassing, and architectural colorants, were created and included in the emissions inventories. Composting waste was revised and now includes the emissions from green waste composting covered under SCAQMD Rule 1133.3. The 2012 AQMP also includes analysis of several additional sources of GHG emissions such as landfills and could also assist in

reaching the GHG target goals in the AB32 Scoping Plan.

SCAQMD Stakeholder Working Group

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described here. Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 10,000 MTCO2e for industrial uses.

Rules 2700 and 2701

The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan. Upon approval of the Plan, the Executive Officer is required to issue a certified receipt of the GHG emission reductions within 90 days.

Rule 2702

The SCAQMD adopted Rule 2702 on February 6, 2009, which established a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a Federal cap and trade program.

Rule 3002

The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO_2e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance to the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook), prepared by the SCAQMD, 1993, with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the South Coast Air Basin, and adverse impacts will be minimized.

Regional - Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated MPO for the majority of the Southern California region and it is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

Local – City of Colton

Local jurisdictions, such as the City of Colton, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2007 and 2012 AQMPs. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with

CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and State standards. Instead, the County relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

4.7.3 Environmental Impacts and Mitigation Measures

4.7.3.1 Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines' Appendix G Environmental Checklist and the City's Guidelines for Implementing CEQA, a proposed project may result in a potentially significant impact if it would:

a) generate greenhouse gas emissions, either directly or indirectly, or

b) conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The CalEEMod Version 2013.2.2 was used to calculate the GHG emissions from the proposed project. Through the San Bernardino Association of Governments (SANBAG), the City of Colton forms the Colton Chapter of the San Bernardino County Regional GHG Reduction Plan. The Plan has been prepared to assist the City in conforming to the GHG emissions reductions as mandated under AB 32. Based on the CARB Scoping Plan, reducing GHG emissions to 1990 levels by 2020 means cutting approximately 30 percent from business-as-usual (BAU) emissions levels, or about 15 percent from year 2008 levels, which is the baseline year for the GHG Reduction Plan. Consistent with the CARB Scoping Plan, the City of Colton has chosen a reduction target of 15 percent below 2008 GHG emissions levels by 2020.

The City of Colton is a participant, along with 20 other cities in the County Regional Greenhouse Gas Reduction Plan, coordinated by San Bernardino Association of Governments (SANBAG). The Plan was adopted and the EIR certified by the SANBAG Board on March 5, 2014. The City selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 emissions level which would result in a reduction of 34.27 below BAU levels at 2020. The local GHG measures adopted for the City are currently in the process of being transformed into a local Climate Action Plan (CAP) in order to streamline local implementation efforts.

Therefore, a proposed project would be considered to create a significant cumulative GHG emissions impact if the proposed project's GHG emissions are not 15 percent less in 2020 than GHG emissions from business-as-usual conditions for a similar size project in year 2008. As modeling for the year 2008 is not an option in CalEEMod, the BAU emissions were modeled for year 2010. The operating emissions were based on the year 2020, which is the anticipated opening year for the proposed project. Each source of GHG emissions is described in greater detail below.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used in the project area. The energy usage was based on the CalEEMod default emissions. No changes were made to the default energy usage parameters.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Traffic Impact Analysis into the CalEEMod Model.

Solid Waste

Solid waste includes the GHG emissions generated from the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. The CalEEMod default value for waste generated was utilized in the analysis.

Water

Water includes the water used for the interior of buildings as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. CalEEMod defaults were used.

Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30 year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction-related GHG emissions were calculated by CalEEMod.

4.7.3.2 Impact Analysis

a and b) Generate greenhouse gas emissions, either directly or indirectly, or conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Future development projects in the CHCCSP project area are anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project-related GHG emissions, the project impacts and a consistency analysis of the proposed project with any applicable GHG reduction plans, policies or regulations.

To comply with the methodology called for in the SANBAG GHG Reduction Plan, the project's year 2020 emissions were compared to the project's business as usual (BAU) emissions (which are emissions without the benefit of regulation, mitigation or project design features to reduce emissions). The BAU forecast does not take any credit for reductions from measures included in this Plan, including the Pavley greenhouse gas emissions standards for vehicles, full implementation of the Renewables Portfolio Standard beyond current levels of renewable energy, or the solar measures (CARB 2008). The project's BAU emissions would be approximately 1,141,086 metric tons of CO_2e per year and would exceed the SCAQMD draft threshold of significance of 3,000 metric tons of CO_2e per year for greenhouse gas emissions for all uses.

A summary of the BAU results are shown below in Table 4.7-2, *Project Related Business As Usual Greenhouse Gas Emissions*, and the CalEEMod Model run for the proposed project is provided in Appendix C. The data provided in Table 4.7-3. *Mitigated Project Related Greenhouse Gas Emissions 2020*, shows that future development projects in the CHCCSP project area with mitigation in year 2020 (opening year) emissions would be approximately 561,551 metric tons of CO_2e per year. Although the CHCCSP future projects would still exceed the SCAQMD draft threshold, the buildout scenario still meets the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard, compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction from BAU emissions. Therefore, with incorporation of mitigation measures GHG-1 through GHG 4 through GHG-11 (same as AQ measures identified in Section 4.3), proposed buildout in the CHCCSP project area would not create cumulative significant impact to global climate change.

The project is subject to the requirements of the California Green Building Standards Code. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

Table 4.7-2 Project-Related Business As Usual Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO_2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Area Sources[1]	29.21	60.90	90.11	0.09	0.00	92.69
Energy Usage[2]	0.00	33,755.47	33,755.47	0.96	0.22	33,843.81
Mobile Sources[3]	0.00	3,516.52	3,516.52	67.92	0.00	1,093,025.54
Solid Waste[4]	1,184.45	0.00	1,184.45	70.00	0.00	2,654.43
Water and Wastewater[5]	297.72	8,482.91	8,780.62	30.82	0.77	9,667.50
Construction[6]	0.00	1,800.76	1,800.76	0.01	0.00	1,802.49
Total Emissions	1,511.38	47,616.56	49,127.93	169.81	0.99	**1,141,086.46**
SCAQMD Draft Threshold						**3,000**

Source: CalEEMod Version 2013.2.2

Notes:

1. Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
2. Energy usage consists of GHG emissions from electricity and natural gas usage.
3. Mobile sources consist of GHG emissions from vehicles.
4. Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
5. Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
6. Construction GHG emissions based on a 30 year amortization rate.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as State law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- Water Efficiency and Conservation [Indoor Water Use (4.303.1)]. Fixtures and fixture fittings reducing the overall use of potable water within the building by at least 20

percent shall be provided. The 20 percent reduction shall be demonstrated by one of the following methods:

- Prescriptive Method: Showerheads (≤ 2.0 gpm @ 80 psi); Residential Lavatory Faucets (≤ 1.5 gpm @ 60 psi); Nonresidential Lavatory Faucets (≤ .4 gpm @ 60 psi); Kitchen Faucets (≤ 1.8 gpm @ 60 psi); Toilets (≤ 1.28 gal/flush); and urinals (≤ 0.5 gal/flush).

Table 4.7-3 Mitigated Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO_2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.00	64.20	64.20	0.01	0.00	64.67
Energy Usage[2]	0.00	28,627.32	28,627.32	0.82	0.20	28,701.60
Mobile Sources[3]	0.00	3,516.52	3,516.52	18.35	0.00	523,319.03
Solid Waste[4]	587.66	51.18	638.83	34.81	0.00	1,327.21
Water and Wastewater[5]	238.17	7,193.83	7,432.00	24.67	0.62	8,142.14
Construction[6]	0.00	1,800.76	1,800.76	0.01	0.00	1,802.49
Sequestration[7]						-1,806.11
Total Emissions	825.83	41,253.81	42,079.64	78.66	0.82	**561,551.03**
	Project's Percent Reduction from BAU					**50.79**
	Percent Reduction Threshold from GHG Reduction Plan					**15**
	Meets Reduction threshold?					**Yes**

Source: CalEEMod Version 2013.2.2. Calculated emissions for year 2020.

Notes:

1. Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
2. Energy usage consists of GHG emissions from electricity and natural gas usage.
3. Mobile sources consist of GHG emissions from vehicles.
4. Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
5. Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
6. Construction GHG emissions based on a 30 year amortization rate.
7. From approximately 2551 new trees planted on-site.

- Performance Method: Provide a calculation demonstrating a 20% reduction of indoor potable water using the baseline values set forth in Table 4.303.1. The calculation will be limited to the total water usage of showerheads, lavatory faucets, water closets and urinals within the dwelling.

- Water Efficiency and Conservation [Outdoor Water Use (4.304.1)]. Irrigation Controllers. Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:

  - Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' watering needs as weather or soil conditions change.
  - Weather-based controllers without integral rain sensors or communication systems that account for rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s).
- Construction Waste Reduction of at least 50 percent (4.408.1). Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4; OR meet a more stringent local construction and demolition waste management ordinance. Documentation is required per Section 4.408.5. Exceptions:
  - Excavated soil and land-clearing debris.
  - Alternate waste reduction methods developed by working with local enforcing agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
  - The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility.
- Materials pollution control (4.504.1 – 4.504.6). Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard.
- Installer and Special Inspector Qualifications (702.1-702.2). Mandatory special installer inspector qualifications for installation and inspection of energy systems (e.g., heat furnace, air conditioner, mechanical equipment).

Through SANBAG, the City of Colton forms the Colton Chapter of the San Bernardino County Regional GHG Reduction Plan. The Plan has been prepared to assist the City in conforming to the GHG emissions reductions as mandated under AB 32. Based on the CARB Scoping Plan, reducing GHG emissions to 1990 levels by 2020 means cutting approximately 30 percent from business-as-usual (BAU) emissions levels, or about 15 percent from year 2008 levels, which is the baseline year for the GHG Reduction Plan. Consistent with the CARB Scoping Plan, the City of Colton has chosen a reduction target of 15 percent below 2008 GHG emissions levels by 2020.

Therefore, a proposed project would be considered to create a significant cumulative GHG emissions impact if the proposed project's GHG emissions are not 15 percent less in 2020 than GHG emissions from BAU conditions for a similar size project in year 2008. As modeling for year 2008 emissions is not an option in CalEEMod, year 2010 emissions was used for generation of BAU (see Table 4.7.2 for results). Note: Business as usual greenhouse gas emissions do not

take into account project design features or mitigation measures to reduce greenhouse gas emissions. The business-as-usual forecast does not take any credit for reductions from measures included in this CARB Scoping Plan, including the Pavley greenhouse gas emissions standards for vehicles, full implementation of the Renewables Portfolio Standard beyond current levels of renewable energy, or the solar measures.

4.7.3.3 Mitigation Measures

Compliance with Mitigation Measures AQ-1 through AQ-14 identified in Section 4.3, *Air Quality* will ensure that impacts associated with the generation of emissions that lead to the development of greenhouse gasses is less than significant.

4.7.3.4 Level of Significance After Mitigation

A summary of the BAU results are shown below in Table 4.7-1, *Project Related Business As Usual Greenhouse Gas Emissions*, and the CalEEMod Model run for the proposed project is provided in Appendix C. The data provided in Table 4.7-2. *Mitigated Project Related Greenhouse Gas Emissions 2020*, shows that future development projects in the CHCCSP project area with mitigation in year 2020 (opening year) emissions would be approximately 561,551 metric tons of CO_2e per year. Although the CHCCSP future projects would still exceed the SCAQMD draft threshold, the buildout scenario still meets the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard, compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction from BAU emissions. Therefore, with incorporation of mitigation measures GHG-1 through GHG-11 (same as AQ measures identified in Section 4.3), proposed buildout in the CHCCSP project area would not create cumulative significant impact to global climate change.

4.8.1 Introduction

This section describes the existing setting regarding hazardous materials and the potential effects from development in the CHCCSP project area and its surrounding vicinity. Descriptions and analysis in this section are based on information contained in the *Phase I Environmental Site Assessment , Colton Super Block*, prepared by Petra, May 2008, and the Environmental Data Resources (EDR) Radius Map Report generated in June 2013 to update the data contained in the 2008 Phase I ESA. The 2013 EDR report was generated to update the environmental information contained in the 2008 Phase I ESA. These reports are included in Appendix F.

4.8.2 Environmental Setting

4.8.2.1 Definition of Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations (CCR), are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed of, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic (causes human health effects);
- Ignitable (has the ability to burn);
- Corrosive (causes severe burns or damage to materials); and
- Reactive (causes explosions or generates toxic gases).

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The CCR, Title 22, Sections 66261.2024 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as a hazardous waste.

4.8.2.2 Aerial Photographs

The Phase I ESA and subsequent EDR Radius Map Report both included a review of aerial photographs of the project area to determine if past land uses may have resulted in release of hazardous materials but the land use is no longer there. Aerial photographs dating back to 1930 were obtained as part of the Phase 1 ESA process.

Table 4.8-1: Aerial Photograph Summary

Year	Description
1930	Project site predominantly consisting of open fields used for grazing. Orchard farming visible along the eastern side of Hermosa Road.
1938	Dirt roads and trails appear crossing through project site boundaries with orchard farming along the eastern side of Riverside Avenue.
1953	Morrow Air Field is present with additional dirt roads and trails appearing inside project boundaries. Interstate 10 (under construction) is shown. Several industrial/commercial use structures appear on the south side of Valley Boulevard between Riverside Avenue and Pepper Road. Orchards to the eastern side of Hermosa Avenue have been replaced by a new housing development. Orchard farming abutting the eastern side of Riverside Avenue has been replaced by new homes.
1966	Colton Golf Club and Colton Recreational Lake appear with new industrial warehouse building constructed on the southwestern side of Morrow Air Field. Additional building structures with pad clearing, predominantly replaces open fields on the south side of Valley Boulevard between Pepper Avenue and Riverside Avenue. Orchards abutting Riverside Avenue are gone, and the orchards east of Hermosa Avenue are replaced by homes.
1978	Colton Recreational Lake is gone. More industrial/commercial development in-fill is seen on the southern side of Valley Boulevard between Pepper Avenue and Riverside Boulevard. Two new industrial/commercial buildings appear on the west side of Pepper Avenue between Valley Boulevard and San Bernardino Avenue. San Bernardino Avenue is a dirt road connector between Riverside Avenue and Pepper Avenue.0
1989	Open Space land located on the north side of San Bernardino Avenue (now paved) is replaced with a tract home development between Riverside Avenue and Pepper Avenue. A New Industrial/Commercial building (Price Club) appears on the west side of Wildrose Avenue within the project site boundary. Morrow Field is gone.
1995	Arrowhead Regional Medical Center under construction. Colton Golf Club still existing.
2002	Arrowhead Regional Medical Center is operational with a new tract home development located directly north of the medical center. Additional warehouse space is added to the old Price Club building on west side of Wildrose Avenue.
2012	Valley Boulevard is relocated northward at the point of intersection with Pepper Avenue at approximately 242 feet north from its previous intersection that is now vacated. This new intersection now abuts the northeastern corner of ARMC's parking lot

Source: EDR Inc. (2008 and 2013), Petra Geotechnical (2008a) (Appendix F) Google Earth. (June 2013).

The changes that have occurred within the CHCCSP project area and surroundings are summarized in Table 4.8-1, *Aerial Photograph Summary*.

4.8.2.3 Record Search

A search of federal, State, and local agency databases obtained by EDR in 2008 and 2013, provided available listings of contaminated sites, Brownfield sites (a development site having the presence or potential presence of a hazardous substance, pollutant, or contaminant), underground storage tank (UST) sites, above ground storage tank (AST) sites, waste storage

sites, toxic chemical sites, contaminated well sites, and other sites containing hazardous materials. Results of the database searches are summarized here and provided in its entirety in Appendix F.

Two documented sites were identified within the project area and several adjacent properties. The sites are known for having recognized environmental conditions (RECs) which are defined by the American Society of Testing and Materials (ASTM) as any hazardous substance or petroleum product under conditions that indicate an existing, past, or material threat of release into the structures, ground, groundwater, or surface water at the subject site. The sites are listed in Table 4.8-2, *REC Occurrences Within or Near the Project Area*.

The surrounding ¼ to ½ -mile buffer around the project area evaluated by Petra during field visits includes additional locations with the potential for environmental concern. No new recurrences were identified in the 2013 EDR Report.

4.8.2.4 Site Reconnaissance

A site reconnaissance of the project area was conducted in April 2008 as part of the Phase I ESA (Appendix F) with photographs included in Plate A and with a completed Site Inspection Checklist located in Appendix A of the Phase I ESA. Because no new development projects have been proposed until recently in the project area, no update to the 2008 report was deemed necessary, with the exception of the updated EDR report that describes any PECs or RECs that may have been identified since the 2008 data research was conducted.

4.8.2.5 Potential Environmental Concerns

Petra's site observations included a list of multiple sites within and adjacent to the project area with potential environmental concerns (PECs) due to the nature of the business observed during field visits. No determination was made because of the general nature of the Phase I task which was to identify potential hazards or hazardous conditions and make recommendations for further study at such time as development projects are proposed within the CHCCSP project area. Sites listed in Table 4.8-3, *Likely PEC Sites Within the CHCCSP Project Area*, are sites that have been recommended for further analysis and inspections at the time of project application at these properties.

Sites are listed in three categories:

1. No obvious indications of recognized environmental conditions are identified, but are considered likely to cause potential environmental concerns due to the nature of the business; or other observations made during field reconnaissance.

Table 4.8-2: REC Occurrences Within or Near the Project Area

Business	Address/Location	Type of Incident	Agency Database
Gas Station	1600 W. Valley Blvd	Leaking of gasoline (LUST)	SWEEPS UST; HAZNET; HIST UST;RCRA-SQG; LUST;FINDS
Price Club/Telco Foods	2109/2111 W. Valley Blvd	Ammonia leak; Carbon Monoxide emission; Leaking of gasoline (LUST)	SWEEPS UST; HAZNET;LUST;EARNS;CHMIRS;AIRS
ARMC	400 N. Pepper Ave	Potassium Hydroxide spill. Carbon Monoxide emission under permits issued by AQMD. Listed on SLIC.	CHMIRS; AIRS; AQMD; SLIC; HAZNET; CD WDS; UST; SLIC
SP Rail Yard	200 Marion Way, Bloomington Located ¼ mile from project area	Diesel fuel release from underground storage tank. Onsite toxic pit.	AIRS;SWEEPS UST; LUST; CORTESE
Gas Station	101 Valley Blvd, Rialto, Located 1/8 – mile from project area.	Leakage of underground fuel from tank impacting drinking water wells.	RCRA-SQG; RCRA-LQG; FINDS, HAZNET, UST, HIS UST, SWEEPS UST; CA FID UST; LUST; CORTESE
Gas Station	102 Valley Blvd, Rialto Located 1/8 – mile from project area	Product material release discovered during tank closure and impacted soil.	LUST; CORTESE
Gas Station	120 Valley Blvd, Rialto Located 1/8-mile from project area	Release of waste oil discovered and impacting soil.	LUST; CORTESE

Source: Petra Geotechnical, (2008b), EDR, 2013.

Notes:

AIRS: Aerometric Information Retrieval System.
CA FID UST: California Facility Index/Facility Inventory Database.
CHMIRS: California Hazardous Material Incident Report System.
CORTESE: DTSC's Hazardous Waste and Substances Site List.
EARNS: Emergency Response Notification System.
FINDS: Facility Index System.
HIST UST: Hazardous Substance Storage Container.
LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents.
RCAA-SQG: Resource Conservation and Recovery Act Information, Small Quantity Generator.
SLIC: Spills, Leaks, Investigations and Cleanups.
SWEEPS UST: Statewide Environmental Evaluation and Planning System.

2. No obvious indications of recognized environmental conditions are identified, but sites appear to have underground or above ground storage tanks that represent a potential concern should they undergo a release.
3. Sites listed as PECs within the project area, which are based on information from agency database searches.

Table 4.8-3: Likely PEC Sites Within the CHCCSP Project Area

Address	Business
401 Pepper Avenue	McNeilus Truck and Manufacturing
791 Pepper Avenue	Bishop Central Storehouse – LDS Church
310 Rexford Street	Jimmy McVay Mobile Service
313 Rexford Street	Republic Machine and Fabrication
319 Rexford Street	5 Start Auto Body
320 Rexford Street	AMCAI Machine Shop
1313 W. Valley Boulevard	Colton Unified School District Maintenance/Operations
1630 W. Valley Boulevard	Chadwick Auto Wholesale
1700 W. Valley Boulevard	I-10 Auto Sales/Budget Car Rental
1849 W. Valley Boulevard	Central Transport International, Inc.
1900 W. Valley Boulevard	Moss Brothers Ford (closed as of 2009)
2084 W. Valley Boulevard	Family Shoe Store
2111 W. Valley Boulevard	Telco Food Products (now CSM Bakery Products)
Burned Structures Along Valley Boulevard	Adjacent to the Hub

Source: Petra Environmental Division, May 2008, EDR, 2013.

Other sites within the project area that have not had a reported release but have USTs and/or ASTs which could represent a PEC should a release occur. These sites are listed in Table 4.8-4 *Likely Sites with USTs and ASTs Within the CHCCSP Project Area.*

Table 4.8-4: Likely Sites with USTs or ASTs Within the CHCCSP Project Area

Address	Business
1500 W. San Bernardino Avenue	County of San Bernardino
791 Pepper Avenue	Bishop Central Storehouse – LDS Church
1700 W. Valley Boulevard	California Auto Specialists/Inland Empire Toyota/Budget Truck Rental
1600 W. Valley Boulevard	Valero Service Station
1900 W. Valley Boulevard	Moss Brothers Ford (closed as of 2009)
1988 W. Valley Boulevard	Colton Auto Sales/Western Exterminator Company/Del Sol Auto Sales
2006 W. Valley Boulevard	Valley Truck Filters & Parts
2036 W. Valley Boulevard	Entenman's Orowheat Foods Co/Bimbo Bakeries USA Inc./Best Foods Baking Company (closed, vacant building)

Source: Petra Environmental Division, May 2008, EDR, 2013.

Finally, based on the agency database search, Table 4.8-5, *PEC Sites Within the CHCCSP Project Area*, lists facilities identified as PECs. Although three of the four sites listed are also included in Table 4.8-4, they are repeated in this table because they are listed in an agency database.

Table 4.8-5: PEC Sites Within the CHCCSP Project Area

Address	Business
401 Pepper Avenue	McNeilus Truck and Manufacturing. Although no releases have been reported from the site, it is listed in the California WDS database as an industrial facility.
1900 W. Valley Boulevard	Moss Brothers Ford (closed as of 2009). This facility has an above ground storage tank.
1500 W. San Bernardino Avenue	County of Bernardino. This facility may have either AST or UST.
2109/2111 W. Valley Boulevard	Price Club/Telco Foods. This facility had a reported release and has received agency closure. It is unknown if USTs are still present at this facility

Source: Petra Environmental Division, May 2008

4.8.2.6 Hazardous Materials

The Phase I ESA assessed the potential for hazardous materials being present through site reconnaissance, inspection of sites adjacent to the project area, historical land use data, and from agency data. A summary of the findings follows.

Asbestos/Lead-based paints

Even though all structures within the project area were not inspected for asbestos or lead-based paints, the Phase I ESA did note that older existing structures built prior to 1980 may contain asbestos materials and recommended that such structures receive an assessment prior to demolition, to evaluate asbestos materials, if present in the structure, and to be abated prior to demolition to comply with current regulations. The project area and surroundings are also historically known for orchard growing and may have utilized underground transite irrigation pipes lined with asbestos. Transite is a material used to make irrigation pipes that contain asbestos. The Phase I ESA therefore recommended that all transite pipes encountered should be disposed of, and replaced with pipes that are compliant with current regulations. The Phase I ESA also recommended that any soil drip lines found in older structures should be tested for lead-based paints.

Polychlorinated Biphenyls

The Phase I ESA noted the presence of pole and pad mounted transformers in the project area that may or may not contain polychlorinated biphenyls (PCBs) and recommended that any transformers should be removed from the project area, and that a licensed contractor or utility agency be assigned to such a duty. Furthermore, since interior building inspection was not performed, concern is noted in the report that existing building interiors may be utilizing

fluorescent light tubes containing trace amounts of mercury and that ballasts used contain PCB's.

Pesticides

Analysis of historical data indicated that orchards were once located in portions of the project area where pesticide and herbicide usage may have occurred. This raises the concern that pesticide and herbicide residues may exist, which would present a potential environmental concern in the project area. The Phase I ESA recommended soil samples be conducted in areas where orchards or groves once existed in order to evaluate and determine if a potential impact exists from past pesticide and herbicide usage.

Hydrocarbons/Aboveground and Underground Storage Tanks

Petroleum hydrocarbons are derived from crude oil which is refined into various petroleum products such as diesel, gasoline, kerosene, lubricants, and heavy fuel oils. Hydrocarbons constituents include benzene, N-heptane, and toluene, and generate health effects such as cancer, leukemia, asthmatic bronchitis, kidney damage, and eye irritation. Hydrocarbons are stored in ASTs and USTs. Leaking above ground (LASTs) and underground storage tanks (LUSTs) can result in contamination of groundwater sources and can also create potential flammable conditions. As of June 2013 there are no open cases of LUST release occurrences within a 0.25 mile of the project area boundary

Underground Gas Pipeline

Along the east side of Hermosa Avenue there exists a 14-inch, high-pressure pipeline right-of-way owned and operated by Kinder Morgan, connected to the Colton North Station petroleum storage facility (2051 E. Slover Avenue), the pipeline currently serves to export purchased fuels (diesel, jet fuel and gasoline) from west coast refineries to the Burlington Northern Santa Fe terminal in Barstow, Union Pacific Rail Road terminal in Yermo, and to terminals within Nevada (Kinder Morgan, 2013).

Waste Generation and Trash

Miscellaneous debris can be seen in open fields which include plastic, metal, polyvinyl chloride (PVC) pipes, tires, dry wall, furniture, motor oil bottles, five-gallon paint containers, and trash.

4.8.2.7 Regulatory Framework

Federal

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities. The 1984 RCRA amendments provide the framework for a regulatory program designed to prevent releases from underground storage tanks (USTs). The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must meet performance standards to ensure that the stored material will not corrode the tanks and require correct filling practices. In addition, owners and operators must report the existence of new UST systems, suspected releases, UST system closures, and keep records of operation and maintenance.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement with emergency response, site remediation, and spill prevention, most notably through the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances release. The act includes environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it is also designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

State

California Health and Safety Code

The California Environmental Protection Agency (Cal/EPA) has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et. seq. incorporate the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the California EPA for review and approval.

California Environmental Protection Agency Unified Program

Cal/EPA administers the Unified Program that consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. The state agencies responsible for these programs set the standards for their program while local governments implement the standards.

The state agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency and providing technical assistance to the Certified Unified Program Agencies (CUPAs) and Participating Agencies (PAs). The following state agencies are involved with the Unified Program:

The Secretary of Cal/EPA is directly responsible for coordinating the administration and certification of the Unified Program. The Secretary has certified 83 CUPAs as of March 2012, including the San Bernardino County Fire Department. These 83 CUPAs carry out the responsibilities previously handled by approximately 1,300 state and local agencies.

Department of Toxic Substances Control (DTSC)

The Department of Toxic Substances Control provides technical assistance and evaluation for the hazardous waste generator program including onsite treatment (tiered permitting).

Governor's Office of Emergency Services (DES)

The Governor's Office of Emergency Services is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) Program and the California Accidental Release Response Plan (CalARP) Programs.

Office of the State Fire Marshal (OSFM)

The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Material Management Plans and the Hazardous Material Inventory Statement Programs. These programs tie in closely with the Business Plan Program.

State Water Resources Control Board (SWRCB)

The State Water Resources Control Board provides technical assistance and evaluation for the underground storage tank program in addition to handling the oversight and enforcement for the aboveground storage tank program.

San Bernardino County

San Bernardino County Hazardous Materials Program

The San Bernardino County Fire Department's Hazardous Materials Division (HAZMAT) serves area residents of the City of Colton by responding to emergencies and monitoring hazardous materials and is designated by the State Secretary for Environmental Protection as the CUPA for most cities and unincorporated areas within San Bernardino County. As a part of CUPA, the San Bernardino County Fire Department manages the following hazardous material and waste programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan);
- California Accidental Release Program (CalARP);
- Underground Storage Tanks (UST);
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures (SPCC);
- Hazardous Waste Generation and Onsite Treatment; and
- Hazardous Materials Management Plans and Inventory Statements under Uniform Fire Code Article 80.

All facilities in San Bernardino County that handle or store hazardous materials in a quantity required by State law and regulation are to report such use or storage to the County of San Bernardino CUPA before the operation of their business. The amount of detail required to be reported, depends on whether or not a facility is subject to State Hazardous Materials Business Plan (HMBP).

A HMBP is a document containing detailed information on the storage of hazardous materials at a facility. Chapter 6.95 of the California Health & Safety Code (HSC) and Title 19, Division 2, of the California Code of Regulations (CCR) require that facilities which use or store such materials at or above reporting thresholds (see below) submit this information. The intent of the HMBP is to satisfy federal and State *Community Right-To-Know* laws and provide detailed information for use by emergency responders. All persons at the facility who are qualified to serve as emergency coordinators must be thoroughly familiar with the contents and use of the HMBP, with the operations and activities of the facility, and with the locations of all hazardous materials records maintained by the facility.

The owner of a facility must complete a HMBP and submit a copy to the CUPA for each site that handles any individual hazardous material or mixture containing a hazardous material which has a quantity at any time during the reporting year equal to or greater than:

- 500 pounds or more of any solid hazardous material [HSC §25503.5(a)]
- For liquid hazardous materials:

  - More than 55 gallons of any type or 275 gallons aggregate quantity on site for lubricating oils as defined by HSC §25503.5(b)(2)(B): [HSC §25503.5(b)(2)(A)]
  - 55 gallons or more of any other liquid, including waste oil. [HSC §25503.5(a)]
- For hazardous material gases:
  - More than 1,000 cubic feet (at standard temperature and pressure) of Oxygen, Nitrogen, or Nitrous Oxide stored/handled at a physician, dentist, podiatrist, veterinarian, or pharmacist's place of business. [HSC §25503.5(b)(1)]
  - More than 300 gallons of Propane used for the sole purpose of heating the employee working areas within the facility. [HSC §25503.5(b)]
  - 200 cubic feet or more of any other gas. [HSC §25503.5(a)]
- Amounts of radioactive materials requiring an emergency plan under Parts 30, 40, or 70 of Title 10 Code of Federal Regulations (CFR) or applicable quantities specified in items 1, 2, or 3, above, whichever amount is smaller. [HSC §25503.5(a)]
- Applicable federal threshold planning quantities for extremely hazardous substances listed in 40 CFR Part 355, Appendix A.

Note: Retail (Consumer) Products packaged for direct distribution to, and use by, the general public are exempt from HMBP requirements except where the local agency determines otherwise pursuant to HSC §25503.5(c)(1).

The HMBP must contain the following elements:

- Type of business;
- Description of activities;
- List of hazardous materials on-site;
- Business owner/operator identification;
- Hazardous Materials Inventory Statement (One page per chemical);
- A map of the facilities showing the location(s) where hazardous materials are stored and used;
- An emergency response/contingency plan, with an evacuation plan;
- An employee training plan; and
- Recordkeeping.

San Bernardino County Medical Waste Management Program

To protect the public and the environment from potentially infectious disease causing agents, the Medical Waste Management Program (MWMP), in the Environmental Management Branch of the State Department of Public Health regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the State's Medical Waste Management Act (MWMA). Additionally, the MWMP acts as the local

enforcement agency in a number of local jurisdictions that have elected to have the State implement the large quantity generator inspection program for medical waste management. For the City of Colton and County of San Bernardino, the County's Department of Environmental Health acts as the State's Local Enforcement Agency (LEA) for the MWMP.

Under the California Health and Safe Code Section 117690, Medical Waste is defined as follows:

(a) Medical waste means waste which meets both of the following requirements:
  (1) The waste is composed of waste which is generated or produced as a result of any of the following actions:
    (A) Diagnosis, treatment, or immunization of human beings or animals.
    (B) Research pertaining to the activities specified in subparagraph (A).
    (C) The production or testing of biologicals.
    (D) The accumulation of properly contained home-generated sharps waste that is brought by a patient, a member of the patient's family, or by a person authorized by the enforcement agency, to a point of consolidation approved by the enforcement agency pursuant to Section 117904 or authorized pursuant to Section 118147.
    (E) Removal of a regulated waste, as defined in Section 5193 of Title 8 of the California Code of Regulations, from a trauma scene by a trauma scene waste management practitioner.
  (2) The waste is either of the following:
    (A) Biohazardous waste.
    (B) Sharps waste.

(b) For purposes of this section, —biologicals means medicinal preparations made from living organisms and their products, including, but not limited to, serums, vaccines, antigens, and anti-toxins.

(c) Medical waste includes trauma scene waste.

Also, under Section 117820 of the Health and Safety Code the County of San Bernardino's Medical Waste Management Program must include, but not be limited to, all of the following:

(a) Issuing medical waste registrations pursuant to Chapter 5 (commencing with Section 117950) and permits pursuant to Chapter 7 (commencing with Section 118130).

(b) Processing and reviewing the medical waste management plans and inspecting onsite treatment facilities in accordance with Chapter 4 (commencing with Section 117925) for all small quantity medical waste generators required to be registered.

(c) Conducting an evaluation, inspection, or records review for all facilities or persons issued a large quantity medical waste registration pursuant to Chapter 5 (commencing with Section 117950) or issued a permit for an onsite medical waste treatment facility pursuant to Section 118130.

(d) Inspecting medical waste generators in response to complaints or emergency incidents, or as part of an investigation or evaluation of the implementation of the medical waste management plan.

(e) Inspecting medical waste treatment facilities in response to a complaint or as part of an investigation or emergency incident.

(f) Taking enforcement action for the suspension or revocation of medical waste permits issued by the local agency pursuant to this part.

(g) Referring or initiating proceedings for civil or criminal prosecution of violations specified in Chapter 10 (commencing with Section 118335).

(h) Reporting in a manner determined by the department so that the statewide effectiveness of the program can be determined.

City of Colton

Colton Emergency Operations Plan

The City of Colton has adopted the Emergency Operations Plan (EOP) that addresses potential impacts associated with natural disasters and technological incidents including both peacetime and wartime nuclear defense operations. The EOP provides a summary overview of operational concepts; identifies components of the City's emergency management organization within the National Incident Management System (NIMS); and the Standardized Emergency Management System (SEMS). The EOP explains the responsibilities of federal, State, county entities, and the City for protection of property and life and maintaining the overall well-being of the population. The City of Colton has prepared an EOP to ensure that effective allocations of resources benefiting and protecting the civilian population are executed during an emergency.

4.8.3 Environmental Impacts and Mitigation Measures

4.8.3.1 Thresholds of Significance

According to the California Environmental Quality Act (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 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 in 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?

4.8.3.2 Impact Analysis

a – c) Routine Transport, Use, or Disposal of Hazardous Materials/Risk of Upset

This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction

Site Preparation of Existing Developed Sites

Because the project area has some older development particularly along Valley Blvd and Pepper Avenue, and because other vacant properties contain evidence of illegal dumping, the Phase I ESA recommended that applicants for all new development projects, or projects where the existing sites would be redeveloped should submit a Phase I Environmental Site Assessment (ESA) to determine if a potential hazard exists. In addition, where the Phase I ESA prepared for the CHCCSP has identified sites with recognized environmental condition or a potential

environmental condition, remediation of the site and/or buildings may be required prior to development. In addition, some existing buildings may contain asbestos or lead based paint that may also need to be remediated before a new certificate of occupancy could be issued. Site conditions will be evaluated on a project by project basis as new development projects are proposed in the project area.

Construction of New Projects

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, State, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. Potential significant impacts during construction activities are considered less than significant.

Operation

The residential, commercial, office, and public uses envisioned for the proposed CHCCSP project area would not be large-quantity users of hazardous materials. Small quantities of hazardous materials would be used onsite, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (prevalent in many cleaners), disinfectants, and fertilizers. These substances would be stored in maintenance areas and would comply with all applicable storage, handling, usage, and disposal requirements listed in the packaging material. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity where the materials are located. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and State laws regarding hazardous materials transportation. As such, they are not expected to expose human health or the environment to undue risks associated with their use.

Uses in Business Park planning areas include light and medium manufacturing plants and facilities that may transport, use or dispose of hazardous materials. In addition, service stations will be permitted in Business Park, Retail and Retail Mixed Use planning areas with a Conditional Use Permit. Vehicle repair shops will be allowed in Business Park, Retail, Retail Mixed Use and Office Mixed Use planning areas. As previously discussed in the Regulatory Framework section, the San Bernardino County Fire Department HAZMAT Division is responsible for the State's Hazardous Materials Release Response Plans and Inventory (Business Plan) program. Projects handling hazardous materials would be required to submit a HMBP to the San Bernardino County CUPA for review and approval if a project's tenant intends to store

55 gallons of hazardous materials as a liquid, 500 pounds of hazardous materials as a solid, or 200 cubic feet of hazardous materials of gas onsite. Compliance with the CUPA program is part of a building permit and fire clearance review for all tenant improvements.

As previously noted under in Section 4.8.2.5, the project area contains numerous Potential Environmental Concerns (PECs). The Phase I ESA recommended that these sites and sites in the vicinity of these PECs have testing done to determine if contamination of hazardous materials are found on any sites proposed for development under the CHCCSP, and to remove and remediate any occurrence of hazardous materials from subject sites in compliance with federal, State, and local statutes and regulations. Mitigation Measure HAZ-1 addresses this concern.

Medical Office Uses

Under the CHCCSP medical office uses are allowed in the Retail planning areas (16, 2 and 22) and Retail Mixed Use planning areas (9 and 24). In Business Park planning areas (1, 5, 10, and 17) research laboratories and testing laboratories are allowed. Finally, in the Office Mixed Use planning areas (19, 21 and 23) medical offices and laboratories are allowed. Medical uses are not allowed in Residential or Open Space planning areas.

Any future medical office of laboratory uses where medical waste is generated, stored, transported, etc, must comply with the State Health and Safety Code and be subject to oversight by the San Bernardino County Department of Environmental Health acting as the Local Enforcement Agency (LEA) for the State. At a minimum, each applicant will be required to prepare and implement a Medical Waste Management Plan (MWMP). An MWMP must be prepared and submitted to the LEA for each new facility, transfer of ownership of an existing facility, relocation of a permitted facility, and/or changes to a previously submitted MWMP. The MWMP must included a list of the types of wastes generated at the facility, an estimate of the quantity of medical waste generated monthly, an explanation of how the facility disposes of medical waste, and an emergency action plan that explains how a facility will manage an emergency. Emergencies include such events as a treatment system breakdown, inability of the waste hauler to pick up the waste, spills, or natural disaster. The State provides a MWMP Checklist (Form CDPH 8661) to assist generators of medical waste with the development of their WMWP. Mitigation Measure HAZ-14 requires that all medical facilities that generate medical waste register with the County LEA as medical waste generators and prepare/implement a MWMP, per the California Health and Safety Code.

Slover Mountain High School

Slover Mountain High School is an existing continuation school located in Planning Area 24 on the eastern portion of the CHCCSP project area near Hermosa Avenue. The school is currently located between existing commercial land uses including RV Storage and retail uses along

Valley Boulevard, and vacant land (north and west). This Planning Area is designated as Retail Mixed Use (RMU) and comprises a total of 21.74 acres. The Colton Unified School District has no plans at this time to relocate the school.

Conditionally permitted uses in the RMU may include service stations, vehicle repair shops, and retail nurseries; all of which could use/handle hazardous materials. Because Slover Mountain High School is expected to continue to operate well after the CHCCSP is approved, and the school's physical education activities are also expected to continue with the utilization of the school's existing onsite playing field and basketball courts, special attention must be paid to the types of uses that may occupy adjacent sites as development projects are proposed in Planning Area 24. Future developers considering development of a project within Planning Area 24 (Retail Mixed Use) would need to consider the proximity of the school when considering locating a business that could emit hazardous emission or hazardous materials require handling.

Construction and Operational Emissions

Future project construction activities in Planning Area 24 will occur along the northern boundary of Slover Mountain High School. Such activities would include the use of heavy diesel-powered equipment (e.g., scrappers, graders, tractors, front-end loaders, off-road trucks) that would emit diesel particulate matter, which is a known carcinogen. As discussed in Section 4.2, Air Quality, adverse health effects from diesel particulate matter require regular exposure to concentrated emissions over a sustained period. Therefore, the type of construction activities that will occur within close proximity to Slover Mountain High School would require implementation and incorporation of mitigation measures referred to in Section 4.3, Air Quality. Note: Although the City of Colton does not have authority to impose mitigation measures on the CUSD, the mitigation measures referred to here are to comply with SCAQMD requirements for construction and operation within the South Coast Air Basin.

The Business Park designation provides for small to medium scale light industrial, distribution, warehousing, and other support uses. Retail uses would also be permitted as secondary uses. The intent is to create a high quality; cohesive business park setting that will complement the other uses within the CHCC project area and provide for pedestrian connectivity between uses. However, siting some uses near a school site or other sensitive receptors such as residential or hospital uses could result in adverse impacts.

The California Air Resources Board land use handbook addresses this issue by recommending buffer areas near distribution centers. The handbook recommends the following:

- Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating Transport Refrigeration Unit (TRUs) per day, or where TRU unit operations exceed 300 hours per week).
- Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.

In addition to Slover Mountain High School, Planning Area 24 includes a small residential neighborhood at the southwest corner of C Street and Hermosa Avenue. These uses will continue within the planning area as there are no plans to remove any existing uses. Therefore, applicants of future projects in Planning Area 24 will be required to consider these uses as they design their site plans to ensure minimal impacts to residential and school uses. Planning Area 24 is designated for Retail Mixed Use (RMU) with a mix of retail and office uses. Some Business Park uses are also allowed, however these are limited to businesses that are points of sale; meaning that the primary purpose is to sell merchandise. No warehouse or distribution uses are allowed in RMU planning areas.

Setbacks from residential uses are only identified for Retail uses and the setback is a minimum of 25 feet from the property line. However, because Planning Area 24 is unique in that it is the only planning area that currently has residential and school uses, site plan review for projects adjacent to these uses may result in additional setbacks and other limitations on development in order to ensure the health and safety of the residents and students. Mitigation Measure HAZ-13 specifically addresses Planning Area 24 as well as planning areas 5, 9 and 16 that abut future residential development in the CHCCSP project area.

Mitigation measures that address sites where a REC or PEC has been recorded, where aboveground or underground storage tanks, where septic systems may have been used, or where other environmental site constraints have been identified, are included at the end of this section.

d) Hazardous Materials Sites

According to the Program EIR (2013) prepared for the General Plan Update, there are four SuperFund sites in the City of Colton. None of these sites are near the CHCCSP project area. In addition, the Program EIR listed a number of sites in the City that are considered to be hazardous waste generators ad defined under RCRA, four of which are located along Valley Blvd in the project area. These are listed here.

Facility Name	Address
Valero Gas Station (active site) B&G Auto Sales (active site)	1600 W. Valley Boulevard
Budget Truck Rental (active site- former IE Toyota)	1630 W. Valley Boulevard
Grace WR &Co. (vacant site)	1700 W. Valley Boulevard

RCRA approaches hazardous wastes from a cradle-to-grave approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal. Hazardous waste generators are required to report use or transport of hazardous wastes to the EPA. Hazardous waste generators range from small producers such as dry cleaners and automobile repair facilities to larger producers such as hospitals and manufacturing operations.

In addition to the RCRA list, there is one site in the project area that is identified on the EPA's Toxic Release Inventory (TRI). The McNeilus Truck and Manufacturing facility at 401 North Pepper Avenue had a release in June 2009, but only one occurrence is identified, and nothing has been identified in the last four years. Mitigation measures listed to mitigate impacts identified in Impact HAZ-1 would also apply to the specific sites listed here, including the site at 401 North Pepper. By conducting a Phase I ESA for each site prior to any new soil or building disturbance, and if necessary remediating any hazardous conditions, the applicant would ensure that any contamination is controlled at the site to the satisfaction of the City, San Bernardino County CUPA, and the RWQCB.

e-f) Conflicts With Public Airports or Private Airstrips

The closest airport is Rialto Municipal Airport which is 4 miles north of the CHCCSP project area and is not located within the boundaries of the airport land use plan for this airport. In addition, the Rialto Airport and surrounding area is planned for new development under the Renaissance Specific Plan (2010), and no future aviation uses are proposed.

The next closest public airport is the San Bernardino International Airport (SBIA), which is over 7 miles east of the project area and will have no impact to future businesses and residents of the project area.

The project area is located approximately 13 miles northeast of the Ontario International airport, well outside the airports area of influence and its airport land use plan. Therefore, future development projects in the CHCCSP project area will not be adversely affected by airport or airstrip uses.

There are no private airstrips located in the vicinity of the CHCCSP project area.

ARMC Helipads

There is a series of three helicopter landing pads associated with the ARMC, all located in an area at the southwest corner of Violet Street and Meridian Avenue. Landing pads are for emergency transport of patients to and from the ARMC and are used intermittently as necessary. Exhibit 4.8-1, *Helicopter Landing Pads and Proposed Surrounding Land Uses*, shows the relationship between the ARMC and proposed CHCCSP planning areas. As shown in this exhibit, the helicopter landing area is immediately west of the Hermosa Gardens Cemetery, an area of open space with two habitable structures near the center of the site. To the south of the cemetery is Planning Area 24, a 43.8-acre planning area designated for Retail Mixed Use, which would be subject to maximum building heights of fifty to sixty feet (with additional 10 feet for architectural features) and compliant with Federal Aviation Administration (FAA) standards. Planning Area 21 to the north of the ARMC is designated for office mixed uses and will have maximum building heights of 60 feet (with additional 10 feet for architectural features) and setbacks from a public road of at least 20 feet. Maximum building height would allow buildings to be similar in height as the ARMC. The distance between the closest landing pad and a future building would be at least 210 feet. The landing pad nearest Planning Area 21 is 150 feet south of Violet Street which is approximately 40 feet wide; and the minimum building set back is 20 feet for a total of approximately 210 feet. Violet Street is a short street that runs between Pepper Avenue and Meridian Avenue and serves as a drive aisle across the north side of the ARMC. Diagonal parking stalls are delineated on both sides of the drive aisle, and the access from Meridian is one-way/exit only. No entry from Meridian is allowed.

In summary, the Hermosa Gardens Cemetery will remain as Open Space and will allow helicopters approaching or leaving the ARMC a clear path to the landing pad as currently occurs. Building lighting, window treatments (for daytime glare) and parking lot lighting shall be mitigated by measures set forth in Section 4.1 Aesthetics. Prior to development of projects within Planning Areas 21 and 24, site plans, including lighting plans (i.e., photometric analysis) must be submitted to the County of San Bernardino Land Use Services Department who will be responsible for coordinating with the ARMC administration to ensure no impacts to the ARMC or the helicopter landing pads occur.

Mitigation Measure HAZ-12, addresses safety issues related to development near the ARMC helipads and emergency access to and from the ARMC.

g) Conflicts with Emergency Response or Evacuation Plans

Implementation of the proposed CHCCSP would in the development of a variety of land uses (e.g., residential, commercial and professional office, manufacturing) all within close proximity

to the ARMC. Streets and roads in the project area are proposed to be improved and would continue to provide adequate emergency vehicular access to all public areas of the ARMC. Driveways, roadways would be required to comply with City, transportation and fire department safety requirements related emergency access and evacuation routes, (i.e. two points of access, minimum roadway widths and turn radii, sight distance requirements, etc.) The CHCCSP project area will be developed with a series of neighborhood streets that feed into collector streets that will be improved with appropriate roadway improvements including new dedicated turn lanes, new traffic signals and widening of streets to accommodate additional traffic. All streets will be developed to City standards. Street sections showing typical design are included in the CHCCSP. Mitigation measure HAZ-12, below, addresses the emergency helicopter access.

h) Wildland Fires

The CHCCSP project area is located in an urban area bounded on the south by the I-10 freeway and on the north by San Bernardino Avenue, and is surrounded by urban uses and intermittent vacant land. The project area is not located near the mountains or desert regions of the County where proximity to wildland areas is more common. Any brush fires that may occur within the project area can be quickly addressed due to the availability of fire protection services in the vicinity. As the project area develops, such fires would no longer pose a risk due to buildout of the undeveloped vacant land. This issue is discussed further in in Section 4.14, *Public Services*.

4.8.3.3 Mitigation Measures

HAZ - 1 Prior to development of a site in the CHCCSP project area, applicants for development of any site that has been documented in the Phase I ESA and/or subsequent EDR report (2013) as having a REC or a PEC within the project area shall be required to conduct a site specific Phase I ESA to determine if a potential significant impact exists. If the Phase I ESA concludes that there are hazardous materials on site, a Phase II ESA shall be conducted including soils testing. If test results are found to be positive for a potential impact, then a Site Remediation/Local Oversight Program shall be implemented to clean and detoxify the subject site prior to initial ground disturbance activities (e.g., grading).

HAZ - 2 Prior to onsite development of sites not listed as having a REC or a PEC on site, the landowner/developer shall conduct a Phase I ESA that determines if contamination from pesticide and herbicide usage has occurred by taking soil samples at suspected former orchard grove sites. This measure also applies to sites where evidence of illegal dumping has occurred. Remediation, if required, shall occur prior to any site disturbing activities.

HAZ - 3 Prior to onsite development, applicants for development of any site documented in the Phase I ESA as having ASTs shall provide proof of documentation to confirm that ASTs have been placed within secondary containment units or have been removed.

HAZ - 4 Prior to onsite development, applicants for development of any site documented in the Phase I ESA as having USTs shall provide proof of documentation to the City's Building Official to confirm recent fit test documents that demonstrate no indications of a release.

HAZ - 5 Prior to demolishing any existing building(s), the landowner/developer shall conduct an inspection to assess existing building for asbestos containing materials prior to demolition, and if encountered, the material shall be abated prior to demolition by a qualified contractor in accordance with current local, State, and federal regulations.

HAZ - 6 Prior to onsite development, existing buildings found with soil drip lines shall be tested for lead-based paints, and if found to be positive, shall be removed and replaced with non, lead-based coated soil drip lines.

HAZ - 7 Prior to onsite development, transit pipes, if encountered in former orchard grove areas, shall be removed by the landowner/developer and disposed of in accordance with current regulations.

HAZ - 8 Prior to onsite development, all existing transformers, to be removed, shall be conducted by a licensed contractor or utility agency responsible for transformer maintenance.

HAZ - 9 Prior to onsite development, the landowner/developer shall remove all miscellaneous trash debris and dispose of it in accordance with current regulations. Areas underneath debris accumulation piles shall be re-inspected for staining and possible hazardous waste material.

HAZ - 10 During onsite development, if a septic tank is encountered, the landowner/developer shall provide for the removal and disposal of septic tank(s) in accordance with current regulations.

HAZ - 11 Adherence to mitigation for air quality to reduce construction related emissions during development of projects in Planning Area 24 would reduce impacts to less than significant levels when construction activities can be limited either by limiting duration of activities or number of pieces of equipment in simultaneous use such that emissions thresholds are not exceeded. Prior to commencement of grading

activities in Planning Area 24, the applicant shall conduct a project specific air quality analysis to determine how to achieve this reduction in emissions.

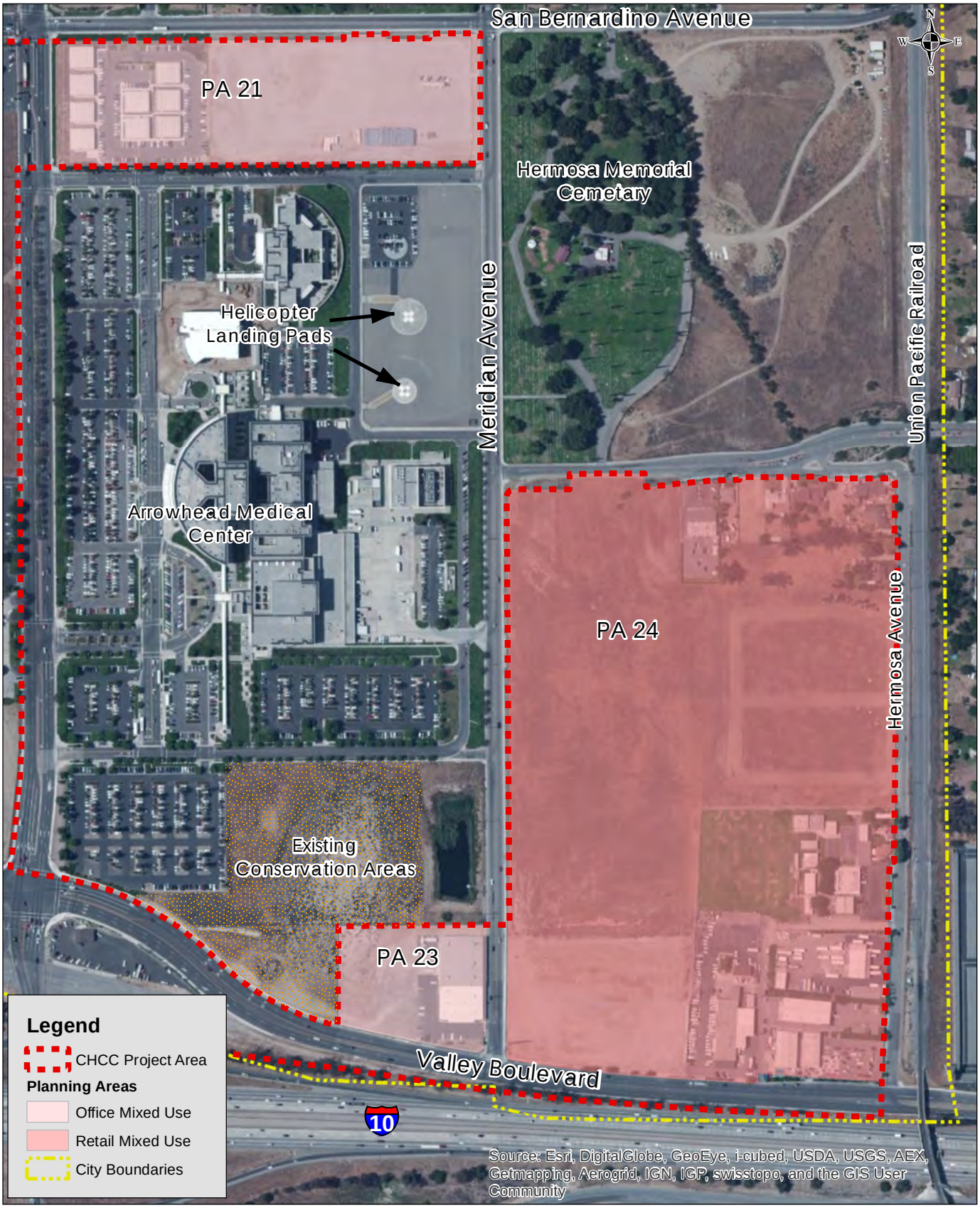
HAZ - 12 Prior to development of projects within Planning Areas 16, and 19 through 24, site plans, including lighting plans must be submitted to the County of San Bernardino Land Use Services Department who will be responsible for coordinating with the ARMC administration to ensure no impacts to the ARMC or the helicopter landing pads occur. In addition, emergency access to and from the ARMC site must also be considered in the planning of future development projects in these planning areas. Site plans must include proposed building setbacks from property lines and show the distance between the ARMC helicopter landing pads and proposed buildings. Lighting and landscape plans must also accompany the site plans. The County shall provide input to proposed plans to ensure compatibility between proposed land uses within these planning areas and the ARMC's ability to provide safe ingress and egress of helicopters, and emergency vehicles.

HAZ-13 In order to ensure land use compatibility between future uses in adjacent planning areas, or adjacent uses within planning areas, applicants for future development projects within Planning Areas 5, 9, 16, and 24 (planning areas that include sensitive receptors or will in the future), shall plan their sites to consider proximity to residential neighborhoods and Slover Mountain High School. This may require greater setbacks from property lines, consideration of the location of emergency access points, location of HVAC equipment, location of storage tanks or storage buildings. All new projects in the CHCCSP project area will be subject to site plan review and approval by the Development Services Director or his/her designee.

HAZ - 14 For all businesses that generate medical waste, each business shall register with the San Bernardino County Department of Environmental Health as a medical waste generator and prepare/implement a Medical Waste Management Plan (MWMP) as required under the California Medical Waste Management Program. The Department of Environmental Health, as the Local Enforcement Agency (LEA) for the State is responsible for approving the MWMP as well as conducting inspections of these facilities.

4.8.3.4 Level of Significance After Mitigation

Implementation of mitigation measures HAZ-1 through HAZ-14 will ensure that impacts would be less than significant.



Source: ESRI Basemaps 2013, San Bernardino GIS 2013

1 inch = 400 feet

The Altum Group

Helicopter Landing Pads and Proposed Surrounding Uses
CHCCSP Environmental Impact Report

Exhibit 4.8-1

4.9.1 Introduction

This section describes the existing hydrology and water quality setting and identifies the potential adverse effects from project implementation at the site and surrounding area. It is based on the *Preliminary Hydrology Report, Colton Super Block*, prepared by Hall and Foreman, August 2013, The City of Colton General Plan Program EIR (January 2013) and the Water Supply Assessments prepared for the Specific Plan that evaluates the availability of water (Groundwater) to meet project needs. The project area is divided into two water district jurisdictions. The West Valley Water District's Water Supply Assessment for the project was prepared in 2008 and updated in 2013. The City of Colton's Water Supply Assessment was prepared in 2008 and reviewed in 2013, and found by the City Engineer, to still be adequate because no new development projects have been completed in the project area since 2008. The Hydrology Report is included in the EIR in Appendix G, while the Water Supply Assessments are included in Appendix J.

4.9.2 Environmental Setting

4.9.2.1 Climate

The City of Colton is located in southern California that is characterized as a semi-arid Mediterranean climate with mild winters and warm summers. Most precipitation occurs as rainfall during the months of December through March, with occasional summer thunderstorms associated with monsoon conditions. The average annual precipitation in the City is 15.32 inches, which is distributed mainly during the winter and spring seasons with a maximum average of 3.70 inches received during the month of February. The coolest month of the year is January, with an average monthly low of 44° Fahrenheit (F). The warmest month is July, with an average monthly high of 95° F. Temperatures range from about 38 to 100 degrees Fahrenheit annually.

4.9.2.2 Regional Hydrology

The City of Colton is located in the Santa Ana River Basin watershed, also known as a hydrologic basin. The river bisects the City along the east and south. The river is ephemeral and only contains water flows during winter and spring months when rain and snowmelt draining from the San Bernardino and San Gabriel mountains enter the river through storm channels. Flows also occur at isolated points where wastewater treatment plants have been developed that release treated water into the river. The City is also affected by Lytle Creek, a large channelized creek that traverses the northeasterly portion of the City. Stormwater

flows around the project area are controlled by a series of storm drains and channels that ultimately drain into the Santa Ana River.

Within the Santa Ana River watershed, the City is affected by the river as well as Lytle Creek and Warm Creek. Both these smaller water bodies are channelized as they flow through the City and into the river. Lytle Creek is operated as a flood control facility through this stretch of the creek.

4.9.2.3 Regional Ground Water

The project area is located approximately 1.5 miles north of the Santa Ana River channel within the Upper Santa Ana Valley Groundwater Basin which is bounded by the San Gabriel Mountains to the north, the Colton- Rialto fault to the east, Box Spring Mountains to the south and the Chino groundwater basin to the west. The groundwater basin is further divided into subbasins: the Bunker Hill Subbasin, the Riverside-Arlington Subbasin, the Rialto-Colton Subbasin, and the San Timoteo Subbasin. The project area is located in the Rialto-Colton Subbasin.

The Rialto-Colton Subbasin is divided into the Lytle, Rialto, and Colton groundwater management zones (GMZs), with the Lytle Creek and Rialto GMZs underlying portions of the City of Colton and the project area. Primary recharge areas include Lytle Creek in the northwest, Reche Canyon in the southeast, and the Santa Ana River in the east and south. The subbasin was adjudicated in 1961; however, the court decree is only in effect during times of drought. Management of the subbasin in the south has been adjudicated between the cities of San Bernardino, Rialto, and Riverside by the Western San Bernardino Watermaster. Lytle Creek serves as the principle recharge area for the northwestern part of the subbasin, while Reche Canyon provides recharge for the southeastern part and the Santa Ana River recharges the south-central portion. Percolation, underflow, and irrigation and septic returns provide recharge, to a lesser extent.

Groundwater is primarily found in alluvial deposits of Quaternary age composed of silt, sand, gravel and clay. The principal recharge sources in the region are Lytle Creek to the north, Reche Canyon to the southeast and the Santa Ana River to the south and east. The total storage capacity for groundwater within the subbasin is estimated to be 210,000 acre feet, and 120,000-acre feet within the Rialto portion to the west, and 93,000-acre feet contained within the Colton portion to the east.

4.9.2.4 Flood Hazard Areas

The project area is located in an area on the Federal Emergency Management Agency Flood (FEMA) Federal Insurance Rate Maps (FIRM) that is designated as Zone X, which is defined by

FEMA as an area of 0.2 percent annual chance flood, areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent chance flood. This is because the project area is not located in proximity to a body of water that would be subject to flooding. The FIRM panel that depicts this area of the City of Colton (Panel No. 86071C8678) shows that the entire area north of the I-10 Freeway is in this zone.

In addition, the project area is located in a relatively urban area where flood control facilities and storm drains are in place and flooding potential is minimal. Flood control facilities have been constructed to contain 100-year flood events within drainage channels such as the Lytle Creek Channel. With regard to the Santa Ana River, located approximately 1.5 miles south and east of the project area, FEMA mapping has been updated to reflect upstream dam improvements (Seven Oaks Dam) east of the City of Highland, approximately 15 miles east of the project area. The FIRM for the area shows that the area around the Santa Ana River is still subject to 100-year flood hazards, however, the project area is outside this area so would not be affected by flooding of the Santa Ana River.

4.9.2.5 Project Area Hydrology

For the purpose of the *Preliminary Hydrology Report* prepared for the CHCCSP project area, the project engineer divided the study area into subareas A through H in order to evaluate the drainage patterns within the larger 528-acre Hydrology Study Area. This area encompasses an area larger than the CHCCSP project and includes the area bounded on the north by San Bernardino Avenue, on the east by Hermosa Avenue, on the south by the I-10 Freeway, and on the west by Sycamore Avenue (the boundary between the cities of Colton and Rialto). The subareas are identified as individual drainage areas with unique features that are evaluated separately, then within the context of the larger Hydrology Study Area in order to determine the storm drain infrastructure needs for the CHCCSP project area to support future development.

The project area comprises approximately 373 acres and is located within the City of Colton north of Interstate Highway 10 and south of San Bernardino Avenue, between Hermosa Avenue to the east and Riverside Avenue to the west. The hydrology study area is shown in Exhibit 4.9-1, *Existing Hydrology*. The hydrology study area consists of 528 acres including the project area, the adjacent ARMC and Hermosa Gardens Cemetery. The study area overlaps two watershed areas abutting along Pepper Avenue; San Bernardino County Flood Control watershed areas 3-3, and 3-5. Both watershed areas rely heavily on surface flow and are a tributary to the Rialto Channel which lies just west of the project area, and carries flows to the Santa Ana River.

The project site has two tributary drainage areas which rely heavily on surface flow for drainage, due to the geography of the site most of the onsite runoff is retained within the watershed. The hydrology study area is divided into eight subareas as shown in Exhibit 4.9-1.

Subarea "A", is 155 acres, and makes up 30 percent of the study area. This area drains to the southwest, towards a low point on West Valley Blvd at the intersection with Sycamore Avenue. This street represents the boundary between the cities of Colton and Rialto. There are two existing catch basins at this location. One catch basin (CB1: W=4') is tributary to the Colton drain an 84-inch reinforced concrete pipe (RCP) line on Valley Blvd that connects to the Rialto Channel 1/3 of mile downstream. The other catch basin (CB2: W=7') acts as a culvert to relieve the sump of inundation and directs the run off down Sycamore Avenue through a curb opening. Approximately 55 percent of subarea "A" has existing commercial land uses located along Valley Blvd and Wildrose Avenue. The runoff is conveyed through curb and gutter towards the low point on Valley Blvd. The remaining 45 percent is composed of open vacant land covered with grasses and other ruderal vegetation with defined earthen swales. The runoff is conveyed across the vacant properties by sheet flow onto Valley Blvd and Wildrose Avenue where it is taken by curb and gutter towards existing catch basins at the intersection of Valley Blvd and Sycamore Avenue. A total Q_{100} = 240 cfs is conveyed towards this sump where it floods the intersections. Street capacity calculations show that Valley Blvd is approximately one (1) foot under water. The inlet capacities of catch basins 1 and 2 (CB1 and CB2) are about 14 cubic feet per second (cfs) and 25 cfs respectively, which provide little help in alleviating the flooding on Valley Blvd. The remaining run off ultimately overflows down Sycamore Avenue towards Interstate-10. An existing 36-inch corrugated metal pipe (CMP) relieves the flooding and conveys the flow across the freeway.

Subarea "B" is 43.69 acres and makes up 8.0 percent of the study area. This area drains by sheet flow across the vacant properties to the south and along the half width of Pepper Avenue towards Valley Blvd. The street flows are conveyed through curb and gutter towards a low point located on Valley Blvd approximately 400 feet west from the intersection with Pepper Avenue. Approximately 35 percent of this subarea is composed of commercial development with the remainder being vacant properties covered with grasses and other ruderal vegetation with defined earthen swales. A total Q_{100} = 76.55 cfs is conveyed towards the low point on Valley Blvd. The runoff is then conveyed into and adjoining vacant property just northerly of the low point for retention and infiltration.

Subarea "C" is 81.88 acres and makes up 16 percent of the study area. This portion of the project area drains to the southeast along Valley Blvd via curb and gutter. Approximately 15 percent of this subarea is commercial land use with the remainder being vacant properties

covered with grasses and other ruderal vegetation with defined earthen swales and sluggish pools. A total Q_{100} = 126.97 cfs makes its way down to the intersection of Valley Blvd and Hermosa Avenue and continues downstream.

Subarea "D" is 64.8 acres and makes up 12 percent of the study area. This portion of the project area has been developed with the ARMC and drains to the southeast. There is an onsite storm drain system which picks up flows around the property and ultimately discharges into a detention basin with an approximate volume of 10.6 acre feet (AF). A total Q_{100} = 174.4 cfs makes its way down to the detention basin with a total volume of 31.20 AF. This suggests that the basin must bleed into the 108-inch line located on Meridian Avenue.

Subareas E, F, G, and H are all located south of Valley Blvd. They are 7.5 acres, 8.73 acres, 12.40 acres and 5.81 acres respectively. These areas make up 6.5 percent of the study area and are developed with commercial uses. These areas drain towards existing 36-inch CMP culverts which direct flows across Interstate-10. Areas E, F, G, and H have a Q_{100} = 24 cfs, 31.74 cfs, 36.91 cfs and 21.21 cfs respectively.

In addition to the ARMC's onsite detention basin, the project area has one detention basin identified in the *Preliminary Hydrology Study* as Det-1. This is a 7-acre basin that makes up 1.5 percent of the study area. It is currently a detention basin that provides a recreational park at the bottom; George Brown Park located at the southwest corner of San Benrardino Avenue and Eucalyptus Avenue. Approximately 84 cfs enter the basin from Tracts 13424 & 13471 located just north of San Bernardino Avenue. A total Q_{100} = 96.54 cfs will confluence at the basin which requires 17.6 AF of retention and the basin provides 17 AF. Analysis of the capacity of the basin has not been done, however initial inspection suggest that the existing volume of the basin is adequate to detain these flows due to the fact that the basin will bleed out a portion of these flows through the 36-inch corrugated steel pipe (CSP) located at the spill way along with a 6-inch diameter riser with 2-inch x 3-inch square holes cut at the sides. These flows will bleed into HYD-2 and HYD-3 (see below) where they are spread and retained for percolation.

In addition to subareas A through H, other subareas (Hyd-1 through Hyd-4) characterize the project area.

Sub Area Hyd-1 consists of 17.97 acres or 3.5 percent of the study area. This section of vacant land is located on the east side of Wildrose Avenue just north of Valley Blvd where Colton Recreational Lake once existed (see Section 4.5 Cultural Resources for a description of this previous use). A portion of the site contains a retention basin with an approximate volume capacity of 16 AF. This sub area has the potential to receive Q_{100} = 51.24 cfs, which would

require 8.36 AF for retention. Therefore, no runoff is expected to leave this area, as it can be fully retained onsite.

Sub Area Hyd-2 consists of 70.53 acres or 13.5 percent of the study area and is currently located on the existing Colton Golf Course. Retention basins of various sizes are located throughout the golf course with a total volume capacity of 32 AF. This subarea has the potential to receive Q_{100} = 165.84 cfs, which would require 32.42 AF for retention. Even though there is a small difference in required volume, the remaining excess volume can be spread out onto the golf course. Therefore, no runoff is expected to leave this subarea, as it can be fully retained onsite.

Sub Area Hyd-3 consists of 22.36 acres or 4.5 percent of the study area and is located on the south side of San Bernardino Avenue just east of Eucalyptus Road. The site is composed of open grass fields, dirt trails and topographical depressions having the potential to form sluggish pools of water from rainstorm events. This sub area has the potential to receive Q_{100} = 69.53 cfs, which would require 10.4 AF for retention. Although the total volume capacity for all depressions is estimated to be 9.7 AF, the remaining difference in volume could be retained as it infiltrates and spreads throughout the project area.

Sub Area Hyd-4 consists of 30.94 acres or 5.8 percent of the study area and is bordered by West Olive Street to the north, West C Street to the south, Hermosa Avenue to the east and Meridian Avenue to the west. This subarea contains open grass fields, the Hermosa Cemetery and an onsite retention basin with a total volume capacity of 12 AF. The subarea has the potential to receive Q_{100} = 91.2 cfs which would require 14.4 AF for retention. However, the *Preliminary Hydrological Report* concludes that all 14.4 AF could be attained by spreading water infiltration over the cemetery against its block walls.

4.9.2.6 Regulatory Framework

Federal

Clean Water Act

The CWA employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges (known as “point sources”) into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff, the principal nonpoint source. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.” Evolution of CWA programs over the last decade has included a shift from a program-by-program, source-

by-source, and pollutant-by-pollutant approach to more holistic watershed-based strategies. Under the watershed approach, equal emphasis is placed on protecting healthy waters and restoring impaired ones. Major CWA programs include water quality standards, anti-degradation policy, water body monitoring and assessment, total maximum daily loads (TMDLs), the National Pollutant Discharge Elimination System (NPDES) permit program for point sources, Section 319 program for nonpoint sources, and other sections that regulate water quality.

Important applicable sections of the CWA that are germane to the development of projects within the CHCCSP project area include the following:

- Section 301 prohibits the discharge of any pollutant by any person, except as in compliance with Sections 302, 306, 307, 318, 402, and 404 of the CWA. Sections 303 and 304 provide for water-quality standards, criteria, and guidelines.

- Section 401 requires an applicant for any federal permit that proposes an activity which may result in a discharge to "waters of the United States" to obtain certification from the State that the discharge will comply with other provisions of the Act. For development projects proposed within the WVSPA, the Santa Ana Region Regional Water Quality Control Board (RWQCB) must provide a certification.

- Section 402 establishes the National Pollution Discharge Elimination System (NPDES) a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. This permit program is administered by the RWQCB, and is discussed in detail further in this text.

- Section 404 establishes a permit program for the discharge of dredge or fills material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

National Flood Insurance Program

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 NFIP. These maps delineate flood hazard zones for each project site. 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 natural and beneficial floodplain values.

National Pollutant Discharge Elimination System (NPDES)

The federal Clean Water Act (CWA) establishes requirements for the discharge of urban runoff from municipal separate storm sewer systems (MS4) under the National Pollutant Discharge Eimination Program (NPDES). Regionally, stormwater runoff from urban areas including project sites and adjacent roads carries urban pollutants that are commonly transported to water bodies including the Santa Ana River in storm drains through which stormwater and urban runoff are discharged into waters of the United States (Waters of the US) that are located within the Santa Ana Region. Owners and/or operators of storm water and urban runoff conveyance systems, including flood control facilities are the County of San Bernardino and local cities, including the City of Colton, within the Santa Ana Regional Water Quality Control Board (RWQCB) region. These operators must obtain a NPDES permit and develop/implement a stormwater management program (SWMP). The County of San Bernardino updated its SWMP and the RWQCB adopted Waste Discharge Requirements (WDRs) for the County (permittee) and each of the cities within the County within the region (co-permittees) in January 2010 (Order No. R8-2010-0036, NPDES No. CAS 618036). The Order is commonly referred to as the MS4 Permit. This Order renewed waste discharge requirements for the discharge of urban storm water from areas of San Bernardino County within the Santa Ana Region to waters of the US. The NPDES permit is valid through January 2015. See below under State of California for further discussion of NPDES requirements.

State of California

California Porter-Cologne Water Quality Control Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code Section 13000, et seq.) provides the basis for water quality regulation within California. The Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater in the State. Waste discharge requirements (WDRs) resulting from the Report are issued by the RWQCB, and is discussed further in this text. In practice, these requirements are typically integrated with the NPDES permitting process.

The State Water Resources Control Board (SWRCB) carries out its water quality protection authority through the adoption of specific Water Quality Control Plans (Basin Plans). These plans establish water quality standards for particular bodies of water. California water quality

standards are composed of three parts: the designation of beneficial uses of water, water quality objectives to protect those uses, and implementation programs designed to achieve and maintain compliance with the water quality objectives.

NPDES Stormwater Permitting

The Santa Ana RWQCB administers the NPDES stormwater permitting program for construction activities. Construction activities disturbing one acre or more of land are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (Permit 99-08-DWQ). For qualifying projects, a project applicant must submit a Notice of Intent (NOI) to the RWQCB that covers the General Construction Permit (GCP) prior to the beginning of construction. The GCP requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction and a Water Quality Management Plan (WQMP) for long-term operation of a site, both of which must be completed before construction can begin.

Implementation of the Construction SWPPP starts with the commencement of construction and continues through the completion of the project. Upon project completion, the applicant must submit a Notice of Termination (NOT) to the RWQCB to indicate that construction is completed.

Projects less than one acre in size are not required to obtain a NPDES permit or provide a SWPPP. For these smaller projects, the RWQCB has developed a list of standard Best Management Practices (BMPs) that are designed to control and minimize the amount of runoff from sites and thus minimize the likelihood of pollution, erosion, and siltation impacting a site or the surrounding area.

Non Point Sources

Nonpoint sources (NPS) of pollution emanate from diffuse sources, such as street runoff coming from numerous paved areas, rooftops, yards and other urbanized surfaces. Section 319 of the 1987 amendments to the Clean Water Act (33 USC 466 et seq.) established the framework for reducing water pollution from nonpoint source activities. Section 319 requires each state to prepare a Nonpoint Source Management Plan and to conduct an assessment of the impact nonpoint sources have on the State's water bodies. In response to these requirements, SRWQCB adopted the Nonpoint Source Management Plan (NPSMP) in 1988 and the Water Quality Assessment in 1990. The NPSMP establishes a statewide policy for managing nonpoint source inputs to California's waters. The NPSMP received was upgraded in January 2000 when the 15 year Nonpoint Source Program Strategy and Implementation Plan was adopted.

Implementation of the NPSMP has been delegated to the nine RWCQBs with the SWRCB acting

as the monitoring and enforcement agency. This ultimately leads to the City's requirements to control NPS sources. The primary means by which the City implements the NPSMP is through the requirements of its MS-4 permit and by requiring preparation of WQMPs by project proponents for new development and significant redevelopment projects. Compliance with these requirements are the primary means by which the City complies with the NPSMP program.

County of San Bernardino and City of Colton

Water Quality Management Plan Procedures

The Santa Ana RWQCB requires post-construction BMPs to be implemented for new development and significant redevelopment, for both private and public agency projects. Post-construction BMPs are proposed and submitted to the RWQCB for review and approval in the form of a WQMP. In order to ensure that WQMPs are consistent throughout the County, the County implemented its *Technical Guidance Document for Water Quality Management Plans* which went into effect in September 2013. Because the City of Colton is a Co-permittee on the County's MS4 permit (NPDES No. CAS6180036, Order No. R8-2010-0036), all private and public agency development projects, as well as projects where a significant portion of a developed site would be redeveloped, must have a WQMP. The 2013 *Technical Guidance* document replaces in its entirety, RWQCB's *2005 Model WQMP Guidance* (including the 2012 revised document).

The 2013 *Technical Guidance* document supports the 2010 MS4 Permit which significantly changed the requirements applicable to development activities by substantially changing how Low Impact Development (LID) practices are incorporated into development projects. The 2010 MS4 Permit specifically states that:

> *"This Order requires project proponents to first consider preventative and conservation techniques (e.g., preserve and protect natural features to the maximum extent practicable) prior to considering mitigative techniques (structural treatment, such as infiltration systems). The mitigative measures should be prioritized with the highest priority for BMPs that remove storm water pollutants and reduce runoff volume, such as infiltration, then other BMPs, such as harvesting and use, evapotranspiration and biotreatment should be considered. To the maximum extent practicable, these LID BMPs must be implemented at the project site. The Regional Board recognizes that site conditions, including site soils, contaminant plumes, high groundwater levels, etc., could limit the applicability of infiltration and other LID BMPs at certain project sites. Where LID BMPs are not feasible at the project site, more*

> *traditional, but equally effective control measures should be implemented. This Order provides for alternatives and in-lieu programs where the preferred LID BMPs are infeasible* (RWQCB Order No. 2010-0036, NPDES No. CAS618036, Section II.G.6)."

The USEPA website http://water.epa.gov/polwaste/green/ describes LID as an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions. LID has been characterized as a sustainable stormwater practice by the Water Environment Research Foundation and others.

Each Co-permitee, including the City of Colton is required to establish a Local Implementation Plan (LIP) for compliance with the MS4 Permit. The LIP provides information regarding how the WQMP development process is implemented within the local jurisdiction and identifies any additional WQMP development requirements, i.e., in addition to the requirements identified in this document. The City adopted the Model WQMP Procedures and has undated these to reflect the most recent water quality requirements as set forth in the 2013 *Technical Guidance* document.

4.9.3 Environmental Impacts and Mitigation Measures

4.9.3.1 Thresholds of Significance

According to the California Environmental Quality Act (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) Violate any water quality standards or waste discharge requirements (WDRs);
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 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;
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 stormwater 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, which would impede or redirect flood flows;
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding caused by failure of a levee or dam; and/or
i) Inundation by seiche, tsunami, or mudflow.

4.9.3.2 Impact Analysis

a and f *Water Quality Standards and Requirements*

Violations of water quality standards or waste discharge requirements, or degradation of water quality can result in potentially significant impacts to water quality and result in environmental damage in the Santa Ana River if untreated stormwater flows leave development sites and enter the storm drain system that outlets to the river. The Santa Ana RWQCB requires post-construction BMPs to be implemented for all new development, including redevelopment of existing developed sites.

Construction Activities

Violations of water quality standards or waste discharge requirements, or degradation of water quality can result in potentially significant impacts to water quality and result in environmental damage in the Santa Ana River. Pollutants transported in stormwater runoff most likely to occur during onsite construction would be in the form of sediment loss created from erosion due to soil disturbance, and from stormwater mixing with construction materials. However, because the RWQCB has adopted strict regulations for the control and release of stormwater into the Santa Ana River, project proponents will be responsible for preparing a Construction SWPPP that must be implemented throughout the project construction period. The SWPPP must describe best management practices (BMPs) for the control and treatment of runoff from the project site for the following:

- Soil Stabilization (erosion control);
- Sediment Control;
- Tracking Control;
- Wind Erosion Control;
- Construction Site Management;
- Non-Stormwater control; and
- Waste Management and Materials Pollution Control.

A copy of the SWPPP prepared by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP) must be maintained and updated at the project site and available for review during the entirety of the construction period.

Operations

The project area contains 63.3 acres of non developable property that will be held in conservation for the DSF. The remaining 310.7 acres are either already developed or can be developed with urban uses. Proposed development in the CHCCSP project area will create two substantial changes in effecting water quality. First, the conversion of existing vacant land into impervious surfaces (i.e., parking lots, streets, rooftops, etc.), can neither absorb water nor remove pollutants. Second, future project development would create new sources of pollution from various new land uses which will bring proportionally higher levels of automobile use; use of landscaping soil amendments, fertilizers and pesticides, etc.; and other pollutants. There are two issues that arise under operations of future projects in the project area:

1. Management of point source pollutants associated with specific sources; or
2. Management of stormwater flows from non point sources such as urban areas.

Point Source Pollution

Point source pollution is water pollution that comes from a single, discrete place such as a storm drain or wastewater treatment plant. The Clean Water Act specifically defines a "point source" in section 502(14) of the Act. That definition states:

> *The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.*

Non-Point Source Pollution

Accidents, poor site management, or negligence by property owners and tenants could result in accumulation of pollutants on parking lots and loading and storage areas, or result in contaminated discharges directly into the storm drain system. In addition, the southern California climate is such that the average annual rainfall is around 17 inches most of which fall during winter months. This allows pollutants such as petroleum products, and herbicides/pesticides/insecticides that wash off landscaped areas to accumulate on the public streets including in gutters. These are all known as non-point source pollutants and a large portion of these enter storm drains during the first rain event after a long period with no rain known as the "first flush".

The MS4 Permit requirements applicable to the planning area are designed to reduce non-point source pollutant loading through the implementation of BMPs and other control measures that minimize or eliminate pollutants from urban runoff, thereby protecting downstream water resources. These requirements include the identification and implementation of LID BMPs. BMPs implemented to address residential pollutant sources generally revolve around educational programs. Commercial and industrial projects are subject to annual inspections to ensure implementation of BMPs and educational programs.

Low Impact Development (LID)

The City currently inspects all commercial and industrial development and enforces structural and non-structural BMPs as adopted in site specific WQMPs to ensure compliance with the City's MS4 requirements and to eliminate such discharges. Future non-residential development projects in the CHCCSP project area will be subject to the same monitoring and enforcement procedures.

Violations of water quality standards due to urban runoff can be prevented through the continued implementation of existing regional water quality regulations and through the successful implementation of the City's local water quality control standards imposed on new development and redevelopment of existing developed sites over the long-term, through its Local Implementation Plan. Low Impact Development (LID) preventive measures that are consistent with the MS4 Permit and that may be incorporated into a project's WQMP included but are not limited to the following:

- Incorporate landscape designs that promote water retention and evapotranspiration, such as through soil development and grading techniques, and incorporation of water conservation elements such as use of native plants;
- Include permeable surface designs in parking lots and areas with low traffic;

- Allow natural drainage systems for street construction and catchments (with no drainage pipes), and allow grassy swales and ditches;
- Require parking lots to drain to landscaped areas to provide treatment, retention, or infiltration;
- Reduce curb requirements where adequate drainage, conveyance, treatment and storage are available to allow stormwater to drain into landscaped areas;
- Incorporate rainwater harvesting and use;
- Allow building of narrow streets and provide alternatives to minimum parking requirements;
- Consider vegetated landscape as an integral element of streets, parking lots, playgrounds and buildings as a stormwater treatment and retention system; and
- Consider and facilitate application of landform grading techniques and revegetation as an alternative to traditional approaches, particularly in areas susceptible to erosion and sediment loss such as hillside development projects.

The CHCCSP includes Development Regulations and Community Design Guidelines that will guide future site planning efforts including landscaping requirements. For example, the CHCCSP conceptual landscape plans for site development, as well as landscaping along public streets in the project area, show that over 2,500 trees would be planted in the project area at buildout. This, in combination with related landscaping along property frontages, in setbacks, and in parking lots, would meet the intent of LID BMPs to provide natural retention areas, open spaces medians, parking islands, etc. Finally, all development projects, including developed sites that are being significantly redeveloped, would be required to retain stormwater and irrigation water on-site, and other BMPS for pre-treatment of this water prior to entering the basin would also ensure that pollutants generated in the project area would be minimized and prevented from entering the Santa Ana River.

The City will require that each site is responsible for controlling its own hydrology and drainage in compliance with the MS4 permit. All sites must retain stormwater flows on site and treat stormwater in accordance with an approved WQMP that incorporates LID BMPs similar to those outlined above. The County's *Technical Guidance* document identifies LID practices to apply during site planning and development phases of a project as shown in Table 4.9-1, *Application of LID Practices to Development Phases*.

In addition, Table 4.9-2, *LID Preventive Measures to Consider During Site Planning and Design Phases* lists a number of LID preventive measures that can be incorporated into new development projects as well as into existing developed sites undergoing redevelopment.

Table 4.9-1 Application of LID Practices to Development Phases

	LID Practice	
Development Phase	**Preventive Measures**	**Mitigative Measures**
Site Planning and layout	Preserve natural infiltration capacity Preserve existing drainage patterns Protect existing vegetation and sensitive areas	Not applicable, but extensive application of preventive measures will reduce the mitigative measures required below
Site and Project Design	Minimize impervious area Disconnect impervious areas	Infiltration BMPs Capture/Use BMPs Vegetated BMPs
Construction	Minimize construction footprint Minimize unnecessary compaction Minimize removal of native vegetation	Re-vegetate disturbed areas
Post-Construction	Implement source control BMPs Restore original soils and use appropriate vegetation	Maintain BMPs appropriately

Source: San Bernardino County Technical Guidance Document for WQMPs, September 2013 Table 5-1.

The County recognizes that the ability to incorporate preventive measures into an existing developed site undergoing redevelopment can be more difficult. For these projects, attention to specific types of preventive measures, such as minimizing new impervious area and disconnecting existing impervious areas can provide substantial stormwater management benefits.

Therefore, long-term water quality impacts due to non-point sources can be limited to less than significant levels with the implementation of project site specific WQMPs and the City's annual site inspections of non-residential sites.

In addition to the requirements placed on individual projects under the City's MS4 permit, Implementation of HWQ-1 will be required for all new development projects in the CHCCSP project area including new projects on existing developed properties. Mitigation HWQ-1 requires future projects in the CHCCSP project area will be subject to development standards set forth in the CHCCSP including the development and implementation of Landscape Management Plans (LMPs). The City's goal in requiring these plans is to reduce the amount of discharge of herbicides, pesticides, fertilizers and other contaminants to local waterways. In this area, the local waterway is the Santa Ana River where storm drains in the City of Colton ultimately drain. Mitigation measures are included at the end of this section and address all of the impacts identified for Hydrology and Water Quality.

Table 4.9-2 LID Preventive Measures to Consider During Site Planning and Design Phases

LID Preventive Measures	Project Phase	
	Planning	**Design**
Maximize natural infiltration capacity	• Avoid locating constructed elements on highly permeable areas • Cluster constructed elements in the least permeable areas	• Use alternative permeable or porous building materials where allowed by code
Preserve existing drainage patterns and increase time of concentration	• Avoid channelization of natural drainages • Where channel engineering is necessary, include sinuosity to increase time of concentration • Establish setbacks and buffer areas from natural waterbodies • Retain natural depressions in project area	• Avoid channelization of natural streams • Where channel engineering is necessary: • Include mild slopes, • Increase channel roughness to increase time of concentration • Use pervious channel linings to increase infiltration
Protect existing vegetation and sensitive areas	• At the outset, establish areas within project site that should remain undisturbed • Establish setbacks and buffer zones around sensitive areas • Incorporate rather than eliminate established vegetation throughout site layout	• Design site layout to protect sensitive areas
Minimize impervious area	• Reduce footprint by: • Building vertically rather than horizontally • Reducing road and sidewalk widths to MEP • Clustering constructed elements to preserve open space • Minimizing lot setbacks to reduce driveway lengths	• Install sidewalks only one side of private roadways • Use alternative permeable or porous building materials where allowed by code • Reduce overall parking lot size by creating smaller parking spaces for compact cars
Disconnect impervious areas	• Plan site layout and mass grading to allow runoff to be directed to permeable areas, e.g., natural retention areas, open spaces, medians, parking islands, planter boxes • Avoid channelization of natural on-site streams	• Incorporate permeable areas throughout project site to accept runoff • Design roof downspouts to drain to pervious areas • Use alternative permeable or porous building materials where allowed by code

Table 4.9-2 LID Preventive Measures to Consider During Site Planning and Design Phases (continued)

LID Preventive Measures	Project Phase	
	Planning	Design
Integrated with planning	• Incorporate preventive measures that are consistent with the Watershed Action Plan • Determine if any approved regional BMP projects are constructed downstream and included in WAP, prior to site design planning	• Use all design requirements included in the Watershed Action Plan for watershed based BMPs

Source: San Bernardino County Technical Guidance Document for WQMPs, September 2013 Table 5-2.

b) Groundwater Supplies

The demand and reliability of groundwater supply will be a significant component of most projects and phased developments within the CHCCSP project area. Water availability for the western section of the project area (west of Pepper Avenue) will be provided by West Valley Water District's existing groundwater wells, while the eastern section of the project area (east of Pepper Avenue) will be provided by the City of Colton's existing groundwater wells. Both agencies currently extract groundwater from the San Bernardino, Colton, and Riverside Basin Areas and receive surface water from the State Water Project (SWP).

Analysis of Water Supply Assessment (WSA) reports for the West Valley Water District and the City of Colton Water District indicate that current demand and future availability of water resources for the project area will not impact groundwater supply or recharge capabilities. This issue is discussed in greater detail in the Water Supply Analysis contained in Section 4.16 *Utility Systems*. It is the conclusion of both water agencies that water supply needs for future development within the WVSPA project area can be met with existing water supplies which consist of a combination of surface water and ground water.

c – e) Drainage Patterns

There are no streams or rivers on or near the CHCCSP project area. However, future development in the project area would result in the alteration of drainage patterns and infiltration characteristics of the project area, that could increase both the volume and discharge rates of stormwater runoff, which could contribute to downstream flooding or exceed the capacity of current storm drain systems.

Proposed Drainage Conditions

Exhibit 4.9-2, *Proposed Hydrology*, shows the proposed hydrology scenario in the CHCCSP project area. Exhibit 4.9-3, *Master Storm Drain Plan*, shows the proposed future conditions in the CHCCSP project area to accommodate existing and proposed development.

Off-site Drainage Subareas

As shown on Exhibit 4.9-2, subareas "A", "B", and "J" are all outside the City of Colton and within the City of Rialto. Area "A" is 19.79 acres and makes up 3.7 percent of the hydrology study area. Subarea A is composed of grassy vacant properties with some defined earthen swales. The CHCCSP Master Storm Drain Plan shows that flows from subarea A will be picked up by the existing 78-inch storm drain lateral running north-south along the boundary between the two cities and tied into the existing 84-inch Colton storm drain that runs east-west along Valley Blvd. A total Q_{100} = 34.84 cfs would be introduced into this existing system. Subarea "B" is 16.47 acres and makes up 3.1 percent of the hydrology study area; this subarea is approximately 50 percent commercial land use, also located in the City of Rialto but still tributary to the Master Storm Drain Plan. A total Q_{100} = 35.76 cfs from this subarea would be introduced into the existing system from this subarea. Area "J" is 19.0 acres and makes up 3.6 percent of the hydrology study area, this subarea is composed mainly of commercial land uses. A total Q_{100} = 47.21 cfs makes its way to the low point on Valley Blvd at Sycamore Avenue. The flows from subarea "J" will confluence with the street flows coming westerly down Valley Blvd.

On-site Drainage Subareas

Subarea HYD-2 is 70.53 acres which make up 13.5 percent of the hydrology study area is located between San Bernardino Avenue on the North, Valley Blvd on the South, Pepper Avenue on the east, and the City limit on the west. Planning areas within this subarea are planning areas 1 through 9, 11 through 15, and slivers of planning areas 16 and 18. Proposed future uses are composed of medium density residential, open space for habitat conservation and a park, business parks and retail mixed use. With the exception of the open space for habitat conservation, each of these proposed sites will be required to reduce peak flows through the development of on-site detention basins. In this subarea, properties would be graded to drain to the southwest where inlets will be placed at the intersections with Wildrose Avenue. The storm drain system will then run along Wildrose Avenue and ultimately connect to the existing 84-inch Colton storm drain on Valley Blvd as shown in Exhibit 4.9-3. The flow coming down towards the existing Colton drain is Q_{100} = 219.58 cfs, so stormwater detention required of each new development project will reduce the peak flow to 135 cfs which will be introduced to the extension of the Colton storm drain.

Subarea HYD-5 is 125.1 acres which make up 23.7 percent of the hydrology study area. This subarea is located between San Bernardino Avenue to the north, Valley Blvd to the south, and Eucalyptus Avenue to the west. East of Pepper Avenue, the subarea skirts the ARMC site on the north along San Bernardino Avenue and south along Valley Blvd, then east of Meridian Avenue. This subarea encompasses planning areas 16, 18-19, 21, 23 and portions of planning areas 21 and 24. Land uses in these planning areas will be composed of retail, office mixed use and open space for habitat conservation. Runoff will be conveyed through curb and gutter down towards Valley Blvd where a proposed storm drain system will pick up the flows and convey them into a retention basin located in Planning Area 20, south of Valley Blvd, with a volume of approximately 60 AF. The retention basin will be an interim basin until the 108-inch line (Storm Drain 3-5) is connected downstream. Once the connection is made the retention basin would no longer be needed and sites in Planning Area 20 can be developed with retail uses.

The remaining 31.37 percent of the hydrology study area will remain unchanged from the existing conditions. These are subareas D, E, F, G, and H, all developed sites located south of Valley Blvd, and HYD-4 (Hermosa Gardens Cemetery) which is not a part of the CHCCSP project area but is a part of the hydrology study area because of its proximity to the CHCCSP project area. Similar to the properties outside the City in the City of Rialto's Gateway Specific Plan project area, if these subareas are redeveloped they will be subject to a 90 percent reduction from pre-existing flows further reducing its impact downstream.

In summary, the study of the existing hydrologic conditions revealed that about 28 percent of the study area is in full retention of its run off, significant retention is visible in the aerial of the area. The remainder of the study area relies heavily on surface and street flows as its drainage system. There are currently two storm drain systems serving the two watershed areas that affect the project area. The 84-inch Colton drain that runs south along the border between the cities of Colton and Rialto, the west on Valley Blvd and connects to the Rialto channel at Sycamore Avenue. There are extensions to this storm drain that are proposed per the San Bernardino County Drainage Master Plan (Project 3-3) lines I-6 and I-7. The other storm drain line is a 108-inch drain that runs south along Meridian Avenue, then east on Valley Blvd; this drain does not currently have an outlet (Project 3-5). There are future plans to connect this storm drain to the Rialto channel with a culvert to cross the I-10, once funding is provided. There is also an existing basin which receives flows up stream of the hydrology study area, and research shows approximately 84 cfs is expected from that basin.

Flooding is also reported at the intersections of Valley Blvd at Sycamore Avenue and Valley Blvd at Pepper Avenue. The flooding is due to a backwater condition caused by the undersized Rialto Channel; no improvements proposed for this project will reduce or eliminate the flooding at these intersections. However, all future development in the CHCCSP project area will be

required to detain all flows in excess of the sites' existing runoff, in order to not exacerbate an existing condition.

Planning areas 13 and 14 at the southwest corner of San Bernardino Avenue and Eucalyptus Avenue are currently used as a detention basin/recreation park and development of these areas will require that a storm drain line be constructed and connected to the existing 84-inch Colton Drain with capacity to accept the Q_{100} = 84 cfs that is currently being discharge into the detention basin. The detailed engineering design for the storm drain system will refine the design currently shown on the conceptual storm drain plans (Exhibit 4.9-3). The facilities will be sized to meet the current requirements for landowners within the project area based on the proposed residential and park land uses and will meet the City of Colton and County of San Bernardino standards.

The remaining 31.37 percent of the study area composing areas: D (ARMC site), E – H (area between Valley Boulevard and the I-10 freeway) and HYD-4 (Hermosa Cemetery) will remain unchanged from the existing conditions. Therefore, should these areas be re-developed; a 90 percent reduction in pre-existing flows shall be implemented to these areas, thereby reducing drainage impact downstream.

The City of Colton and the San Bernardino County Flood Control District (SBCFCD) have joint responsibility in implementing the Master Storm Drain Plan for the area. The SBCFCD has responsibility over regional channels, detention facilities and debris basins while the City of Colton has responsibility over acceptance, maintenance, and master plan design of the local drainage collection systems, local detention basins, and storm drain infrastructure, which carries runoff to regional facilities operated by the SBCFCD. The Preliminary Hydrology Report prepared for the CHCCSP (Appendix J) describes a conceptual Storm Drain Plan for the CHCCSP project area, which will be supplemental to the Master Storm Drain Plan. Engineers from the City of Colton and the SBCFCD are to conduct analysis, review and modification of the proposed Master Storm Drain Plan prior to joint approval and incorporation into the Master Storm Drain Plan for this region.

g - h) Flood Hazards

The CHCCSP project area is located in an area on FEMA maps designated as Zone X, which is defined by FEMA as an area of a 0.2 percent annual chance flood, areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent chance flood. This is because the project area is not located in proximity to a body of water that would be subject to flooding. . However, the project area is highly urbanized and is not located downstream from a

watercourse with floodwaters controlled by a dam or levee. The Santa Ana River is located downstream from the project area, and Lytle Creek, whose channel flows southerly and easterly, is located east of the project area. Therefore, impacts associated with flooding of a river or creek is minimal. All existing storm drains (i.e., Colton drain) and channels (i.e., Rialto Channel) are located underground or below surface levels, and future storm drain will also be located underground. On individual project sites that are larger (multi-acre), on-site retention basins may be required on a project by project basis; these basins are generally shallow and can be designed with adequate freeboard to retain a 100-year flood. There is a retention basin proposed in planning areas 20 at the southwest corner of Pepper Avenue and Valley Blvd. Therefore, the project area's exposure to levees or dams for storm drainage control is less than significant. Furthermore, the establishment of proposed storm drainage design and infrastructure to the project area would eliminate the possibility of the project of being located in a flood zone.

With regard to the project area being affected by a seiche, tsunami, or mudflows, the project area is not located near a body of water that could surge during an earthquake causing a seiche or tsunami. Any basins developed in the project area would be a designed retention basin so that stormwater would not be standing in the basin for long periods, thus minimizing the potential for seiche to occur in one of the basins. The project site is located in a highly urbanized area and not near any open areas that could generate mudflows.

4.9.3.3 Mitigation Measures

In addition to the requirements placed on individual projects under the City's MS4 permit, Implementation of HWQ-1 will be required for all new development projects in the CHCCSP project area including new projects on existing developed properties.

HWQ-1 Future projects developed in the CHCCSP project area shall be subject to the development standards set forth in the Specific Plan including the development and implementation of Landscape Management Plans (LMPs) for landscaped areas with the goal of reducing potential discharge of herbicides, pesticides, fertilizers, and other contaminants to local waterways. All contractors involved in project-related landscaping conducted during individual phases of development, as well as maintenance of landscaping following project completion, shall complete their work in strict compliance with the LMP. Project developers shall be responsible for ensuring that requirements of the LMP are provided to and instituted by future project tenants following project completion. A licensed landscape architect or architectural firm with experience in methods to reduce or eliminate the use of landscape chemicals that could cause adverse effects to the environment shall prepare the LMP. At a minimum,

an LMP shall:

- Require that pesticides and fertilizers not be applied in excessive quantities, and only applied at times when rain is not expected for at least two weeks, in an effort to minimize leaching and runoff into the storm drainage system.
- Encourage the use of organic fertilizers and mulching of landscaped areas to inhibit weed growth and reduce water demands.
- Utilize native, perennial, drought-tolerant species of vegetation to minimize irrigation needs

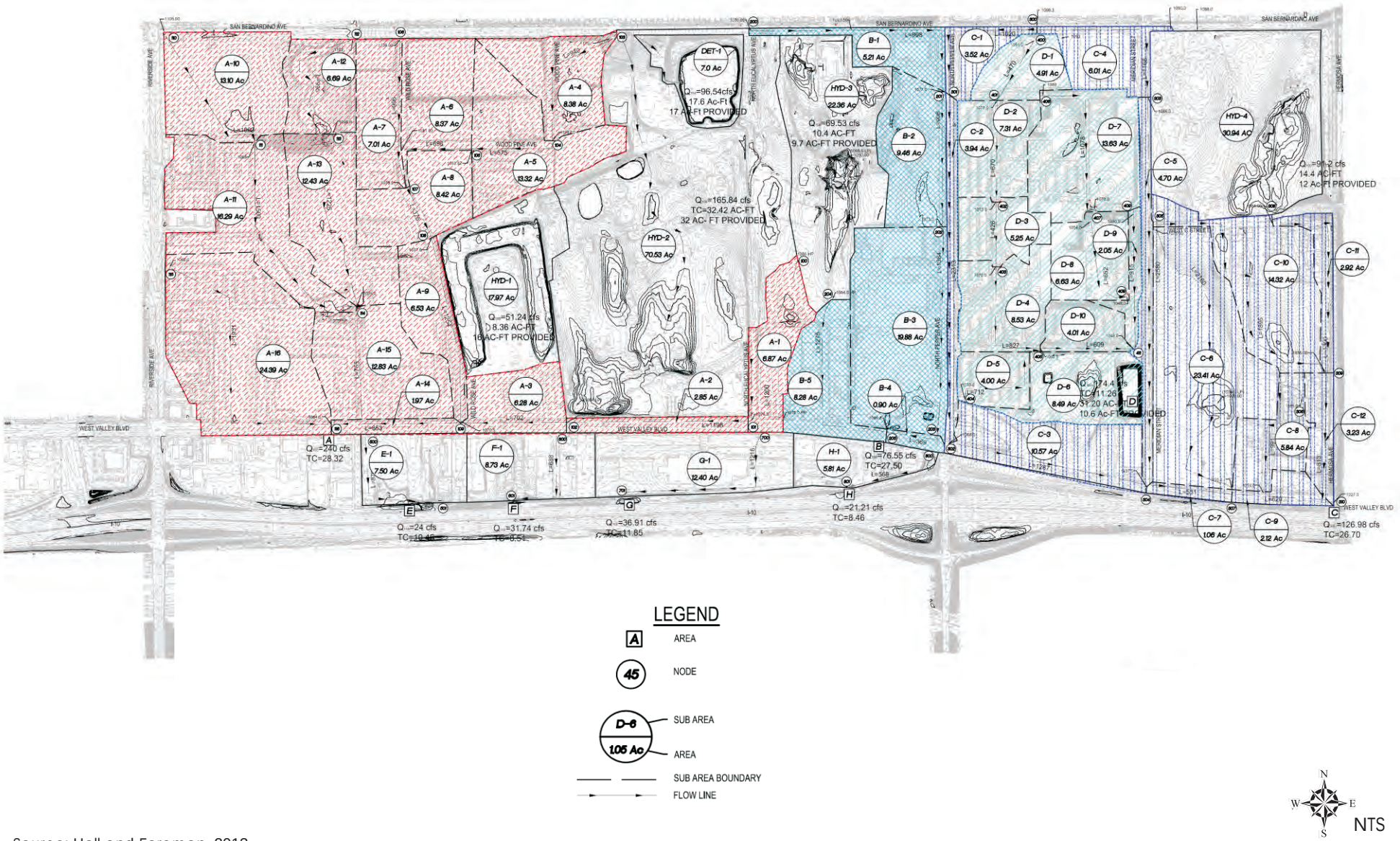
HWQ-2 Because the project area will be developed by a number of project proponents and not as one development project, each project proponent must provide a hydrology/ drainage study for each site being developed or redeveloped. Therefore, on a project by project basis, each project proponent shall provide a detailed engineering design for a project site and show how the site will be connected to the CHCCSP storm drain system to refine the design currently shown in the *Exhibit 4.9-3* prepared by Hall and Foreman, August 2013. The facilities shall be sized to meet current requirements based on proposed CHCCSP land uses to the satisfaction of the City Engineer.

4.9.3.4 Level of Significance After Mitigation

Compliance with the City's MS4 permit requirements and Mitigation Measure HWQ-1 will ensure that implementation of the CHCCSP will result in less than significant impacts to water quality with regard to WDRs.

Design and construction of adequate storm drains and retention basins in the project area as set forth in Mitigation Measure HWQ-2 will ensure that drainage will be adequately controlled and flooding in the project area will be minimal.

Finally, compliance with requirements of the Water Supply Assessments prepared for the CHCCSP project area will ensure that impacts to water supply are less than significant (see Section 4.16 for measures for adequate utilities and infrastructure).

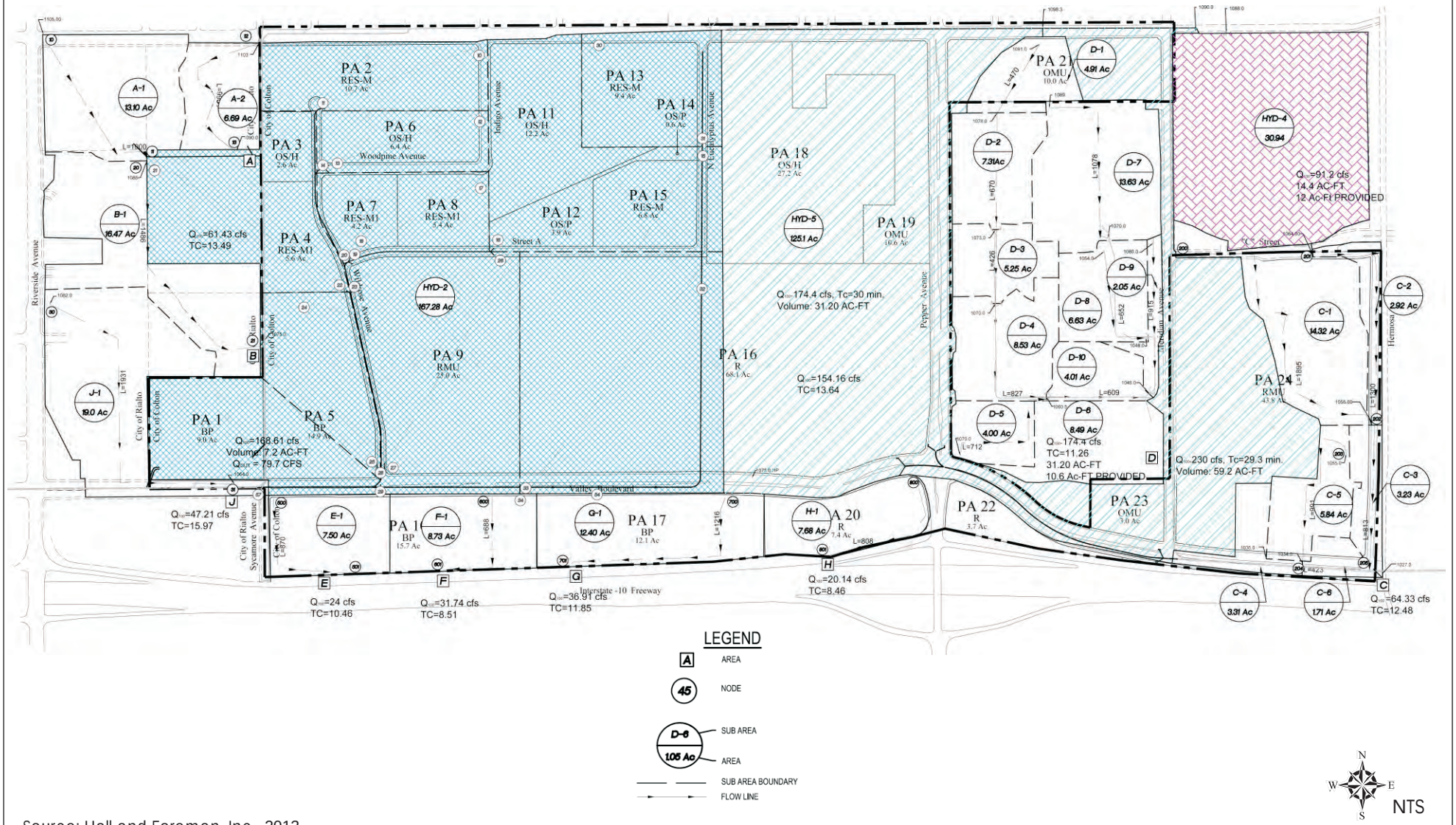


Source: Hall and Foreman, 2013

The Altum Group

Existing Hydrology
CHCCSP Environmental Impact Report

Exhibit 4.9-1

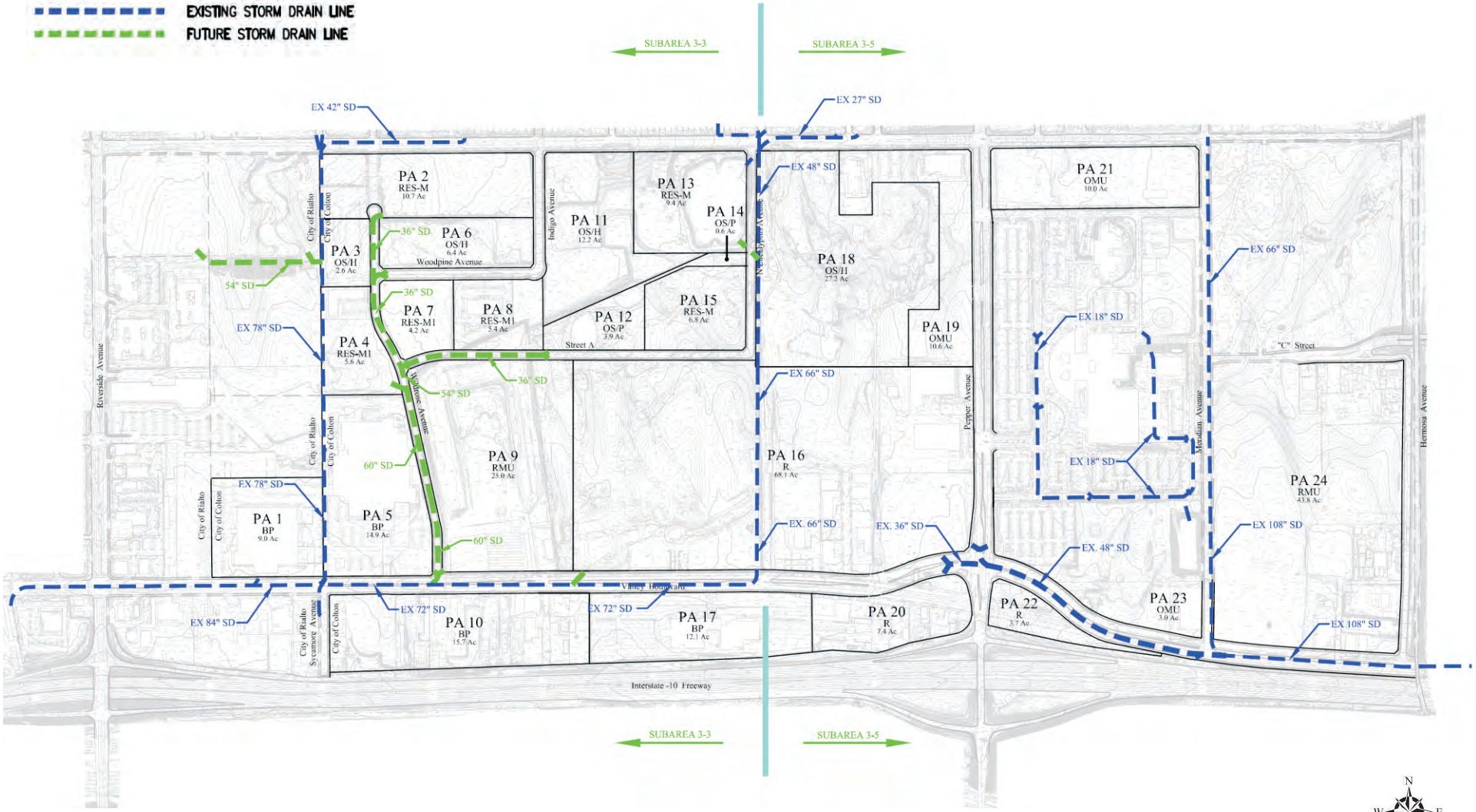


Source: Hall and Foreman, Inc., 2013

The Altum Group

Proposed Hydrology
CHCCSP Environmental Impact Report

Exhibit 4.9-2



Source: JHA Consulting 2013

NTS

The Altum Group

Master Storm Drain Plan
CHCCSP Environmental Impact Report

Exhibit 4.9-3

4.10.1 Introduction

The purpose of this section is to describe the existing setting regarding land use and planning and the potential effects from project implementation on existing land uses in the project area and surrounding area. Descriptions and analysis in this section are based on site reconnaissance and review of the City of Colton's General Plan, West Valley Specific Plan, and Zoning Ordinance. The CHCCSP serves as the Project amendment to the existing West Valley Specific Plan. The *Draft Colton Hub City Centre Specific Plan (CHCCSP),* prepared by JHA Consulting, Inc.*,* June 2013, was used in the preparation of this section.

4.10.2 Environmental Setting

4.10.2.1 Existing Conditions

Project Area

The CHCCSP project area is located within the City of Colton in San Bernardino County, California, Exhibit 3-1 in Chapter 3, *Project Description*, shows the project area location within the larger Inland Empire region. The project area is comprised of multiple parcels as identified by the County of San Bernardino's Office of the Assessor, generally situated in the northern ½ of Section 24,Township 1 South (T1S), Range 5 West (R5W) at latitude 34° 4.395' N, longitude 117° 21.517' W at the approximate center of the proposed project area.

The CHCCSP project area is comprised of approximately 373 gross acres and is bordered by San Bernardino Avenue to the north, Interstate 10 to the south, Hermosa Avenue to the east, and the City of Colton boundary with the City of Rialto. Exhibits 3-7, 3-8 and 3-9 in Chapter 3 show recent aerial photographs of the project area. What is apparent in the photographs is that over 60 percent of the project area is made up of vacant land, or open space associated with the Colton Golf Course in an otherwise urban environment. Exhibit 3-5, *Existing Land Uses*, shows an overlay of the aerial photograph with parcel boundaries and current land uses.

Currently, the project area is governed by the West Valley Specific Plan (WVSP), which was approved by the City in 1996. Exhibit 4.10-1, *Existing and Proposed Plans*, show the change, and acreage tabulation comparison of land use between the current WVSP and the proposed CHCCSP in the project area. All acreages listed in the table are derived from the San Bernardino County Assessor's parcel database.

Under the existing WVSP, the ARMC (Planning Area J) and Hermosa Gardens Cemetery (Planning Area L) were included in the Specific Plan. By 1999, the County had proceeded with the development of the ARMC and was deemed no longer necessary to be included as a component of the WVSP project area. Hermosa Gardens Cemetery was also excluded from the

CHCCSP, which the City also deemed as an unnecessary component of the WVSP. However, the northernmost 10 acres (CHCCSP Planning Area 21) and the 3 acres at the southeast corner of Valley Blvd and Meridian Avenue (CHCCSP Planning Area 23) will remain a part of the project area and uses within these planning areas are proposed for office mixed uses (OMU). The project area is delineated into planning areas that constitute their land use and zoning classifications, and current land uses as summarized below in Table 4.10-1, *Summary of Existing Land Uses and Designations Under the WVSP.*

Table 4.10-1: Summary of Existing Land Uses and Designations Under the WVSP

PA	Acreage	Designated Land Use	Existing Land Use
A	13	BIP – Business/Industrial Park	Vacant lots with one industrial park building
B	25	RR – Regional Retail	CSM Bakery Products, Inc., vacant retail warehouse
C	53	BIP – Business/Industrial Park	San Bernardino County offices, vacant swap meet site, abandoned private park, vacant lots
D	10	OS/P –Park	George E Brown Jr. Park and detention basin
E	49	OS/GC –Golf Course	Colton Golf Club (public)
F	38	RR – Regional Retail	Automotive sales (closed), automotive services, gas station, Bakers Drive-Thru
G	51	BIP – Business/Industrial Park	Abandoned Carpenter's Union building, abandoned King is Coming church, LDS book production, McNeilus truck specialty manufacturing, vacant lots
H	17	HRM – Hospitality Retail/ Medical Support	Machine shops, auto body shops, wholesale meat sales, vacant warehouse, vacant lot
I	4	BIP – Business/Industrial Park	Vacant lot with mobile equipment
J	63	BIP – Business/Industrial Park	Arrowhead Regional Medical Center, vacant lots
K	6	HRM – Hospitality Retail/ Medical Support	Piano store (closed), automobile sales, vacant lot
L	30	OS/C – Cemetery	Hermosa Memorial Park Cemetery
M	42	BIP – Business/Industrial Park	Residential, medical office, continuation high school, school district maintenance yard, RV repair and sales, spa sales
Total	**402**		

Source: CHCCSP, 2014.

Note: The WVSP included the ARMC and Hermosa Cemetery, both excluded from the proposed CHCC project area.

Surrounding Land Uses

The CHCCSP project area is located in the northwest quadrant of the City of Colton and the westerly boundary of the project area represents the boundary between the cities of Colton and Rialto. A summary of surrounding land uses is provided in Table 4.10-2 *Existing Surrounding Land Uses*.

Table 4.10-2: Existing Surrounding Land Uses

North	South	East	West
Single Family Residential (Low Density) Apartment Homes (High Density Residential) Supermarket anchored shopping center (General Commercial)	Interstate 10 Freeway Union Pacific Railroad hub (directly south of the I-10 freeway)	Residential Homes (Low Density) (Unincorporated) Residential Homes (Medium Density) (Unincorporated) Public storage facility (Light Industrial)	City of Rialto Vacant Lots (General Commercial) Light Industrial

Source: Field Survey, January 2014.

Single Family Residential Uses

Most of the existing residential development occurs adjacent to the project area's northern boundary along San Bernardino Avenue between Sycamore Avenue and Meridian Street. Residential development along San Bernardino Avenue consists mainly of single-family residential homes with the exception of a gated community of two-story apartments located on the north side of San Bernardino Avenue at the intersection with Wildrose Avenue. Most of these homes are ten to twenty years in age and are two-story design with the exception of a few single-story family residences. Older single family residences can be found along the eastern boundary of the project site near the intersection of C Street and Hermosa Avenue.

Commercial and Industrial Related Uses

Commercial uses in the vicinity include a shopping center at the northeast corner of Pepper Avenue and San Bernardino Avenue immediately north of the project area. In the project area along Valley Blvd there are a number of small commercial businesses including a service station, truck rental business, used car lots, a carneceria, and other similar business. There are also several vacant commercial properties along Valley Blvd. Industrial-uses include the CSM Commercial Bakery on Wildrose Avenue and Valley Blvd, MacNelius Trucking on Pepper Avenue, and a self storage site on Valley Blvd.

Project Area Background

As noted above, the project area's current land use designations fall under the WVSP adopted by the City in June 1996. The WVSP was prepared in response to the opportunities for economic growth and revitalization associated with the construction of the new ARMC and the community's desire to upgrade the overall appearance of the region.

Between 1996 and 2007, the Inland Empire experienced substantial growth in all market sectors up until 2008. While other nearby communities along the I-10 freeway corridor (i.e. Ontario, Rancho Cucamonga and Fontana) have experienced much of this new growth, the WVSPA area lagged behind largely due to the status of the DSF. Other reasons relate to lack of sufficient infrastructure and the reluctance of the marketplace to move forward in a piecemeal manner without a comprehensive development program. With the 2008 downturn in the US economy and the status of the DSF as an endangered species, there has been little interest to develop properties in the CHCCSP Project area. With adoption of the HCP, Implementing Agreement and Preserve Management Plan, the implementation of the CHCCSP Project would then be able to move forward.

The project area has changed little since the West Valley Specific Plan was adopted. All of the identified vacant lands in 1996 remain vacant today. Recently, significant effort and investment by the City of Colton has occurred to address the habitat needs of the DSF. The City also has recently drafted the West Valley HCP, which is following an independent, parallel path with the CHCCSP process.

4.10.2.2 Regulatory Framework

City of Colton General Plan

The City of Colton Draft General Plan was recently approved in August, 2013. The Draft General Plan serves as a blueprint for development and land use activities within the City Limits. The intended purpose of the General Plan is to establish a land use and growth policy to extend over a long-term timeframe. The City of Colton General Plan contains the following elements:

- Land Use;
- Noise;
- Mobility;
- Housing;
- Noise;
- Open Space and Conservation;
- Safety Element;
- Model Air Quality Element; and

- Cultural Resources Element.

Each General Plan element contains goals and policies to guide existing and future land use and development activities. Development in the project area is governed by the 1996 WVSP, which when adopted became a part of the General Plan and Zoning Ordinance. This section of the EIR focuses only on the Land Use Element. Other elements are addressed elsewhere in the EIR.

Land Use Element

The Land Use Element establishes goals and policies for the use and development of properties in Colton, including the location, distribution, type, and intensity. The City has developed specific policies and action programs for focused areas within the City. These include the following:

Colton's Historic Areas

- Downtown Colton
- South Colton

Major Commercial Corridors

- Valley Boulevard
- Mount Vernon Avenue

Emerging Urban and Mixed-Use Districts

- West Valley

Valley Blvd is identified in the Land Use Element as a Major Commercial Corridor, including the segment with the CHCCSP project area, and the West Valley area as an Emerging Urban and Mixed Use District. To focusing on districts and corridors, the Land Use Element also provides policy direction within a citywide context for all residential neighborhoods, commercial and industrial centers, parks, natural resource areas, and public facilities; all of which are found in the CHCCSP project area.

Citywide Goals and Policies

Land Use Diversity and Compatibility

Goals and policies that would affect development in the CHCCSP project area are:

Goal LU-1: Achieve a balance of land use types that create diverse opportunities for housing, employment, commerce, recreation, and civic engagement.

Policy LU-1.1: Ensure that all new development conforms to all applicable provisions of the General Plan and Zoning Code.

Policy LU-1.2: Evaluate existing Specific Plans to ensure continued appropriateness in relation to the goals and policies of the General Plan and the City's long-term vision, and to reflect planned land use. After evaluation, maintain, amend, or repeal Specific Plans, as appropriate.

Policy LU-1.3: Ensure that the zoning map, Zoning Code, Specific Plans, and other applicable development-related ordinances are brought into conformance with the Land Use Element as soon as practical following adoption or amendment.

Policy LU-1.5: Encourage the assemblage of small lots to create more cohesive development sites.

Policy LU-1.6: Ensure that new development projects are compatible with permitted, well maintained uses and buildings in the surrounding neighborhood or district.

Policy LU-1.7: Require that new development assume the full fair-share cost of public improvements which are necessitated by that development.

Policy LU-1.8: Interpret the Land Use Plan in a manner that provides for compatibility between adjacent land uses, and that allows the City to achieve land use, design, and economic development objectives.

Policy LU-1.10 Require that Crime Prevention through Environmental Design (CPTED) approaches be used in the design and development of all new projects and substantial remodeling projects.

Goal LU-2: Create great places in Colton through use of high-quality streetscapes and design requirements.

Policy LU-2.1: Pay critical attention to the appearance of properties at the City's major gateways, as identified in Figure LU-5.

Policy LU-2.2: Require that private development at the gateways locations create a stronger sense of City identity. Improve the public realm to reinforce this image.

Policy LU-2.3: Apply rigorous and transparent design review practices to all development applications.

Economic Development

The City believes that a diversity of businesses will provide for more local jobs at all income ranges and create greater surety of tax revenues to fund City services.

Goal LU-3: Ensure a strong and diversified economic base to provide for fiscal stability and sustainability.

Policy LU-3.1: Provide for land uses that allow a variety of retail, service, manufacturing, institutional, office, and recreational businesses to locate in Colton.

Policy LU-3.2: Retain industrial land for businesses that provide jobs for manufacturing and processing of goods, and that create local revenue sources.

Policy LU-3.3: Continue to use creative financing tools for City-initiated revitalization and to spark private investment.

Policy LU-3.4: Pursue a variety of funding approaches, including grants, impact fees, assessments, and transportation funds, to support public services, municipal programs, and capital investments that support City businesses.

Policy LU-3.5: Establish a list of commercial and industrial uses that are needed in the City, and work towards bringing those businesses to Colton.

Policy LU-3.6: Identify and revitalize areas within the City which, through deterioration of structures, high vacancy rates, vandalism, or health and safety concerns, merit special attention.

Sustainable Development and Building Practices

See Section 4.7, *Greenhouse Gas and Global Climate Change*, for a discussion of the City's Land Use Goals and policies for Sustainable development and Building Practices.

New Residential Neighborhoods

Opportunities exist in the CHCCSP project area for new neighborhoods to be built. The City will insist upon quality development that complements existing neighborhoods and at compatible densities. The goal is to improve the overall housing stock in the community.

Goal LU-8: Create new attractive residential neighborhoods throughout Colton that provide a range of quality housing.

Policy LU-8.1: Consider the maximum densities set forth for each of the residential land use designations as maximums that can only be achieved by those developments

that exhibit the highest design quality and provide definable community benefit.

Policy LU-8.2: Require that the architectural design and scale of new residential developments respect and enhance the character of established neighborhoods.

Policy LU-8.3: Encourage the provision of a range of housing types and sizes to accommodate the varied needs of all socioeconomic segments of the community.

Policy LU-8.4: Pursue opportunities to locate higher-density residential development near activity centers such as parks and recreation facilities, commercial areas, employment centers, and transit.

Policy LU-8.5: Avoid residential development in environmentally sensitive or hazardous areas unless mitigating measures are adequately implemented.

Policy LU-8.6: Require that multi-family residential development and major subdivisions include amenities such as common open space or community facilities.

Policy LU- 8.7: Establish a density bonus program to incentivize well-designed, affordable housing developments with appropriate amenities in multiple-family zoned areas.

Commercial Districts

Colton has outstanding freeway visibility and properties abutting the freeway can support businesses with regional draws. In the CHCCSP project area, these properties are located along Valley Blvd. The City's strategic initiatives to encourage both regional and local serving commercial districts include: 1) improving access (as described in the Mobility Element); 2) establishing and implementing standards for quality site planning and design; 3) updating the zoning regulations to make sure desired uses are accommodated and undesirable uses not allowed; and 4) pursing economic development programs to attract new businesses.

Goal LU-9: Maintain a diverse mix of commercial uses that benefit the community in terms of needed commercial services, tax revenue, and employment opportunities.

Policy LU-9.1: Encourage and facilitate an appropriate mix of goods and service offered in community and neighborhood commercial centers.

Policy LU-9.2: Discourage proliferation of strip commercial development approaches.

Policy LU-9.3: Encourage a unified architectural character in commercial areas, and vigorously enforce commercial land use standards, including but not limited to landscaping, signage, and property maintenance to enhance the visual appearance of the City's commercial areas.

Policy LU-9.4: Maintain the integrity and appearance of commercial properties by streamlining and simplifying the application process for new businesses occupancies and by encouraging updating of the visual appearance of a property whenever possible.

Policy LU-9.5: Establish Zoning Code amortization requirements for nonconforming uses in commercial areas.

Policy LU-9.6: Pursue removal of nonconforming signs.

Policy LU-9.7: Explore opportunities to increase commercial amenities in underserved neighborhoods.

Policy LU-9.8: Diversify the types of commercial uses available in Colton to ensure the City's fiscal well-being. Create a balanced mix of restaurants and retail stores that offer a varied selection of dining and shopping opportunities.

Mixed Use Districts

The City of Colton has a vision with an overall objective to create pedestrian-oriented, exciting places with a mix of residences, retail and office businesses, restaurants, schools, civic functions, and public spaces. To meet this objective, the Land Use Element identifies the following goal and policies.

Goal LU-10: Create new mixed-use, walkable districts that are great places to live and exciting destinations.

Policy LU-10.3: Implement the West Valley Specific Plan (CHCCSP).

Policy LU-10.4: Establish land use patterns and provide pedestrian amenities within the mixed use districts that minimize the need for vehicle travel among the uses within a district.

Open Space

Colton has an abundance of natural resource areas that are dedicated open spaces for flood control and habitat preservation purposes. These provide a welcome visual complement to the urban scene but generally cannot be used for recreation (except for the multi-use trail along

the Santa Ana River). The parks scattered throughout the community provides places for active recreation. With growing participation by persons of all ages in recreation programs sponsored by the City and other organizations, the limited park areas have become strained. Thus, the key aim for open space is to increase open space resources for recreation.

Open Space for habitat conservation is discussed in Section 4.4, *Biological Resources*, and Open Space for parks and recreation are discussed in Section 4.14, *Public Services*.

Public Facilities

Public facilities in Colton include public schools, fire stations, City Hall and the Police Station, City maintenance facilities, the power plant, the wastewater treatment plant, and Hermosa Gardens cemetery. These facilities are critical to daily civic life, and residents and businesses expect services to be continuous and reliable. These are discussed in Section 4.12, *Public Services*, and Section 4.14, *Public Utilities and Infrastructure*.

Valley Blvd Corridor

Valley Boulevard is Colton's main east-west corridor, with excellent frontage along the I-10 freeway. It often serves as an alternate travel route between cities in west San Bernardino County when the I-10 freeway experiences congestion. However, many commercial and industrial buildings exhibit deferred maintenance, and design quality has not been a priority. This busy commercial corridor presents opportunities for enhanced and new commercial development. The corridor has the potential to support regional-serving commercial uses given its freeway visibility and orientation. Underutilized and aging industrial properties should be encouraged to transition to uses that can increase tax revenues and attract regional customers.

Goal LU-17: Revitalize Valley Boulevard and Mount Vernon Avenue as attractive and economically healthy commercial corridors.

Policy LU-17.1: Attract and retain a wide range of commercial businesses that offer goods and services to both the local and regional markets, increase tax revenue, and create employment opportunities.

Policy LU-17.2: Attract full-service, mid-scale restaurants to complement the variety of fast-food restaurants already available in the City.

Policy LU-17.3: Support development proposals that will revitalize aging, underutilized, and poorly maintained properties along Valley Boulevard and Mount Vernon Avenue.

Policy LU-17.4: Encourage the gradual transition of long-established residential uses along Valley Boulevard and Mount Vernon Avenue to desired commercial uses.

Policy LU-17.5: Facilitate development of regional-serving commercial uses along Valley Boulevard to take advantage of freeway visibility and accessibility.

Policy LU-17.6: Reduce the visual and environmental impacts of expansive parking lots along major corridors by encouraging a street-oriented development pattern that encourages pedestrian activity, with buildings sited at or near the sidewalk edge.

Policy LU-17.8: Require the use of landscaping, lighting, site design, and similar design elements to improve the appearance of commercial sites.

Policy LU-17.10: Encourage and facilitate revitalization of properties along Mount Vernon Avenue and Valley Boulevard through lot mergers, street vacations, and City-sponsored programs.

Policy LU-17.11: Vigorously enforce City codes, including building and safety, zoning and land use regulations, and property maintenance codes, to improve the visual appearance of properties along Valley Boulevard and Mount Vernon Avenue.

Policy LU-17.12: Develop and implement a coordinated marketing strategy to define the image, identity, and market position to enhance opportunities for businesses, to attract chain stores, and to increase commercial activity.

Policy LU-17.13: Monitor traffic conditions along major commercial corridors in the City, and complete intersection and roadway improvements to support economic activity.

West Valley Specific Plan Project Area

The CHCCSP project area is part of the larger West Valley Specific Plan (WVSP) adopted in 1996. The WVSP area represents a major opportunity area for comprehensive reuse and redevelopment. The City's goal is to create a distinct activity center with the look and feel of an "urban village." This concept is intended to provide an environment where people can both live and work; enjoy complementary residential, commercial, and recreational uses; access alternative modes of transportation; and feel pride in their distinctive community identity.

Goal LU-20: Establish a mixed-use village via the West Valley Specific Plan that provides a complementary mix of commercial, residential, and office uses.

Policy LU-20.1: Ensure developments possess a distinct quality and character that differentiates the West Valley Specific Plan area from other newly built commercial activity centers in the region.

Policy LU-20.2: Balance residential, commercial, and office land uses to establish a sustainable economic foundation.

Policy LU-20.3: Establish land uses compatible with and complementary to the ARMC, such as office developments, commercial laboratories, medical equipment sales and services, and hospitality and dining establishments that cater to hospital visitors and employees.

Policy LU-20.4: Attract commercial anchors and dining and entertainment establishments with a regional appeal that are lacking in neighboring communities and along the I-10 freeway corridor.

Policy LU-20.5: Emphasize commercial and revenue-generating uses that complement and balance the land uses encouraged in other activity centers in the City, particularly Cooley Ranch.

Policy LU-20.6: Include a diverse housing mix, emphasizing a variety of attractively designed higher-density homes with common open space and added amenities.

Policy LU-20.7: Locate higher-density residential uses and commercial centers around the area's major access points to facilitate access by residents and freeway drivers.

Policy LU-20.8: Locate higher-intensity uses closer to Valley Boulevard, and provide buffers or design transitions to minimize noise and traffic impacts to the residential neighborhoods located north of the West Valley Boulevard area.

Policy LU-20.9: Create connections between neighboring land uses that make alternatives to the automobile safe and attractive. Provide pedestrian linkage to surrounding neighborhoods, and require that development plans and designs facilitate both pedestrian and bicycle use.

Policy LU-20.10: Provide parks, public spaces, plazas, and open space that are consistent with adopted design themes and that all residents can enjoy.

Policy LU-20.11: Require that roadway systems are adequate to accommodate new volumes, existing demands, and emergency response needs.

Policy LU-20.12: Avoid piecemeal development of the West Valley Specific Plan area by requiring development to occur within the context of a master plan.

Policy LU-20.13: Use gateway monuments or distinguishing gateway features at key points of arrival into the City, and at major developments, to convey civic pride and identity.

Southern California Association of Governments (SCAG)

State Senate Bill 375 (SB 375) was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. Under SB 375, SCAG was tasked with developing a Sustainable Communities Strategy (SCS) as part of its 2012 Regional Transportation Plan (RTP) that provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board (ARB) (also see discussion in Section 4.7, *Greenhouse Gas and Global Climate Change*). SCAG's SCS is part of the 2012 Regional Transportation Plan (RTP) and combines transportation and land use elements in order to achieve emissions reduction targets. If the emissions reduction targets cannot be met through the SCS, an Alternative Planning Strategy (APS) may be developed that shows how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures of policies. SB 375 also offers local governments regulatory and other incentives to encourage more compact new development and transportation alternatives.

SCAG's focus for the latest RTP is the development of the Sustainable Communities Strategy, founded on four key elements:

- A **Land Use** growth pattern that accommodates the region's future employment and housing needs, and that protects sensitive habitat and resource areas.
- A **Transportation Network** that consists of public transit, highways, local streets, bikeways, and walkways.
- **Transportation Demand Management (TDM)** measures that reduce or eliminate peak-period demand on the transportation network, such as carpooling, telecommuting, vanpooling, and other innovate programs such as "parking pay-out."
- **Transportation System Management (TSM)** measures that maximize the efficiency of the transportation network, such as signal timing, freeway ramp metering, and bottleneck relief/auxiliary lane projects.

Also see Section 4.15, *Transportation and Circulation*, for a discussion of the RTP. ***City of Rialto Gateway Specific Plan***

The CHCCSP project area is bounded on the west by the City of Rialto and that City's Gateway Specific Plan. Exhibit 4.10-2, *Gateway Specific Plan and CHCCSP Land Uses*, shows the relationship between the two specific plans. Currently the area abutting the CHCCSP project

area are largely vacant, however in the future, the adjacent land uses would include Office Park, Industrial Park, and Commercial land uses.

US Fish and Wildlife Service

The US Fish and Wildlife Service (USFWS) has identified areas in the City of Colton that are habitat for the Delhi Sands Flower-loving Fly (DSF), including areas within the CHCCSP project area. The City is currently working with USFWS to complete a Habitat Conservation Plan (HCP), Implementing Agreement (to implement the HCP), and a Preserve Management Plan (PMP) that outlines the strategy for maintaining the conservation areas within the CHCCSP project area and adjacent parcels that will remain in a conservation easement for DSF.

4.10.3 Environmental Impacts and Mitigation Measures

4.10.3.1 Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines' Appendix G Environmental Checklist, to determine whether land use and planning impacts are significant environmental effects, 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 a natural community conservation plan?

4.10.3.2 Project Overview

CHCCSP Project Overview

The existing WVSP consists of two Subareas: the West Subarea of approximately 476 acres and the East Subarea of approximately 152 acres, which are separated by a neighborhood of unincorporated San Bernardino County. The West Subarea is the subject of the proposed CHCCSP. The purpose of the CHCCSP is to revise and amend a portion of the West Subarea of the existing WVSP project area; the East Subarea will remain unaffected by the amendment. Of the West Subarea, approximately 373 acres of the total 476 acre area are affected by the amendment (CHCCSP). The difference of approximately 103 acres is the result of excluding the areas encompassed by the ARMC and the Hermosa Gardens Cemetery, which are uses expected to remain for the long term and that are compatible with the goals and policies of the

City General Plan.

CHCCSP Land Use Breakdown

Table 4.10-3, *CHCCSP Land Uses Designations, Acreage and Square Footage*, shows the breakdown of land uses in the CHCCSP project area by Land Use Designations. For the purposes of the assessment of land use and other issues, a Floor Area Ratio (FAR) of .25 was used to calculate buildout of non-residential uses in the project area. This is a realistic FAR and allows up to 25 percent of a project site to be developed with structures while the remaining 75 percent is developed with parking lots and drive aisles, landscaping, setbacks from adjacent properties etc.

Table 4.10-3: CHCCSP Land Uses Designations, Acreage and Square Footage

Proposed Land Use/Density	Acreage[1]	Total Dwelling Units and Square Footage[2]
Residential		
RES-M (Medium) 4 du/ac	26.9 ac	108 DU
RES-M-1 (Medium-1) 11 du/ac	15.2 ac	167 DU
Total	**2.1 ac**	**275 DU**
Commercial		
R (Retail)	79.2	862,488
RMU (Retail Mixed Use)	68.8	749,232
OMU (Office Mixed Use)	23.6	257,004
BP (Business Park)	51.7	563,013
Total	**223.3**	**2,431,737**
Open Space		
OS/P (Open Space / Parks)	4.5 ac	
OS/H (Open Space / Habitat)	50.0 ac	
Total	**54.5 ac**	
Other		
Major Street Right-of-Way	53.2 ac	
TOTAL	**373.20ac**	**285 DU/ 2,431,737sq Ft**

Source: CHCCSP, 2014

Notes:

1. The Draft West Valley HCP use approximately 50 acres of habitat conservation area while the CHCCSP uses 48.4. Throughout the EIR the 50-acre set aside for habitat conservation has been used to be consistent with the West Valley HCP and WVHCP Environmental Assessment. To make up the difference, the 1.6 acres have been deducted from the Major Right-of-Way category.
2. Square Footage based on a Floor Area Ratio of .25 where ¼ of a project site is used for habitable space with the remaining site area utilized for parking, landscaping, driveways, and setbacks from adjacent properties.

Residential

Approximately 42.1 acres will be residential developments with a total of 275 dwelling units in planning areas 2, 4, 7, 8, 13 and 15 for residential use in a mix of medium density units with an alley, courtyard units, town homes, high-density units, and multi-family units. The residential component is generally located between the city limits with the City of Rialto and Pepper Avenue, west to east, south of San Bernardino Avenue and midway between San Bernardino Avenue and Valley Blvd, north to south (refer to Exhibit 4.10-1). Table 4.10-4, *Summary of Residential Land Uses Under the CHCC*SP, summarizes the residential descriptions and densities per acre.

Medium Density (RES-M)

The Medium Density land use category includes a single-family detached land use designation with a target density of 4 dwelling units per acre. They are designated within Planning Areas 2, 13 and 15 with 108 planned homes encompassing 26.9 acres.

Table 4.10-4: Summary of Residential Land Uses Under the CHCCSP

Description	Land Use Designation	Acres	Target Dwelling Units	Density	Percent of Acres
Medium	RES-M	26.9	108	4 du/ac	7.2%
Medium-1	RES-M-1	15.2	167	11 du/ac	4.1%
Subtotal		42.1	275	**--**	**11.3%**

Source: CHCCSP, 2014.

Single-family detached homes within this density range include, Green Courts, Motor Courts, and other configurations.

Medium Density (RES-M1)

The RES-Medium-1 Density land use category permits single family detached or attached dwelling units with a target density of 11 dwelling units per acre and are designated within planning areas 4, 7 and 8. These planning areas encompass 15.2 acres with up to 167 dwelling units allowed. In addition to the home types proposed in RES-M, other housing stock may include triplex homes and town homes. Also offered within the RES-M1 designation is the opportunity to develop senior housing in planning areas 7 and 8 with a density of up to 30 dwelling per acre, with approval of a conditional use permit.

Retail Mixed Use (RMU)

The RMU land use category applies to two planning areas (planning areas 9 and 24) located

along the I-10 Freeway and Valley Blvd corridors. Planning Area 9 (25 acres) is immediately adjacent to PA 16 to the west; to the north, west and south it is abutted by Street A, Wildrose Avenue, and Valley Blvd. The larger Planning Area 24 (48.8 acres) is east of the ARMC property and north of Valley Boulevard, east of Meridian Avenue and south of C Street. Retail uses are preferred as the primary land use, but these two planning areas are intended to provide broad flexibility to respond to both the City's vision and market needs of the region.

Retail (R)

There are a total of 79.2 acres within the Retail land use designation including general retail, entertainment, and hospitality within planning areas 16 (68.1 acres), 20 (7.4 acres) and 22 (3.7 acres). Strategically located adjacent to the I-10/Pepper Avenue interchange, the intent is to create a vibrant community retail core that will promote new employment opportunities and strengthen the City's tax base. The City's intent is to also include sites for a fire station and police sub-station within the retail planning areas. As part of any submittal for retail planning areas, a master plan is required to include locations for fire and police facilities. The master plan requirements are covered in greater detail in the CHCCSP.

Flexibility is planned within the Retail land use designation in order to adjust to changing market conditions. Refer to Section 7.0 of the CHCCSP document for a comprehensive list of uses permitted or conditionally permitted in the Retail Land Use category.

Business Park (BP)

The Business Park designation totals 51.7 acres and is located along the north and south sides of Valley Boulevard within planning areas 1, 5, 10 and 17. These planning areas are easily accessible from the I-10/Pepper Avenue interchange and with the recently relocated intersection of Valley Boulevard and Pepper Avenue. This includes the I-10 /Riverside Avenue off-ramp which will also provide excellent access to these commercial uses along Valley Boulevard.

The Business Park designation provides for small to medium scale light industrial, warehousing, distribution, and other support uses. Retail businesses are also permitted as a secondary use.

Building size restrictions are included in the development standards in order to avoid "big box" warehouse appearances from overwhelming other land uses as envisioned in the CHCCSP project area. The intent is to create a high quality cohesive business park setting that will complement the other uses within the CHCCSP project area and provide for pedestrian connectivity to all areas of the project.

Special attention has been focused in the Land Use Plan to provide adequate visual and noise

buffering between the business park in planning area 5 and the planned residential use directly to the north within planning area 4.

The Business Park designation also applies to a 27.84-acre area located along the south side of Valley Blvd within planning areas 10 and 17 adjacent to the I-10 Freeway. These areas encompass the former Moss Brothers Ford dealership and related auto uses that have vacated the area. In addition, there are a number of vacant or underutilized properties along Valley Blvd that could be redeveloped under the CHCCSP.

Office-Mixed Use (OMU)

Office-Mixed Use planning areas total 23.6 acres and are located in planning areas 19, 21 and 23 adjacent to the ARMC campus. They are located at the northwest corner of Valley Blvd and Meridian Avenue and the southwest and southeast corners of San Bernardino and Pepper Avenues respectively. Office buildings can be easily accessed from Pepper Avenue via the I-10/Pepper Avenue interchange. Each of the planning areas is located within walking distance of the ARMC and proposed retail center planning areas.

The OMU designation provides for general and medical uses, while at the same time providing commercial uses catering to its workforce (i.e., eateries, convenience stores, etc.). Planning area 23 is located along the I-10 corridor, at the northwest corner of Valley Blvd and Meridian Avenue with excellent freeway visibility. Planning areas 19 and 21 are located along San Bernardino Avenue, opposite an existing neighborhood retail site. With close proximity to the ARMC, medical office building opportunities and commercial opportunities catering to office uses exist in all three planning areas. The intent is to create a high quality cohesive office park setting that will complement the other uses within the CHCCSP project area and the ARMC campus.

Approximately, 223.3 acres will be developed for various non-residential uses. Table 4.10-5, *Summary of Non-Residential Land Uses in the CHCCSP*, summarizes the non-residential uses proposed in the project area. As indicated in the Project Description, Exhibit 3.6 *Existing Land Uses Area A*, non-residential land use designations consist of retail, business park and office uses that are generally located south and east of the residential designated planning areas along the west side of Pepper Avenue and extending westward to the city limits of Rialto on the north side of Valley Boulevard.

Public Facilities

Public facilities consist of Open Space for parks and habitat conservation, and road rights-of-way. Table 4.10-6, *Summary of Open Space and Other Public Facilities in the CHCCSP,* describes each use including the acreage and total percentage to be used for the CHCCSP project area.

Table 4.10-5: Summary of Non-Residential Land Uses in the CHCCSP

Description	Land Use Designation	Acres	Percent of Acres
Retail	R	79.20	19.4
Retail-Mixed Use	RMU	68.8	18.4
Business Park	BP	51.7	13.8
Office-Mixed Use	OMU	23.6	6.3
	Total	**223.30**	**57.9%**

Source: CHCCSP, 2014.

Open Space/Parks

A total of 4.5 acres of park land are provided within planning areas 12 and 14 for active and passive recreational purpose. The existing George E. Brown Jr. Park, located within Planning Area 13 will be removed for future residential development. Planning Area 12 totaling 3.91 acres will accommodate this loss by developing a new public park (dedicated for park use) comprised of picnic tables, a tot lot playground and a perimeter cardiovascular workout pathway. Planning Area 14 will serve as an access point of entry for pedestrian traffic off Eucalyptus Avenue and as a bridge for DSF migration between Open Space/Habitat planning areas (planning areas 11 and 18).

Table 4.10-6: Summary of Open Space and Other Public Facilities in the CHCCSP

Description	Land Use Designation	Acres	Percent of Acres
Open Space/Parks	OS/P	4.51	1.2
Open Space/Habitat	OS/H	48.4	12.9
Open Space Subtotal		**52.91**	14.2
Major Street Right-of-Way	-	54.89	14.7
Other Uses Subtotal		107.8	

Source: CHCCSP, 2014.

Open Space/Habitat

A total of 48.4 acres of habitat area for the DSF are designated in Planning Areas 3, 6, 11, and 18. These planning areas are included as part of the larger West Valley HCP prepared by the City of Colton for preservation and mitigation of the DSF (See Appendix C for a copy of the Draft HCP). Approval of the HCP is not required as a part of the approval and adoption of the CHCCSP project. However, development projects that are proposed within the area covered by the Incidental Take Permit cannot be developed until an approved HCP and Incidental Take Permit are in place.

Major Street Rights-of-Way

The project includes 54.9 acres of existing and future public road rights to support the circulation plan. Street names and their descriptions are listed below:

Major Arterials

Pepper Avenue, San Bernardino Avenue, and Valley Blvd are designated Major Arterials with an ultimate buildout of 6 lanes with a landscaped median. Currently, most of Pepper Avenue has been fully improved and includes a 17 foot wide raised median; the primary change will be an eight foot wide combination sidewalk and Class I bike lane. Valley Blvd and San Bernardino Avenue are currently four lane roads; San Bernardino Avenue, east of Indigo Avenue has a small section with two lanes.

Collector Road

Meridian Avenue is the only Collector Road designated street with an existing 2-lane local road that will be improved to 4 lanes. Meridian Avenue runs north/south between W. Olive Street (San Bernardino Avenue) and Valley Blvd.

Local Road

Indigo Avenue, Wildrose Avenue, Woodpine Avenue, Street A, C Street, Hermosa Avenue, N. Eucalyptus Avenue

Wildrose Avenue, Woodpine Avenue, Indigo Avenue, and C Street are existing 2-lane roads and will remain so. While Wildrose Avenue currently extends between Valley Boulevard and San Bernardino Avenue, it will be changed to a cul-de-sac on its north end to avoid through traffic in residential areas. Street A is a new 2-lane road located between Wildrose Avenue and N. Eucalyptus Avenue and is also designated as a 2-lane road. All the roads will have a 36-inch curb to curb street section within a 60-inchright or way.

4.10.3.3 Impact Analysis

a) Divide an Established Community

The project area is composed of approximately 373 gross acres generally located south of San Bernardino Avenue, north of the Interstate 10 freeway, west of Hermosa Avenue and east of the City of Colton boundary with the City of Rialto. Exhibits 3-7 through 3-9 in Chapter 3, *Project Description*, show a recent aerial photograph of the project area and vicinity. What is apparent in these exhibits is that over 60 percent of the project area is made up of vacant land, or open space associated with the Colton Golf Course in an otherwise urban environment.

The proposed CHCCSP would allow the development of existing vacant properties or existing underutilized properties, add new development projects, infrastructure, and a refined traffic circulation system. Implementation of the CHCCSP would result in the creation of a community comprised of both older existing land uses and new land uses. The project area is not located considered a "community" although there is a small neighborhood located at the southwest corner of C Street and Hermosa Avenue in Planning Area 24 immediately south of the Hermosa Gardens Cemetery. There are no plans to redevelop this neighborhood or otherwise discourage continued habitation of residences. Therefore, the project would create no impacts in terms of physically dividing an established community.

b) Conflict with Applicable Land Use Plans and Policies

City of Colton Land Use Element

Land Use Diversity and Compatibility

Goal LU-1 is to achieve a balance of land use types that create diverse opportunities for housing, employment, commerce, recreation and civic engagement. The proposed CHCCSP Land Use Plan identifies 24 distinct planning areas that when developed will result in a diverse community of residences, office space, business parks, retail areas and planning areas where a mix of uses - Office Mixed Use and Retail Mixed Use - can be developed. Policies related to this goal include, but are not limited to, allowing future developers to create a synergy between uses by assembling parcels (Policy LU-1.5), paying a fair-share of infrastructure improvements (Policy LU-1.7), and developing a sense of City-identity at gateway locations such as the intersection of Valley Blvd and Pepper Avenue.

Goal LU-2 is to create great places in Colton through use of high quality streetscapes and design requirements. Policies related to this goal include, but are not limited to requiring private development at gateway locations to create a stronger sense of City identity (Policy LU-2.2, and apply a rigorous and transparent design review practices to all development applications (Policy LU-2.3).

The CHCCSP meets these goals by providing *Development Regulations* for all land uses within the project area (CHCCSP Section 4) that provide the basic criteria that governs all uses and development within the project area boundaries, and *Community Design Guidelines* (CHCCSP Section 6) that provide the standards and guidelines for all major community design elements including site planning, architecture, monumentation, landscape, signage, lighting and other improvements in order to implement the City's vision for the project area.

Goal LU-3 is to ensure a strong and diversified economic base to provide for fiscal stability and sustainability. Policies related to this goal include, but are not limited to providing for

land uses that allow a variety of retail, service, manufacturing, institutional, office and recreational business to locate in the City (Policy LU-3.1), pursue finding a variety of approaches to support public services, municipal programs and capital investments that support City businesses (Policy LU-3.4), establish a list commercial and industrial uses that are needed in the City and work toward bringing those businesses to the City (Policy LU-3.5, and Identify and revitalize areas within the City that need rehabilitation or revitalization (Policy LU-3.6).

The CHCCSP meets these goals by providing a specific plan that is flexible and takes into consideration that the project area is not a "clean slate" but that there are existing conditions that require the City's and/or future developers attention to resolve. These include addressing the redevelopment of existing vacant or underutilized properties, the consolidation of smaller parcels to create larger, more attractive parcels for developers, and establishing a mechanism to fund and develop the needed public infrastructure in the project area.

New Residential Neighborhoods

The CHCCSP includes six planning areas with 42.1 acres that may be developed with residential uses (planning areas 2, 4, 7, 8, 13 and 15). Residential uses are designated for Medium Density development (RES-M at 4 du/ac) - 26.9 acres for up to 108 residences; and Medium Density development (RES M-1 at 11 du/ac) on 15.2 acres for up to 167 residences. A total of 275 dwelling units may be built in the project area. In addition, senior housing may also be developed in any of these planning areas at a density of up to 30 du/ac; thus increasing the potential unit count.

The CHCCSP meets the Land Use Element goals of creating attractive residential neighborhoods that provide a range of quality housing by providing design guidelines, including architectural and landscape guidelines. The CHCCSP encourages the provision of a range of housing types (Policy LU-8.3) by allowing a variety of – single family detached, townhomes, patio homes, triplexes, etc. Other ways the CHCCSP is consistent with the Land Use Element is through the implementation of design guidelines (Policy LU-8.2) locating higher density residential development near activity centers (Policy LU-8.4), and establishing a density bonus program to incentivize well designed affordable housing development (Policy LU-8.7) by allowing senior housing (up to 30 du/ac) in RES-M and RES-M1 with a Conditional Use Permit.

Commercial Districts

The CHCCSP takes advantage of the project area's location adjacent to the I-10 Freeway by identifying Retail, Business Park, Office-Mixed Use and Retail Mixed Use planning areas along the Valley Blvd/I-10 Freeway corridor. The CHCCSP meets the goal and policies for Commercial Districts by encouraging and facilitating an appropriate mix of goods and services offered in retail

centers (Policy LU-9.1) by providing a large planning area (16) at 68.10 acres that will encourage a variety of commercial retail uses; and the proliferation of strip commercial centers (Policy LU-9.2) can be controlled through the implementation of CHCCSP Development and Design Standards and Guidelines. Likewise, developers will be encouraged to provide a unified architectural character in commercial areas through the City's Design Review process using the CHCCSP's design guidelines.

Mixed Use Districts

The Land Use Element loosely defines these districts as pedestrian-oriented, exciting places with a mix of residences, retail and office businesses, restaurants, schools, civic functions, and public spaces. By definition, the CHCCSP is a Mixed Use District because it includes a variety of land uses in adjacent planning areas that when developed will meet the City's goal to create new mixed-use walkable districts that are great places to live and exciting destinations. This goal would be met by implementing the West Valley Specific Plan (CHCCSP) (Policy LU-10.3), and developing land use patterns that encourage pedestrians by providing amenities with the districts to make alternatives to motor vehicles attractive (Policy LU-10.4).

Open Space

The Land Use Element identified open space for flood control and habitat preservation purposes. The project area is not located on a flood plain but the City is setting aside 48.4 acres in planning areas 3, 6, 11 and 18 for the conservation of DSF habitat. Open Space for habitat is discussed in detail in Section 4.4, *Biological Resources*.

The CHCCSP project area currently has a public park (approximately 10 acres) that is also used as a detention basin. The CHCCSP calls for the removal of the park and that area will be used for residential development. A new considerably smaller park will be developed in planning area 12 (3.91 acres). However, the CHCCSP will be developed with other pedestrian amenities that will also encourage cycling and other modes of human powered transportation thus off-setting the reduction of the size of the park. Section 4.14, *Public Services*, includes a comprehensive discussion of this issue.

Public Facilities

The CHCCSP addresses the need for public facilities in the project area by identifying the need for a police station and fire station within the project area.

Valley Blvd Corridor

The City's goal is to attract and facilitate more intense commercial development that is currently lacking in the City and that would provide mid-level, sit-down restaurants and commercial uses with a regional appeal. Uses such as self-storage or warehouses that do not

contribute to the economic development of the area by providing increased revenue or creating employment opportunities will be discouraged. To facilitate larger, deeper sites that are appropriate for commercial development, lot consolidation, street vacation, and the use of similar actions or incentives to consolidate property will be encouraged.

The visual appeal of a major corridor like Valley Boulevard is important, and the City will extend the enhancements that have occurred at the east end to cover the length of the boulevard (consistent with CIP scheduling), visually tying the east end to new development within the West Valley Specific Plan Amendment area. By coupling property redevelopment initiatives with more vigorous code enforcement activity, the City will help transform the use and appearance of private properties along this critical corridor.

The CHCCSP was prepared to specifically address the existing conditions in the west subarea of the WVSP project area, particularly along Valley Blvd which is the most visible corridor in the area, with direct access to the I-10 Freeway. The CHCCSP will support the City's efforts to attract and retain a wide range of commercial businesses (Policy LU-17.1), attract full service and mid scale restaurants (Policy LU-17.2), revitalize aging, underutilized and poorly maintained properties (LU-17.3), facilitate the development of regional serving commercial uses (Policy LU-17.5), and other policies intended to redevelop and maintain the Valley Blvd corridor. These policies can all be implemented through the Development Standards and Design Guidelines set forth in the CHCCSP.

WVSP Project Area

The Land Use Element states that through the West Valley Specific Plan, land use policies will integrate urban village and mixed-use concepts to create living and shopping environments that are missing in Colton. Housing opportunities will be created for residents looking for either a single-family suburban character or housing within a more urban context. Development goals include creating economic development opportunities by attracting retail and office uses. Successful completion of high-quality mixed-use and residential projects will assist the City in accomplishing multiple housing, circulation, land use, and recreation objectives. The CHCCSP was prepared to support the City's General Plan goals and policies as well as the City's vision for the development of the project area.

Summary of CHCCSP's Consistency With the Land Use Element

The CHCCSP has been prepared to implement the City's vision to create a dynamic mixed use center where people can live, shop, work and play. The CHCCSP establishes a land use plan with comprehensive development regulations, community planning and design guidelines/standards that will create a sense of community and a sense of place. The project area will be developed into a pedestrian friendly community that becomes a place where people are encouraged to

walk and cycle between homes, businesses, shopping areas and entertainment areas. Implementation of the CHCCSP will create a new employment center for the City and strengthen its economic base.

SCAG Regional Transportation Plan and Sustainable Communities Strategy

SCAG's Compass Blueprint is a model for integrating land use and transportation planning with four core principals – mobility, livability, prosperity, and sustainability. In implementing the Compass Blueprint program, SCAG uses demonstration projects – incentive based voluntary partnerships between SCAG and local governments like the City of Colton, that apply innovative approaches to support regional priorities particularly reducing greenhouse gas emissions, improving the jobs/housing balance, and overall providing a better quality of life to residents in the region.

In addition to the Compass Blueprint program, SCAG has prepared a Sustainable Communities Strategy as required by Senate Bill (SB) 375, which requires that regional planning organizations better integrate transportation, land use, housing, and environmental planning with the goal of reducing regional greenhouse gas emissions. SCAG's Sustainable Communities Strategy is intended to ultimately reduce traffic congestion, air pollution and vehicle miles traveled (VMT) over much of the region, as it triples funding for bicycle and pedestrian improvements.

The CHCCSP has been prepared to meet the intent of SB 375 and SCAG's Sustainable Communities Strategy by planning for an integrated community of residential, professional office, business park and commercial retail uses, along with the existing ARMC campus with over 3,000 employees, all within close proximity to encourage walking and cycling. The specific plan also includes the incorporation of Omnitrans Bus Rapid Transit (BRT) routes along major streets in the project area including Pepper Avenue and Valley Blvd. SCAG's Compass Blueprint Study (2007) included BRT routes in the Inland Empire including two routes through the project area.

Rialto Gateway Specific Plan

Exhibit 4.10-2 shows the relationship between the CHCCSP project area and the Gateway Specific Plan (GSP) project area. The CHCCSP has been developed with the understanding that land uses in the project area must be compatible with future adjacent land uses in the neighboring city. To that end, the CHCCSP identifies business park uses along Valley Blvd in planning areas 1 and 5 on the north side of the street abutting the GSP Retail Commercial planning areas; and planning areas 10, and 17 on the south side of Valley Blvd adjacent to the GSP Freeway Commercial planning area. Business Parks would include such uses as light and medium manufacturing and/or assembly facilities, product development facilities, small machine shops, photo and blueprint facilities, dry cleaning and laundry plants, and municipal

services such as water facilities or fire/police stations. In order to ensure that compatible land uses, the City of Colton will coordinate any development projects proposed in these planning areas with the City of Rialto (see mitigation measure LU-1 below).

Planning areas 2, 3, and 4 in the northwest corner of the project area are designated for residential and open space uses. Planning Area 3 is an Open Space/Habitat planning area to be set aside for conservation of DSF habitat. Planning areas 2 and 4 are designated for residential uses. Adjacent in the GSP project area, the City of Rialto has identified Office Park and Industrial Park uses. Office Park uses include professional office uses such as accounting and architecture firms, financial institutions, medical office and other health-related uses, pharmacies, and some commercial facilities related to these uses. Industrial Park uses envisioned in the GSP would be similar to those identified in the CHCCSP Business Park designation. For both Office Park and Industrial Park planning areas building height and setback requirements are typical with the heights of buildings at a maximum of 35 feet and set backs from side and rear yards of five feet. In addition, where these uses are adjacent to residential uses, the GSP guidelines state that buildings should be sited with consideration given to adjoining uses particularly where industrial uses abut existing residences. Screening from adjacent parcel views should also be included to screen loading docks, service yards and other appurtenant uses where they abut residential uses.

Since no development in these two GSP planning areas is currently proposed, there is an opportunity to coordinate between the cities of Rialto and Colton to ensure that future adjacent land uses are compatible through the use of setbacks from property lines and screening. Note: depending on which properties are developed (Office or Industrial in the GSP or Residential in the CHCCSP) first may determine the set back and screening requirements for the subsequent use. Therefore, this impact would be less than significant with the implementation of mitigation measure LU-1.

c) Conflict with Conservation Plans

The conservation strategy for the West Valley HCP area recognizes that the area is one of the few remaining viable DSF habitat areas north of the I-10 freeway, as emphasized by USFWS's 5-Year Review of the DSF (March 2008). The protection of sufficient high quality DSF habitat within the HCP area is needed to ensure the long-term survivability of DSF populations north of the I-10 freeway. To accomplish this level of protection, the City of Colton and USFWS developed the following goals:

- Preserve large blocks of DSF habitat north of the I-10 Freeway so that there is adequate open space, a perpetual sand supply and high quality habitat for DSF and associated Delhi Sands plant community species;

- Protect important DSF populations north of the I-10 Freeway in the Colton Recovery Unit;
- Provide a connection between important populations north of the I-10 Freeway;
- Provide long-term conservation management of DSF populations in Colton north of the I-10 Freeway;
- Protect DSF habitat along East Slover Avenue between Riverside Avenue and Pepper Avenue; and
- Develop an education program for the citizens of the City of Colton about the Delhi Sands natural community, DSF and the ongoing efforts to protect it, and a discussion of why the species was listed and what can be done to reduce impacts to the species.

The above goals are supported by the following biological objectives:

- Those areas identified as providing moderate, high quality, DSF habitat and that have been designated for long-term conservation will be mapped as DSF conservation areas within the HCP area. No development will be allowed within these designated conservation areas;
- Implement a per acre mitigation fee for all development areas within the HCP boundaries with DSF habitat;
- With these monies, fund the purchase and long-term management of a large conservation area within the City of Colton, north of the I-10 Freeway that contain high-quality sand dune habitat for the DSF;
- Proactively manage the proposed conservation area for the preservation and recovery of DSF populations in north Colton; and
- Minimize impacts to DSF and their habitat by imposing development standards, including avoidance and minimization measures.

The West Valley HCP calls for the conservation of 48.8 acres of DSF habitat within the CHCCSP project area plus an additional 0.6 acres of Open Space/Park to provide a bridge between planning areas 11 and 18 to allow DSF to migrate between the two conservation areas. Planning areas 3, 6, 11 and 18 will be set aside for Open Space/Habitat Conservation for the DSF, plus Planning Area 14 (Open Space/Park) for a total of 49 acres. The West Valley HCP will provide a total of 63.3 acres of permanent habitat in conservation including the 48.8 acres in the CHCCSP project area. The remaining acreage is located in the Hermosa Gardens Cemetery, and near the north east corner of Pepper Avenue and Valley Blvd (Hospital and Pepper Avenue Conservation Sites). The conservation sites were previously set aside as mitigation for the development of the ARMC as well as for the intersection improvements made at this intersection.

4.10.3.4 Mitigation Measures

LU-1 When projects are proposed that would site Business Park and Residential land uses in planning areas that are adjacent to the City of Rialto's Gateway Specific Plan project area (planning areas 1, 2, 3, 4, 5, and 10), future developers shall coordinate with the City of Rialto in order to ensure that future land uses in adjacent planning areas (F-C, R-C, I-P and O-P) are considered and that if necessary, special setback and screening requirements are identified.

Mitigation measures for the long-term conservation and maintenance of DSF habitat are included in Section 4.4, *Biological Resources*. According to established protocol, the USFWS must approve the HCP prior to any project related construction activities in the CHCCSP project area except within previously developed areas including the Colton Golf Course. The HCP prepared for the Delhi Sands Flower-Loving Fly forms the basis for USFWS to issue an incidental take permit. The issuance of the permit will allow the City to implement the CHCCSP to allow the development of a mix of land uses (covered activities) within the project area while setting aside land for conservation of DSF habitat. Therefore, impacts to the DSF and other listed species that may inhabit the project area would be less than significant when conservation strategies and mitigation measures are implemented.

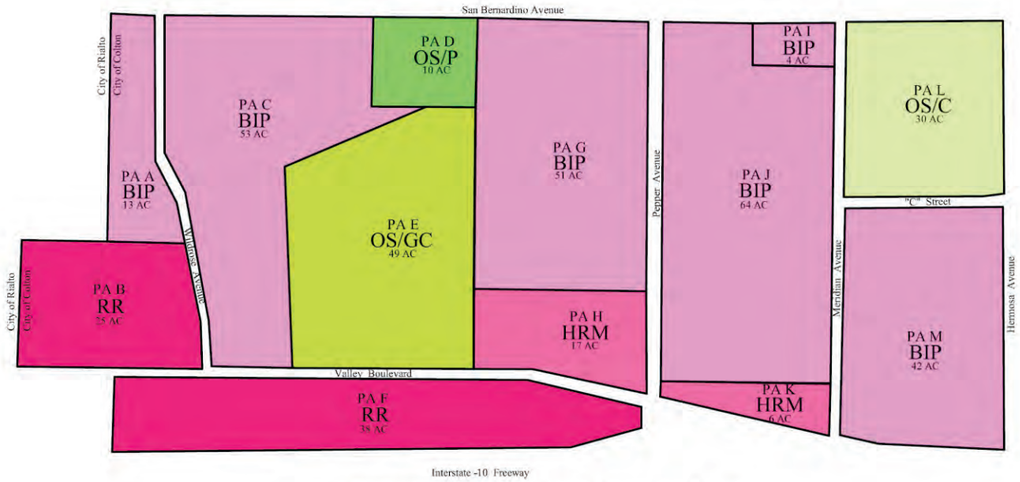
4.10.3.5 Level of Significance After Mitigation

In addition to the requirements set forth in the CHCCSP for development projects in each of the planning areas including setback and height restrictions, Mitigation Measures for Aesthetics include requirements for site, landscape and lighting plan review on a project by project basis to ensure compatibility between adjacent planning areas and specific land uses within those planning areas. With regard to mitigation for Biological Resources, Mitigation BIO-10 specifically applies to future land uses in planning areas adjacent to the habitat conservation areas. This measure includes restrictions on permanent lighting, perimeter walls/fences, and site ingress/egress locations to minimize impacts to the designated conservation areas.

Mitigation Measures identified in Sections 4.1 *Aesthetics*, 4.4 *Biological Resources*, and 4.10 *Land Uses* as well as other measures combined will ensure that impacts associated with new project development in the CHCCSP project area would be less than significant on surrounding properties and that proposed land uses will be compatible.

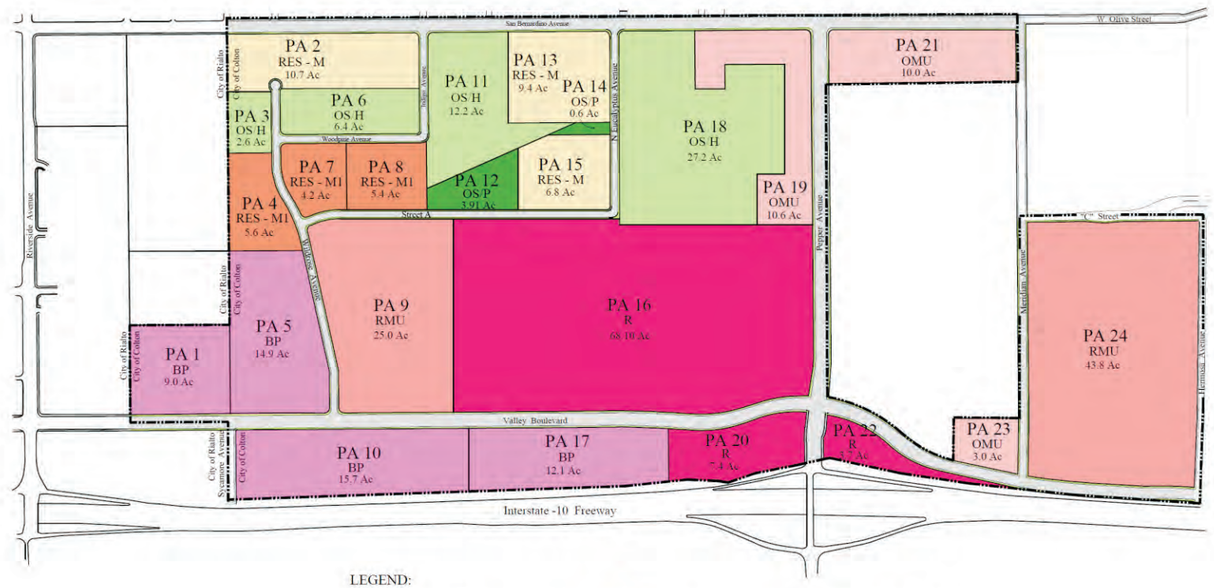
LEGEND FOR EXISTING WVSP:

RR	Regional Retail
HRM	Hospitality Retail / Medical Support
BIP	Business / Industrial Park
OS/P	Open Space / Park
OS/GC	Open Space / Golf Course
OS/C	Open Space / Cemetary



Existing West Valley Specific Plan

WVSP		CHCCSP	
RESIDENTIAL		**RESIDENTIAL**	Acres
none		RES-M	26.9
		RES-M 1	15.2
COMMERCIAL		**COMMERCIAL**	
RR	63 ac	R	79.2
HRM	23 ac	RMU	68.8
BIP	227 ac	OMU	23.6
		BP	51.7
OPEN SPACE		**OPEN SPACE**	
OS/P	10 ac	OS/P	4.51
OS/GC	49 ac	OS/H	48.34
OS/C	30 ac		



LEGEND:

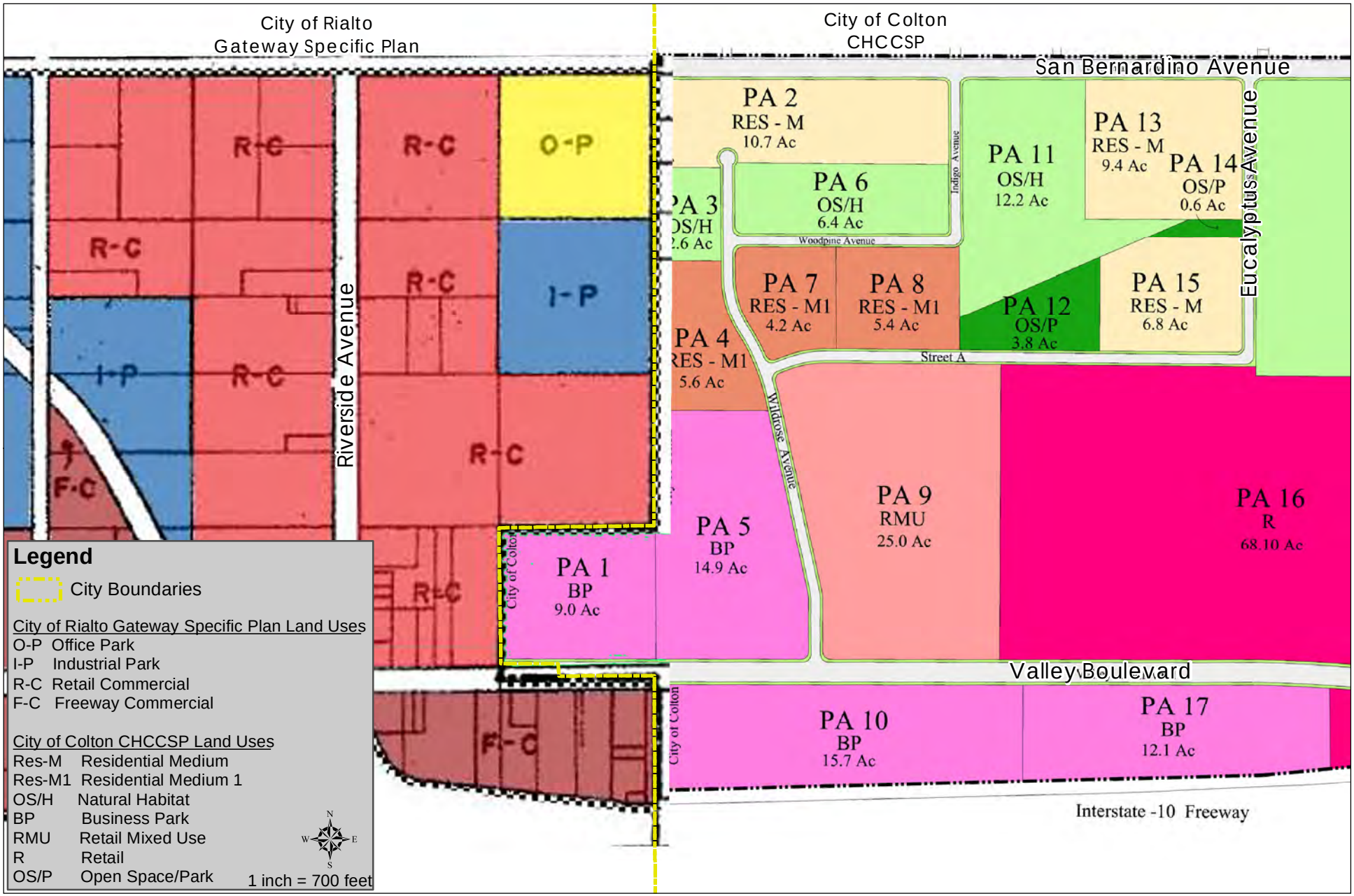
RES-M	(Medium)	R	Retail	OS/P	Open Space / Park
RES-M1	(Medium - 1)	OMU	Office Mixed Use	OS/H	Natural Habitat
RMU	Retail Mixed Use	BP	Business Park		

Proposed Colton's Hub City Center Land Use Plan

The Altum Group

Existing and Proposed Plans
CHCCSP Environmental Impact Report

Exhibit
4.10-1



The Altum Group

Gateway Specific Plan and CHCCSP Land Uses
CHCCSP Environmental Impact Report

Exhibit
4.10-2

4.11.1 Introduction

This section describes the existing mineral resources and potential effects from project implementation on the CHCCSP and its surrounding area. Descriptions and analysis in this section are primarily based on information contained in the California Department of Conservation's Mineral Land Classification report.

4.11.2 Environmental Setting

4.11.2.1 Regulatory Setting

State Regulations

The Surface Mining and Reclamation Act (SMARA) requires the State Geologist to research and prepare reports that designate mineral deposits of statewide and regional significance. The California Geological Survey has produced a report and Mineral Land Classification Map for the area that designates Mineral Resource Zones (MRZs) that define areas where important Production- Consumption deposits occur. The MRZs are defined as follows:

MRZ-1 Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

MRZ-2 Defined as areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.

MRZ-3 Defined as areas containing mineral deposits, the significance which cannot be evaluated from available data, but that may contain deposits that are marketable under present technologic and economic conditions or which can be estimated to exist in the foreseeable future.

MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.

The CHCCSP project area occurs within an area that has been classified as MRZ-3.

City of Colton

According to the City of Colton General Plan Open Space Element, mineral resources in the Colton area may not all be identified despite comprehensive research by the division of mines and geology. With future geologic surveying, additional deposits may be discovered; however, the main resource is currently the limestone deposits in and around Slover Mountain (located approximately 0.28 miles southeast of the project site). Extractive processes of mineral resources must be regulated to provide for the health and safety of people. Additionally,

depleted extraction sites need to be restored to useable condition and known deposits of minerals not now accessible or needed should be protected and conserved for future generations.

4.11.3 Environmental Impacts and Mitigation Measures

4.11.3.1 Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines' Appendix G Environmental Checklist, to determine whether impacts to mineral resources are significant environmental effects, the following questions are analyzed and evaluated:

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?

4.11.3.2 Impact Analysis

a) Loss of Known Mineral Resources

According to the California Department of Conservation's Mineral Land Classification report, the project site is in an area that has been classified as MRZ-3. These are areas where the significance of mineral deposits cannot be evaluated from available data. Similarly, according to the City of Colton General Plan, mineral resources in the Colton area may not all be identified despite the comprehensive research conducted by the division of mines and geology. However, the main resource within the City is the limestone deposits in and around Slover Mountain, which is located approximately 0.28 miles southeast of the project site. The City's General Plan Principle and Standards proposes to protect significant mineral deposit sites from irreplaceable resource extraction located within City boundaries.

Although the project site is located in an area where the significance of mineral deposits cannot be evaluated from available data, extraction and processing of minerals would create a significant impact to sensitive receptors, including the Arrowhead Regional Medical Center located directly adjacent to the project site and surrounding residential uses. Therefore, the likelihood of extracting unknown significant mineral resources residing on the project site is very low.

In addition, no mining operations currently occur on or in close proximity of the site; nor does information suggest that mining operations have been conducted on or in close proximity of the site in the past. Accordingly, there is no evidence, which indicates that the project site contains

any mineral resource that could be of value on a regional or State level. Therefore, impacts from the development of the site would be less than significant.

b) Loss of Mineral Resource Recovery Site

According to the California Department of Conservation's Mineral Land Classification report, the project site has not been designated as a mineral resource recovery area, known as a "Sector." In addition, as indicated in Impact MR-1, no mining operations currently occur on or in close proximity of the site; nor does information suggest that mining operations have been conducted on or in close proximity of the site in the past. In addition, the project site is not delineated as a locally important mineral resource recovery site by the City's General Plan or any other land use plan. Accordingly, there is no evidence that indicates the project site contains any mineral resource that could be of value on a regional or State level. Therefore, the development of the site is not expected to result in the loss of a mineral resource recovery site.

4.11.3.3 Mitigation Measures

No mitigation required.

4.11.3.4 Level of Significance After Mitigation

Not applicable.

4.12.1 Introduction

This section describes the existing noise environment and potential effects from implementation of the CHCCSP and how future uses in the project area may affect the existing environment, particularly in the vicinity of the Arrowhead Regional Medical Center. Descriptions and analysis in this section are based on information contained in the Noise Assessments prepared for the project area. The first was, *Noise Assessment for: West Valley Specific Plan, City of Colton* prepared by Mestre Greve Associates, December 2008. This assessment was prepared for the WVSP Amendment project which was not adopted. The second assessment, *Colton's Hub City Centre Specific Plan Noise Impact Analysis* was prepared by Kunzman Associates in 2014. The 2008 Noise Assessment was evaluated for its relevance to the CHCCSP project area by Kunzman Associates prior to commencing with the 2014 Assessment. Based on this evaluation, Kunzman's Noise Specialist concluded that it was relevant and provided an accurate characterization of existing conditions in the project area. Therefore, the baseline from which to evaluate the CHCCSP, including noise measurements is described in the 2008 Noise Assessment. Both assessments are included in Appendix H.

4.12.2 Environmental Setting

4.12.2.1 Fundamentals

Noise Fundamentals

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; and 20 dB higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud).

Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) represents this scale by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the "A-weighted decibel," abbreviated dBA.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption and ground attenuation. As the sound wave form travels away from the source, the sound energy is dispersed over a greater area, thereby dispersing the sound

power of the wave. Atmospheric absorption also influences the levels that are received by the observer. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of the frequency of the sound as well as the humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity also play a significant role in determining the degree of attenuation. Intervening topography can also have a substantial effect on the effective perceived noise levels.

Vibration Fundamentals

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (RMS) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as L_V and is based on the RMS velocity amplitude. A commonly used abbreviation is VdB, which in this text, is when the particle velocity level (L_V) or sound velocity level (SVL) is based on the reference quantity of 1 microinch per second. The L_V should not be confused with the speed of sound.

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration.

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform median, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy

along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests. Table 4.12-1 shows the peak particle velocities of some common construction equipment.

Table 4.12-1 Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

4.12.2.2 Noise Assessment Metrics

The definitions of commonly used acoustical terms are presented in Table 4.12-2, *Definitions of Acoustical Terms*. The description, analysis and reporting of community noise levels around communities is made difficult by the complexity of human response to noise and the myriad of noise metrics that have been developed for describing noise impacts. Each of these metrics attempts to quantify noise levels with respect to community response. Most of the metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies.

Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event such as an aircraft fly over or perhaps a heavy equipment pass-by. Cumulative metrics average the total noise over a specific time

Table 4.12-2 Definition of Acoustical Terms

Term	Definition
Decibel, dB	A logarithmic unit of noise level measurement that relates the energy of a noise source to that of a constant reference level; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hertz	In a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., the number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear.
Root Mean Square (RMS)	A measure of the magnitude of a varying noise source quantity. The name derives from the calculation of the square root of the mean of the squares of the values. It can be calculated from either a series of lone values or a continuous varying function.
Fast/Slow Meter Response	The fast and slow meter responses are different settings on a sound level meter. The fast response setting takes a measurement every 100 milliseconds, while a slow setting takes one every second.
L_{02}, L_{08}, L_{50}, L_{90}	The A-weighted noise levels that are equaled or exceeded by a fluctuating sound level, 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
Equivalent Continuous Noise Level, L_{eq}	A level of steady state sound that in a stated time period, and a stated location, has the same A-weighted sound energy as the time-varying sound.
L_{max}, L_{min}	L_{max} is the RMS (root mean squared) maximum level of a noise source or environment measured on a sound level meter, during a designated time interval, using fast meter response. L_{min} is the minimum level.
Ambient Noise Level	The all-encompassing noise environment associated with a given environment, at a specified time, usually a composite of sound from many sources, at many directions, near and far, in which usually no particular sound is dominant.
Offensive/ Offending/ Intrusive Noise	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of sound depends on its amplitude, duration, frequency, and time of occurrence, and tonal information content as well as the prevailing ambient noise level.

Source: Adapted from: Cyril M. Harris; Handbook of Acoustical Measurement and Noise Control, 1991.

period, which is typically 1 or 24-hours for community noise problems. For this type of analysis, cumulative noise metrics will be used.

Several rating scales have been developed for measurement of community noise. These account for:

1. The parameters of noise that have been shown to contribute to the effects of noise on man; (2) the variety of noises found in the environment;
2. The variations in noise levels that occur as a person moves through the environment; and
3. The variations associated with the time of day.

They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominate noise scales are the: Equivalent Noise Level (LEQ) and the Community Noise Equivalent Level (CNEL).

4.12.2.3 Existing Acoustic Setting

Sensitive Noise Receptors

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, and residential uses make up the majority of these areas. The State of California has also established land use compatibility guidelines that set forth recommended noise levels for land uses that are typically not considered to be “sensitive” e.g. office, retail, commercial and recreational uses.

The following land uses located either within the CHCCSP project area or in the immediate vicinity of the project area are most likely to be affected by construction and/or operational noise associated with future land uses in the project area.

- Hotel, and single-family residential land uses located north of I-10 Freeway from project eastern boundary to vicinity of Acacia Avenue;
- Multiple family residential located north of San Bernardino Avenue and Wildrose Avenue;
- Church located at the southwest corner of intersection of San Bernardino Avenue and Pepper Avenue;
- Single-family residential located in the vicinity of northwest corner of the intersection of San Bernardino Avenue and Meridian Avenue;

- Cathedral of Praise Church located east of Riverside Avenue;
- Rialto Retirement Home, Vista Cove Care Center and related retail, all located east of Riverside Avenue approximately 670 feet south of San Bernardino Avenue;
- Medical offices located east of Riverside Avenue;
- Arrowhead Regional Medical Center located east of Pepper Avenue from Olive Street to Valley Boulevard;
- Hermosa Gardens Cemetery located at the southeast corner of the intersection of Meridian Street and San Bernardino Avenue; and
- Slover Mountain High School located west of Hermosa Avenue.

In addition to these sensitive receptors, sensitive species such as the Delhi Sands Flower-Loving Fly (DSF) occupy habitat that will be affected by future land use in the CHCCSP project area.

Existing Ambient Noise Levels

Fifteen short-term noise measurements were taken for the Mestre Greve Noise Assessment in 2008. Review of these sites within the context of 2014 conditions showed that the locations where these measurements were taken exhibited similar conditions to those found in 2008. Therefore, these measurements were deemed to still be appropriate and no new measurements were taken. Noise measurement locations are shown on Exhibit 4.12-1, *Noise Measurement Sites*, and measured noise levels are shown in Table 4.12-3, *Ambient Noise Levels*. Nine of the measurement sites were in or adjacent to the project area. The remaining six measurement sites were conducted in residential areas to the east, north and west of the project area as shown in Exhibit 4.12-1. The first twelve of the short-term measurements were taken on August 7, 2008 between the hours of 9:44 AM and 3:41 PM. The remaining three measurements were taken on August 11, 2008 between the hours of 10:30 AM and 12:13 PM. The site locations are as follows:

1. Corners of Hermosa Avenue and Valley Boulevard, Meridian Avenue, Hermosa Avenue, San Bernardino Avenue,
2. Corners of Olive Street and Lydon Drive,
3. Corners of Pepper Avenue and Randall Avenue, Pepper Avenue, George E. Brown Jr. Park,
4. Corners of Indigo Avenue and San Bernardino Avenue, Eucalyptus Avenue, Sycamore Avenue,
5. Corners of San Bernardino Avenue and Idyllwild Avenue, Caesar Chavez Park,
6. Corners of Wildrose Avenue and Woodpine Avenue, and Rialto City Park.

Table 4.12-3 Ambient Noise Levels

Site #	Site Description	Time	Leq	Lmax	Lmin	L_{25}	L_{50}	L_{90}
1	Corner of Hermosa Avenue and Valley Blvd	9:44	73.9	77.8	69.2	74.5	73.5	71.5
2	Meridian Avenue	10:24	61.3	74.8	53.6	61.0	59.0	56.5
3	Hermosa Avenue	10:55	51.1	69.1	46.3	50.5	50.0	48.0
4	San Bernardino Avenue	11:23	64.8	81.5	45.1	58.5	58.5	47.5
5	Corner of Olive Street at Lydon Street	11:54	60.4	79.1	43.9	59.0	53.5	46.5
6	Corner of Pepper Avenue at Randall Avenue	12:26	72.7	86.7	45.5	72.5	67.5	56.0
7	Pepper Avenue	12:58	70.4	85.6	50.2	70.5	65.5	54.5
8	George E. Brown Jr. Park (corner of San Bernardino and Eucalyptus)	13:31	48.8	62.6	44.1	48.0	47.0	45.5
9	Corner of Indigo Ave and San Bernardino Ave	14:01	63.2	80.2	49.1	62.5	60.0	53.5
10	Eucalyptus Avenue	14:27	55.4	69.8	51.4	55.5	54.5	53.0
11	Sycamore Avenue	14:52	80.2	87.0	72.4	81.0	79.5	76.5
12	Corner of San Bernardino Avenue at Idyllwild Avenue	15:25	64.0	82.2	47.1	62.5	57.0	50.5
13	Caesar Chavez Park	10:33	58.5	77.3	48.2	57.5	55.5	51.5
14	Corner of Wildrose Ave and Woodpine Ave	11:19	57.9	71.5	45.8	57.5	53.0	47.5
15	Rialto City Park on San Bernardino Avenue	11:53	50.8	65.4	44.4	51.0	49.5	46.5

Source: Mestre Greve Noise Assessment for West Valley Specific Plan, 2008 (EIR Appendix H.1).

Site locations were chosen to represent the entire project area including sensitive habitat for DSF in planning areas 3, 6, 11 and 18 as well as existing conservation sites on Valley Blvd east of Pepper Avenue.

Ambient noise levels in the project area range from 48.8 to 73.9 dB L_{eq}. Field observations during each measurement are included as Appendix A in 2014 Noise Assessment (EIR Appendix H.1).

Measurements at all sites were performed using a Brüel & Kjær Model 2236 automated digital noise data acquisition system and sound meter mounted on a tripod. During measurements, a large windscreen covered the sound meter's microphone to dampen-out the effect of

unwanted wind-generated noise. For each measurement site, at least 15 minutes of data were collected and stored internally within the sound meter for subsequent downloading and post-processing on a computer. Both before and after each set of measurements were taken, a Brüel & Kjær calibrator with calibrations traceable to the National Institute of Standards and Technology was used to calibrate the sound meter to ensure that the measured sound levels readings were accurate. Sound level data samples were recorded at 1-second intervals. At the conclusion of each set of measurements, the Leq, Lmin, Lmax, L25, L50 and L90 values for the full time period were written down on a data sheet and then the buffer on the sound meter was reset to prepare it for the set of measurements at the next site. Prevailing weather conditions were noted along with any other factors that might adversely affect the noise measurements.

Existing Road Segment Noise Levels

Existing traffic noise levels associated with existing and proposed road segments were modeled utilizing the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December, 1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing the results in the CNEL for the traffic projections were used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, 70, and 75 CNEL contours are found.

Existing traffic volumes were obtained from the traffic study prepared by Kunzman Associates, Inc. (EIR Appendix I). The volumes, along with speeds and traffic mixes that were used to calculate the noise levels associated with vehicle traffic are presented in Appendix B of the Kunzman's *Noise Assessment* (EIR Appendix H.2). FHWA output is presented in Appendix C of Kunzman's Noise Assessment.

Worst-case assumptions about future motor vehicle traffic and noise levels were made and incorporated in the modeling effort. Specifically, no reductions in motor vehicle noise have been assumed in spite of legislation requiring quieter vehicles at the time of manufacture.

Existing CNEL noise contours for the roadways in the vicinity of the project site are shown on Exhibit 4.12-2, *Existing On-Site Traffic Noise Contours*. Note: the noise contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels.

Existing Aircraft Noise Levels

The closest major airport to the project site is Ontario Airport. Ontario Airport is 13 miles from the project site. The 60 CNEL noise contour of Ontario Airport is over eight miles from the project site, so the CNEL noise levels at the project site due to Ontario Airport will be much less than 60 CNEL, and there will be no noise impact. The remaining nearby airports are only small municipal airports that typical support only small, quieter, non-jet aircraft. The closest small airport is the Rialto Municipal Airport, which is four miles from the project site. Aircraft do fly over the project site as was confirmed during noise measurements, however, because of the combination of the relatively low frequency of occurrence of these flyovers, the short time duration of the flyovers, the large distance of the flying aircraft to the project site (e.g. the altitude of flying aircraft), and the low intensity of the noise energy emitted by these aircraft results in noise impacts at the project site that are only sufficient to make minor alterations to the average ambient noise level. Aircraft noise does not significantly impact the project area.

Existing Train Noise Levels

Colton has an extensive railroad network and is the home of the Colton Crossing, which is the main thoroughfare for most trains entering or exiting California at-grade. The Union Pacific Railroad line that travels east/west is adjacent to and south of the I-10 Freeway, which itself is south of, and adjacent to the project site. There is also a spur line track that is located along the east side of Hermosa Avenue that defines the easterly boundary of the CHCCSP project area.

To determine the existing train noise levels, the Wyle Noise Model was used ("Assessment of Noise Environments Around Railroad Operations," Wyle Laboratories Report WCR-73-5, July, 1973). The noise generated by train operations can be divided into two components; noise generated by the engine or locomotive, and noise generated by the railroad cars. The characteristic frequency of the engine is different than the characteristic frequency of the cars. The noise generated by the engine is the result of the mechanical movements of the engine parts, and to a lesser extent, the exhaust system. The noise generated by the cars (and the engine for that matter) is a result of the interaction between the wheels and the railroad track. A zero source height is used for the car noise, and a source height of 10 feet is utilized for the locomotive.

The existing operational data presented in Table 4.12-4, *Existing Railroad Operations Modeled* was utilized in conjunction with the Wyle Noise Model to estimate train noise levels on the project site. The results of the existing train noise projections are displayed in Table 4.12-5 in terms of the distances to the 60, 65, and 70 CNEL noise contours. These numbers represent the distances from the center of the railroad line to the noise contour value shown. These

projections do not include topography or barriers that may reduce the noise levels.

Table 4.12-4 Existing Railroad Operations Modeled

Train	Number of Cars	Speed (MPH)	Number of Operations		
			Daytime (7:00 AM to 7:00 PM)	Evening (7:00 PM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
Freight	66	23	28	6	26

Source: Mestre Greve Associates, 2008 (EIR Appendix H.1)

The closest distance from any portion of the project site to the center of the railroad track line south of the I-10 Freeway is about 370 feet. At this distance, the highest existing CNEL noise level at the project site due to the railroad operations is 70.2 dBA.

4.12.2.4 Regulatory Environment

Federal

Federal Noise Control Act of 1972

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In response, the EPA published Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Levels of Environmental Noise). The Levels of Environmental Noise recommended that the Ldn should not exceed 55 dBA outdoors or 45 dBA indoors to prevent significant activity interference and annoyance in noise-sensitive areas.

In addition, the Levels of Environmental Noise identified five dBA as an "adequate margin of safety" for a noise level increase relative to a baseline noise exposure level of 55 dBA Ldn (i.e., there would not be a noticeable increase in adverse community reaction with an increase of five dBA or less from this baseline level). The EPA did not promote these findings as universal standards or regulatory goals with mandatory applicability to all communities, but rather as advisory exposure levels below which there would be no risk to a community from any health or welfare effect of noise.

In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating

noise control policies were transferred to State and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place by designated Federal agencies, allowing more individualized control for specific issues by designated Federal, State, and local government agencies.

Federal Transit Administration

The Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2006) provides guidance for the analysis of noise and vibration associated with federally-funded transit projects. Section 7 of the manual discusses basic ground-borne vibration concepts including terminology, applicable descriptors, analysis procedures, thresholds and recommended mitigation for groundborne noise and vibration. Groundborne vibration thresholds included in this manual are frequently utilized for state and local projects where local thresholds for the analysis of groundborne noise and vibration have not been adopted.

As shown in Table 4.12-5, *Ground Bourne Vibration (GVB) and Ground Bourne Noise (GBN) Impact Criteria for General Assessments*, the FTA's maximum acceptable vibration standard for human annoyance in residences where people normally sleep is 80 VdB (less than 70 vibration events per day).

Table 4.12-5 Ground Bourne Vibration (GVB) and Ground Bourne Noise (GBN) Impact Criteria for General Assessments

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)			GBN Impact Levels (dB re 20 micro Pascals)		
	Frequent Events`	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep.	72VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime uses.	75VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: FTA Noise and Vibration Manual.

Notes:

1. "Frequent Events" is defined as more than 70 vibration event of the same source per day. Most rapid transit projects fall into this category.

2. “Occasional Events" is defined between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. “Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

State of California

Building Standards Code

The State of California has adopted noise standards in areas of regulation not preempted by the Federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation. Title 24 of the California Code of Regulations, also known as the California Building Code, establishes building standards applicable to all occupancies throughout the State. The code provides acoustical regulations for both exterior-to-interior sound insulation, as well as sound and impact isolation between adjacent spaces of various occupied units. Title 24 regulations state that interior noise levels generated by exterior noise sources shall not exceed 45 dBA Ldn/CNEL, with windows closed, in any habitable room for multi-family residential uses.

California Building Code. Section 1208A, Sound Transmission, of the Building Code requires acoustical evaluation and insulated building design and construction when exterior noise levels exceed 60 Ldn/CNEL. New residential construction must be acoustically designed and constructed to reduce the intrusion of transportation noise and local fixed noise sources. The California Building Code requires a minimum Sound Transmission Class of 50 (STC50) and Impact Isolation Class 50 (IIC50) for multiple family residential units located where exterior noise levels exceed 60 Ldn/CNEL.

The non-residential mandatory measures found in Title 24, Part 11, Section 5.507.4.1 of the California Code of Regulations requires the use of wall and roof-ceiling assemblies that make up the building envelope to have an STC of at least 50 and exterior windows must have minimum STC of 30 for any of the following building locations:

1. Within 1,000 ft (300 m) of right of ways of freeways;
2. Within 5 mi. (8 km) of airports serving more than 10,000 commercial jets per year; and
3. Where sound levels at the property line regularly exceed 65 decibels, other than occasional sound due to church bells, train horns, emergency vehicles and public warning systems.

Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings are exempt from this section of code.

General Plan Guidelines 2003

Though not adopted by law, the State of California General Plan Guidelines 2003, published by the California Governor's Office of Planning and Research (OPR) (OPR Guidelines), provide guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., Ldn or CNEL) and in the upper limits for the Normally Acceptable outdoor exposure of noise-sensitive uses. The OPR Guidelines include a Noise and Land Use Compatibility Matrix which identifies acceptable and unacceptable community noise exposure limits for various land use categories. As discussed below, the City of Colton has included this table in the Noise Element of their General Plan.

California Department of Transportation (Caltrans)

The Caltrans Transportation and Vibration Guidance Manual recommends a maximum vibration level standard of 0.2 in/sec PPV for the prevention of structural damage to typical residential buildings.

County of San Bernardino

Noise Ordinance

A noise ordinance is designed to control unnecessary, excessive and annoying sounds from stationary (non-transportation) noise sources. Noise ordinance requirements cannot be applied to mobile noise sources such as heavy trucks when traveling on public roadways. Federal and State laws preempt control of mobile noise sources on public roads. Noise ordinance standards typically apply to industrial and commercial noise sources impacting residential areas. They are also applicable to noise generated at parks and schools impacting residential areas.

The City of Colton's municipal code prohibits the production of excessive noise, but the wording of the code describing noise violations is qualitative and nonspecific in regards to the level of noise that would constitute a violation. Since the City of Colton is under the jurisdiction of the County of San Bernardino, and the City of Colton does have a noise ordinance that provides

maximum permissible noise levels that are quantifiable, the County of San Bernardino noise ordinance will be applied to this project to determine potential noise impacts.

Section 83.01.080 of the County of San Bernardino Development Code establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses. Sections of the code applicable to the proposed project are presented below.

Noise level limits for Stationary Sources, as they affect adjacent properties (Section 83.01.080(c)(1) of County Development Code) are presented in Table 4.12-6, *Noise Standards for Stationary Noise Sources (Development Code Table 83-2),* at night (10:00 PM to 7:00 AM).

However, if the measured ambient level exceeds any of the first four noise limit categories, the allowable noise exposure standard shall be increased to reflect the ambient noise level; and if the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

Table 4.12-6 Noise Standards for Stationary Noise Sources (Development Code Table 83-2)

Affected Land Uses (Receiving Noise)	7:00 AM to 10:00 PM dBA L_{eq}	10:00 PM to 7:00 AM dBA L_{eq}
Residential	55	45
Professional Services	55	55
Other Commercial	60	60
Industrial	70	70

Source: County of San Bernardino Development Code (Table 83-2)

Notes:

Noise limit categories. No person shall operate or cause to be operated a source of sound at a location or allow the creation of noise on property owned, leased, occupied, or otherwise controlled by the person, which causes the noise level, when measured on another property, either incorporated or unincorporated, to exceed any one of the following:

(A) The noise standard for the receiving land use as specified in Subsection B (Noise-impacted areas), above, for a cumulative period of more than 30 minutes in any hour.

(B) The noise standard plus 5 dB(A) for a cumulative period of more than 15 minutes in any hour.

(C) The noise standard plus 10 dB(A) for a cumulative period of more than five minutes in any hour.

(D) The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any hour.

(E) The noise standard plus 20 dB(A) for any period of time.

If the measured ambient level exceeds any of the first four noise limit categories, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

Temporary construction, maintenance, repair, or demolition activities between 7:00 AM and 7:00 PM, except Sundays and Federal holidays are exempt from Section 83.01.080 the San Bernardino Development Code.

The County of San Bernardino Development Code also sets forth standards for noise generated

by mobile sources on adjacent properties. Mobile noise sources on adjacent properties are not to exceed the standards described in Table 4.12-7, *Noise Standards for Adjacent Mobile Noise Sources*.

City of Colton

General Plan Noise Element

The City of Colton General Plan Noise Element specifies outdoor and indoor noise standards for various land uses impacted by transportation noise sources. The City's noise standards, shown in Table 4.12-7 are consistent with the State of California's noise standards shown in Table 4.12-8, *Land Use Compatibility for Community Noise Environments (dBA, CNEL or Ldn)*. The interior and exterior noise standards are in terms of the Community Noise Equivalent Level (CNEL).

Table 4.12-7 Noise Standards for Adjacent Mobile Noise Sources

Land Use		L_{dn} (or CNEL) dB(A)	
Categories	**Uses**	**Interior[1]**	**Exterior[2]**
Residential	Single and multi-family, duplex, mobile homes	45	60[4]
Commercial	Hotel, motel, transient housing	45	60[4]
	Commercial retail, bank, restaurant	50	n/a
	Office building, research and development, professional offices	45	65
	Amphitheater, concert hall, auditorium, movie theater	45	n/a
Institutional/Public	Hospital, nursing home, school classroom, religious institution, library	45	65
Open Space	Park	n/a	65

Source: County of San Bernardino Development Code (Table 83-3)

Notes:

1. The indoor environment shall exclude bathrooms, kitchens, toilets, closets and corridors
2. The outdoor environment shall be limited to:
    a. Hospital/office building patios
    b. Hotel and motel recreation areas
    c. Mobile home parks
    d. Multi-family private patios or balconies
    e. Park picnic areas
    f. Private yard of single-family dwellings
    g. School playgrounds
3. An exterior noise level of up to 65 dB(A) (or CNEL) shall be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB(A) (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level shall necessitate the use of air conditioning or mechanical ventilation.

Table 4.12-8 Land Use Compatibility for Community Noise Environments (dBA, CNEL or Ldn)

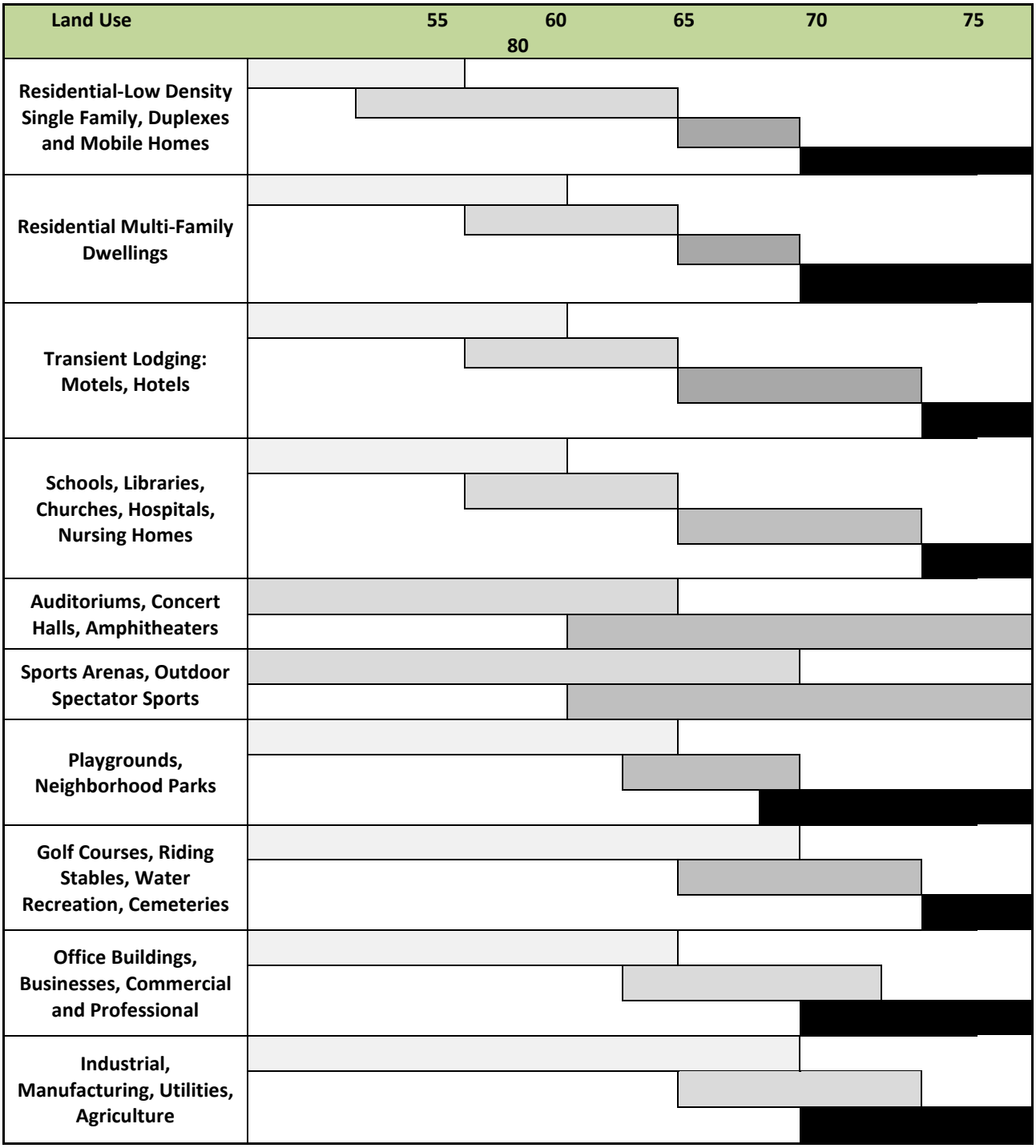


Table 4.12-8 Land Use Compatibility for Community Noise Environments

(dBA, CNEL or Ldn) (continued)

Normally Acceptable:	Conditionally Acceptable:	Normally Unacceptable:	Clearly Unacceptable:
Specified land uses is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation or requirements.	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.	New construction and development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.	New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: City of Colton General Plan Noise Element Table 5-1, 1987

The standards state that for residential land use, the exterior noise exposure level shall not exceed 65 CNEL and the interior noise exposure level shall not exceed 45 CNEL. The City has not adopted noise standards for commercial uses. The County of San Bernardino Noise Element specifies an interior noise standard of 45 CNEL for office uses and will be used to evaluate impacts on these uses.

Municipal Code

18.42.050 – Vibration. The City prohibits all activities that generate ground vibration by equipment other than motor vehicles, trains or by temporary construction or demolition, which is perceptible without instruments by the average person at or beyond any lot line of the lot containing the activities.

4.12.3 Environmental Impacts and Mitigation Measures

4.12.3.1 Thresholds of Significance

According to the State CEQA Guidelines' Appendix G and the City of Colton Guidelines for implementing CEQA, to determine whether impacts to the acoustic environment are significant, the following questions are analyzed and evaluated. Where available, the significance criteria established by the State of California, the County of San Bernardino and/or the City of Colton are also considered. The following criteria were used in the analysis of Noise impacts: 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 ground borne vibration or ground borne 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?

The State, County and City standards for noise are identified in Section 4.12.2.4 above. In addition, to these standards related to humans, this EIR also considers impacts on acoustic environment that may adversely affect the DSF and other endangered species that inhabit the planning areas set aside as part of the HCP (see Section 4.4, Biological Resources).

Finally, increases in noise levels associated with specific Traffic and Stationary noise were evaluated based on the following criteria.

Traffic Noise

Roadway noise impacts would be considered significant if the project increases noise levels at a noise sensitive land use by 3 dBA CNEL and if: (1) the existing noise levels already exceed the residential land use compatibility standard for "normally acceptable" (65 dBA CNEL), or (2) the project increases noise levels from below the 65 dBA CNEL standard to above 65 dBA CNEL.

Stationary Noise

Project operations, including noise from car wash equipment and trucks, may produce an increase noise levels which disturbs the peace and quiet of adjacent residential areas or cause discomfort/annoyance to area residents. Caltrans considers a 5 dBA increase to be "readily audible," which seems to correlate most closely to "substantial increase." For the purposes of the Noise Assessment, a substantial permanent increase in ambient noise levels due to stationary noise sources shall be considered 5 dBA L_{eq}.

4.12.3.2 - Project Impacts and Mitigation Measures

a and d) Generation of Noise Levels in Excess of Established Standards

This discussion is limited to temporary noise impacts associated with construction. Permanent long term operational noise is evaluated in Impact "c."

Temporary Noise Impacts

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Demolition and grading activities will have similar noise levels.

Examples of construction noise at 50 feet are presented on Exhibit 4.12-3, *Construction Equipment Noise Levels*. The maximum noise level for most of the equipment that will be used during the construction is 70 to 95 dBA at a distance of 50 feet. Noise levels at further distances are lower. For example, at 200 feet, the maximum construction noise levels range from 58 to 83 dBA. Note that these noise levels are based upon worst-case conditions. Noise measurements made by Mestre Greve Associates for other projects show that the noise levels generated by commonly used grading equipment (i.e. loaders, graders and trucks) generate noise levels that typically do not exceed the middle of the range shown on Exhibit 4.12-3. These noise levels will be used as the basis for the estimates presented here and represent a worst-case estimate. A summary of existing land uses that may be affected by project construction noise and a discussion of the potential impacts to each is presented below. Note: sensitive land uses include habitat for DSF and other sensitive species.

Maximum construction noise levels at hotels and single-family residential units located between Valley Blvd and the I-10 Freeway could reach up to 95 dBA as a result of redevelopment activities that could occur immediately adjacent to them or new development that may occur directly to the north on the north side of Valley Blvd. It should be noted that noise levels in this area are already quite high due to I-10 Freeway vehicle traffic and construction noise would be less noticeable in this area than at other sensitive receptors in the project vicinity. Nevertheless, construction mitigation measures listed at the end of this section (measures N-1 and N-2) would be implemented to minimize potential impacts. With regard to DSF and other sensitive species, the area between Valley Blvd and the I-10 Freeway is already developed with urban uses except for the existing golf course which does not contain DSF habitat. Trees associated with the golf course that could be used for nesting and roosting are all located away from the noise impact area associated with the freeway and Valley Blvd.

Construction activities could occur immediately adjacent to the Colton Golf Club and could negatively impact the golfing environment if it continues to be operational while other areas of the specific plan are developed. If adjacent properties are developed prior to the closure of the Colton Golf Club, construction mitigation measures listed at the end of this section (measures N-1 and N-2) would be implemented to minimize potential impacts.

Construction noise associated with development proposed along the northern boundary of the project area (planning areas 2, 13, 19, 21) could reach up to 90 dBA L_{max} at residential properties and at Rialto City Park located north of San Bernardino Avenue. These noise levels could also occur at an existing church located at near the intersection of San Bernardino Avenue and Pepper Avenue. In addition, construction noise in these planning areas could also affect the San Bernardino Social Services Building on Woodpine Avenue, the Arrowhead Regional Medical Center on Pepper Avenue, Hermosa Gardens Cemetery between Meridian and Hermosa avenues, Slover Mountain High School and at single-family residential units located along Hermosa Avenue. Construction mitigation measures listed at the end of this section would be implemented to minimize potential impacts. In addition, the planning areas proposed for permanent conservation of DFS habitat are located along San Bernardino Avenue, adjacent to the Hermosa Gardens cemetery (not a part of the CHCCSP project area but is a part of the HCP area) and could be adversely affected by construction noise.

Construction noise associated with development proposed along the northern boundary of the proposed project could reach up to 90 dBA L_{max} at the property boundaries of the San Bernardino Social Services Building, the Arrowhead Regional Medical Center, Hermosa Gardens Cemetery, Slover Mountain High School and at Single-family residential units located west of Hermosa Avenue. Construction mitigation measures listed at the end of this section (measures N-1 and N-2) would be implemented to minimize potential impacts.

Project related construction noise levels could reach up to 72 L_{max} at the Rialto Retirement Home, Vista Cove Care Center and the Cathedral of Praise Church which are all located east of the project. Construction mitigation measures listed at the end of this section (measures N-1 and N-2) would be implemented to minimize potential impacts.

It should be noted that the San Bernardino Noise Ordinance exempts construction noise between the hours of 7:00 AM and 7:00 PM on any day except Sunday or a national holiday. Although the San Bernardino ordinance has no legal authority in Colton, it does represent the concept that if construction noise is limited to time periods when people are less sensitive to noise than impacts can be avoided. If demolition or construction occurs during these periods, impacts will be minimized. Therefore, because construction impacts would be intermittent and of relatively short duration they are considered to be less than significant.

The largest area to be preserved as Open Space/Habitat (Planning Area 18) is adjacent to Planning Area 16 (68 acres of Retail Use), and Planning Area 19 (Office Mixed Use). Sensitive species could also be adversely affected by project related demolition and construction activities. There is no study on potential noise impacts to DSF. Since they live underground 95 percent of the time, it is unlikely that DSF are affected by noise. The 5 percent of the time they are above ground, it is an unknown impact but very little data exists to suggest that they would

be affected (personal communication with Thomas J. McGill, PhD, West Valley HCP author, April 23, 2014).

In addition to adherence with allowed hours for construction (Mitigation Measure N-1), implementation of Mitigation Measure N-9 will minimize potential impacts related to demolition and construction activities by requiring that no vibration generating equipment be located within 70 feet of an existing vibration sensitive land use, including conservation sites.

Therefore, because construction impacts would be intermittent and of relatively short duration relative to on-going operations of a project, impacts are considered to be less than significant with implementation of mitigation measures.

b) Groundborne Vibration or Groundborne Noise Levels

This impact assesses the potential for development projects in the CHCCSP project area to expose persons and structures to substantial vibration from construction and operational activities. Inherent in this discussion is the understanding that sensitive species could also be adversely affected by vibration. Because the City does not have any adopted vibration exposure threshold criteria, the thresholds presented in the Caltrans' Transportation- and Construction-Induced Vibration Guidance Manual (June 2004) were used in this analysis (MGA 2008).

Construction Vibration (Short-term)

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of future construction activities could respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. It is highly unlikely, however, that damage would occur. Table 4.12-1 gives approximate vibration levels for particular construction activities. This data provides a reasonable estimate for a wide range of soil conditions.

Vibratory equipment including loaded trucks, large bulldozers and a hoe-ram would be utilized during demolition activities that would include the tearing up of concrete and asphalt and the tearing down of existing structures. A vibratory roller, loaded trucks and possibly a jackhammer would be utilized to renovate and to build new structures. The vibratory roller would primarily be used during the laying of asphalt and a jackhammer may be utilized during utility relocation or installation. As shown in Table 4.12-1, a vibratory roller could produce up to a PPV of up to 0.21 inch per second at 25 feet. Use of vibratory equipment within 70 feet of a sensitive receptor could result in an exceedance of the VdB perception standard and use of vibratory

equipment within 26 feet of a sensitive receptor could exceed the ppv standard established to protect structures.

The most sensitive receptor in the vicinity is the Arrowhead Regional Medical Center. With the location of a large medical facility in proximity to the proposed Retail (Planning Area 16), Office Mixed Use (planning areas 19, 21, and 23) and Retail – Mixed Use (Planning Area 24), impacts associated with vibration could be significant. Within these planning areas a variety of retail, office and business park buildings would be developed that may include drive aisles and loading docks where large trucks would access the rear of buildings that may be adjacent property lines. Large heating, ventilation and air conditioning (HVAC) facilities may also be located near property lines, which could also have a significant impact when operating.

The largest area to be preserved as Open Space/Habitat (Planning Area 18) is adjacent to Planning Area 16 (68 acres of Retail Use), and Planning Area 19 (Office Mixed Use). As stated previously under Issue "a", no studies have been done on potential impacts to DSF populations and very little data exists to suggest that they would be affected (personal communication with Thomas J. McGill, PhD, West Valley HCP author, April 23, 2014).

In addition to adherence with allowed hours for construction (Mitigation Measure N-1), implementation of Mitigation Measure N-3 will minimize potential impacts related to demolition and construction activities by requiring that no vibration generating equipment be located within 70 feet of an existing vibration sensitive land use, including conservation sites.

Therefore, because construction impacts would be intermittent and of relatively short duration relative to on-going operations of a project, impacts are considered to be less than significant with implementation of mitigation measures.

Operational Vibration

The most sensitive receptor in the vicinity is the ARMC. With the location of a large medical facility in proximity to the proposed Retail (Planning Area 16), Office Mixed Use (planning areas 19, 21, and 23) and Retail – Mixed Use (Planning Area 24), impacts associated with vibration could be significant. Within these planning areas a variety of retail, office and business park buildings would be developed that may include drive aisles and loading docks where large trucks would access the rear of buildings that may be adjacent property lines. Large heating, ventilation and air conditioning (HVAC) facilities may also be located near property lines, which could also have a significant impact when operating. In addition, the largest area to be preserved as Open Space/Habitat (Planning Area 18) is adjacent to Planning Area 16 (68 acres of Retail Use), and Planning Area 19 (Office Mixed Use). The incorporation of mitigation measures for the control of construction noise adjacent to sensitive receptors would apply to planning areas adjacent to conservation areas both in the CHCCSP project area and in the

adjacent Cemetery, Hospital and Valley/Pepper conservation areas.

Medium and heavy delivery trucks can be expected to visit the project area on a regular basis. Heavy trucks would not be anticipated to exceed 0.10 in/sec peak particle velocity (ppv) at 10 feet (Caltrans 2002). Predicted operational related vibration levels at the nearest off-site structures, which are located in excess of 25 feet from the traveled roadway segments, would not be anticipated to exceed even the most conservative threshold of 0.2 inch/second ppv. Therefore, no mitigation is necessary.

With regard to sensitive habitat, the West Valley HCP includes a long term commitment to maintaining high quality habitat for the DSF in planning areas 3, 6, 11, and 18 as well as maintaining the existing conservation sites on Valley Blvd east of Pepper Avenue as well as within the undeveloped portion of the Hermosa Gardens Cemetery, and by extension, other sensitive species that may inhabit these planning areas. No specific measures to reduce noise levels are called out in the HCP, however, it is the City's intent to site more compatible land uses in proximity to the conservation areas. For example, future residential uses and the new park will be developed around planning areas 3, 6 and 11. For Planning Area 18, the largest conservation site at 27.2 acres, it is bounded on two sides by roads (San Bernardino Avenue on the north and Eucalyptus Avenue on the west. On the east, the conservation site is bounded by Planning Area 19 which would be developed as Office Mixed Use, and on the south by Planning Area 16 – Retail. Site plan review of future projects within these planning areas as well as Planning Area 23 which is adjacent to the existing 8-acre Hospital Conservation Site/Pepper Avenue Conservation Site, will include special focus on proposed land uses that would be adjacent to these conservation areas. The intent is to comply with specific avoidance measures set forth in the CHCCSP including location and height of perimeter walls. Section 4.4, *Biological Resources*, provides additional detail on the specific avoidance measures that must be implemented in planning areas adjacent to the conservation areas.

Therefore, compliance with CHCCSP development standards for setbacks from property lines, perimeter walls and other standards, as well as compliance with mitigation measures N-1 through N-7, noise impacts relative to on-going operations of a project are considered to be less than significant with implementation of mitigation measures.

c) Permanent Increase in Ambient Noise Levels

Project Generated Traffic Noise

Increased traffic caused by the project will result in increased traffic noise levels along the roadways in the vicinity of the project. This section examines noise impacts from the proposed project on the surrounding land uses. Specifically, traffic noise increases due to the project are examined.

Table 4.12-9, *Project Related Traffic Noise Increases (dBA CNEL)*, shows the expected incremental traffic noise level increases on road segments in the project area with and without implementation of the project.

These noise level increases were calculated using traffic volumes From the project's Traffic Impact Analysis (EIR Appendix I). Neither the City of Colton nor the County of San Bernardino has vehicle/truck mixes or Day/Evening/Night (D/E/N) splits published for use in acoustical studies. Vehicle/truck mixes and D/E/N splits for use in acoustical studies published by the Riverside County Department of Industrial Hygiene were utilized for noise modeling.

Day/Evening/Night splits and traffic mix for the I-10 Freeway were calculated from Caltrans California Freeway Performance Measurement System (PEMS) data for the I-10 Freeway adjacent to the project site for 22 days in July and August 2008 (MGA 2008, EIR Appendix H.2). The mix of automobile, medium trucks and heavy trucks were calculated from the 2006 truck mix volumes provided by Caltrans. Traffic volumes, speeds and traffic mixes for all other road segments are shown in Appendix B of the TIA (EIR Appendix I). FHWA traffic modeling output is presented in Appendix C of the TIA.

As shown in the column labeled "Project Increase" in Table 4.12-9, project generated traffic noise will result in noise increases of 3 dB or greater along the five road segments listed below along with a discussion of impacts to sensitive receptors associated with project related increases in traffic noise.

Meridian Avenue, north of Valley Boulevard

Implementation of the CHCCSP will result in traffic noise increases of up to 4.6 CNEL over Year 2016 noise levels without the proposed project and up to 4.2 CNEL over Year 2035 noise levels without new projects in the CHCCSP at land uses adjacent to Meridian Street just north of Valley Boulevard. Based on modeling results, Year 2035 traffic noise levels are not expected to exceed 65 CNEL and there are no existing sensitive receptors at this location. Therefore, this impact would be less than significant.

Olive Street, east of Rancho Avenue

Implementation of the CHCCSP will result in traffic noise increases of up to 3.5 CNEL over Year 2016 noise levels without the proposed project; and up to 3.2 CNEL over Year 2035 noise levels without new projects in the CHCCSP at land uses adjacent to Olive Street east of Rancho Avenue. Based on modeling results, noise levels at Year 2035 are not expected to exceed 62 CNEL.

Table 4.12-9 Project Related Traffic Noise Increases (dBA CNEL)

Roadway[1]	Segment	Existing	Opening Year (2016)		2035		Project Increase Year 2016	Project Increase Year 2035
			No Project	With Project	No Project	With Project		
Agua Mansa Road	West of Main Street	64.1	64.8	65.2	66.9	67.1	0.4	0.2
	East of Main Street	64.1	64.8	65.2	66.9	67.1	0.4	0.2
	East of S Rancho Avenue	55.2	57.7	57.7	63.4	63.4	0.0	0.0
Baseline Rd	West of Riverside Avenue	66.3	67.1	67.1	67.5	67.5	0.0	0.0
	East of Riverside Avenue	67.4	67.4	67.4	67.8	67.8	0.0	0.0
	West of Pepper Avenue	66.7	66.8	67.0	67.2	67.4	0.2	0.2
	East of Pepper Avenue	66.0	66.1	66.3	66.4	66.6	0.2	0.2
Bloomington Ave	West of Cedar Avenue	69.7	69.8	69.8	70.8	71.0	0.0	0.1
	East of Cedar Avenue	64.7	65.2	65.4	67.6	67.8	0.2	0.1
	West of Riverside Avenue	63.6	64.0	64.0	62.0	62.0	0.0	0.0
C Street	Meridian Avenue to Hermosa Avenue	52.4	52.8	52.8	54.5	54.5	0.0	0.0
Cedar Ave	North of Foothill Boulevard	58.8	68.8	68.9	69.2	69.3	0.1	0.1
	North of Foothill Boulevard	58.8	68.8	68.9	69.2	69.3	0.1	0.1
	South of Foothill Boulevard	68.6	68.6	68.6	69.1	69.1	0.0	0.0
	North of Rialto Avenue	67.9	68.6	68.6	69.1	69.1	0.0	0.0
	South of Rialto Avenue	68.1	68.3	68.3	69.1	69.1	0.0	0.0
	North of San Bernardino Avenue	68.1	68.2	68.3	68.6	68.7	0.1	0.1
	San Bernardino Avenue to Valley Boulevard	68.4	68.5	68.7	68.8	69.0	0.2	0.2
	Valley Boulevard to I-10 Freeway	71.0	71.4	71.6	72.1	72.2	0.1	0.1
	I-10 Freeway to Slover Avenue	68.8	68.9	69.1	69.7	69.8	0.2	0.1
	South of Slover Avenue	68.1	68.2	68.3	68.5	68.6	0.1	0.1
Columbia Ave	East of Riverside Drive	65.4	65.5	65.6	65.9	66.0	0.1	0.1
Etiwanda Ave	West of Riverside Avenue	58.6	58.7	58.7	59.5	59.5	0.0	0.0
	East of Riverside Avenue	58.5	58.6	58.6	59.6	59.6	0.0	0.0
Foothill Blvd	West of Cedar Avenue	69.1	69.2	69.3	69.9	70.0	0.1	0.1
	East of Cedar Avenue	68.8	69.0	69.2	69.8	70.0	0.2	0.1
	West of Riverside Avenue	68.6	68.7	68.9	69.5	69.6	0.2	0.2
	East of Riverside Avenue	69.0	69.2	69.3	70.3	70.4	0.2	0.1

Table 4.12-9 Project Related Traffic Noise Increases (dBA CNEL) (Continued)

Roadway[1]	Segment	Existing	Opening Year (2016)		2035		Project Increase Year 2016	Project Increase Year 2035
			No Project	With Project	No Project	With Project		
Foothill Blvd	West of Pepper Avenue	67.7	68.0	68.3	69.5	69.7	0.3	0.2
	East of Pepper Avenue	67.7	67.8	67.9	68.3	68.4	0.2	0.1
Hermosa Ave	C Street to Valley Boulevard	39.8	39.8	39.8	39.8	39.8	0.0	0.0
Highland Ave	West of Pepper Avenue	64.0	64.1	64.6	64.4	64.9	0.5	0.4
	East of Pepper Avenue	64.0	64.7	64.7	67.7	67.7	0.0	0.0
Jurupa Ave	Willow Avenue to Riverside Avenue	59.7	60.0	60.0	61.6	61.6	0.0	0.0
La Cadena Dr	North of Rancho Avenue	66.0	66.4	66.4	68.4	68.4	0.0	0.0
	South of Rancho Avenue	69.0	69.4	69.7	71.3	71.6	0.4	0.2
	North of I-215 Freeway	66.4	66.8	67.2	68.8	69.0	0.4	0.3
	South of I-215 Freeway	67.6	67.8	67.8	68.8	68.8	0.0	1.1
Main Street	Placentia Lane to Columbia Avenue	68.7	68.9	69.3	70.4	70.7	0.4	0.3
	Columbia Avenue to SR-60 Freeway	68.5	69.0	69.3	71.1	71.4	0.4	0.2
	South of SR-60	67.9	67.9	68.0	68.3	68.4	0.1	0.0
Meridian Ave	North of Olive Street	60.1	60.2	61.0	60.6	61.3	0.8	0.7
	South of Olive Street	60.1	60.1	61.3	60.7	61.8	1.2	1.1
	North of Valley Boulevard	59.9	59.9	64.5	60.5	64.7	4.6	4.2
Merrill Ave	West of Riverside Avenue	55.4	55.8	56.0	60.9	61.0	0.2	0.1
	Riverside Avenue to Acacia Avenue	60.6	60.7	60.7	61.1	61.1	0.0	0.0
	Acacia Avenue to Pepper Avenue	57.9	58.0	59.2	58.4	59.4	1.2	1.1
Mill Ave	East of Pepper Avenue	58.9	58.9	59.4	59.2	59.7	0.5	0.4
Mount Vernon Ave	Fairway Drive to Valley Boulevard	66.0	66.2	66.7	67.2	67.7	0.6	0.4
	I-10 Freeway to M Street	67.7	67.8	67.8	68.4	68.4	0.0	0.0
Olive Street	West of Rancho Avenue	60.0	60.1	63.0	60.4	63.2	3.0	2.8
	East of Rancho Avenue	57.6	57.8	61.3	58.5	61.6	3.5	3.2
Pepper Ave	SR-210 Freeway to Baseline Road	58.9	61.0	63.7	69.6	70.1	2.7	0.5
	Baseline Road to Etiwanda Avenue	65.1	65.8	67.9	68.5	69.8	2.2	1.3
	Etiwanda Avenue to Foothill Boulevard	65.9	66.4	68.5	68.7	70.0	2.1	1.3
	Foothill Boulevard to Rialto Avenue	68.4	68.6	70.4	69.6	71.1	1.8	1.5
	Rialto Avenue to Merrill Avenue	69.2	69.3	71.1	69.6	71.4	1.8	1.7
	Merrill Avenue to Randall Avenue	68.1	68.2	70.9	68.5	68.5	2.8	0.0

Table 4.12-9 Project Related Traffic Noise Increases (dBA CNEL) (Continued)

Roadway[1]	Segment	Existing	Opening Year (2016)		2035		Project Increase Year 2016	Project Increase Year 2035
			No Project	With Project	No Project	With Project		
Pepper Ave	Randall Avenue to San Bernardino Avenue	68.9	68.9	71.5	69.3	71.7	2.6	2.4
	San Bernardino Avenue to Violet Street	69.2	69.3	72.0	69.8	72.3	2.7	2.5
	Violet Street to Hospital Entrance	69.2	69.3	72.1	69.7	72.3	2.8	2.6
	Hospital Entrance to Valley Boulevard	69.6	69.7	72.1	69.7	72.3	2.4	2.6
	Valley Boulevard to I-10 Freeway	68.8	68.9	72.6	69.5	72.8	3.7	3.3
	South of I-10 Freeway	68.0	68.0	68.0	68.4	68.4	0.0	0.0
Rancho Ave	North of Olive Street	67.3	67.4	67.7	68.0	68.3	0.3	0.2
	Olive Street to C Street	67.4	67.5	67.6	68.2	68.2	0.0	0.0
	North of Valley Boulevard	67.6	67.7	67.8	68.4	68.5	0.1	0.1
	I-10 Freeway to 3rd Street	68.4	68.5	69.1	69.4	69.8	0.5	0.4
	3rd Street to Agua Mansa Road	67.1	67.3	67.9	68.3	68.8	0.7	0.5
	Agua Mansa Road to La Cadena Drive	65.5	65.9	66.6	67.7	68.1	0.7	0.4
Rialto Ave	West of Cedar Avenue	62.3	62.3	62.5	62.7	62.9	0.2	0.2
	Cedar Avenue to Cactus Avenue	61.2	61.2	61.5	61.6	61.8	0.3	0.3
	Cactus Avenue to Riverside Avenue	60.0	60.2	60.5	61.3	61.5	0.3	0.3
	Riverside Avenue to Acacia Avenue	58.4	58.7	58.9	60.1	60.2	0.2	0.1
	Acacia Avenue to Pepper Avenue	61.3	61.6	62.2	63.0	63.5	0.6	0.4
	East of Pepper Avenue	63.1	63.2	63.4	63.5	63.7	0.2	0.2
Riverside Ave	North of Baseline Road	68.8	68.9	68.9	69.3	69.3	0.0	0.0
	Baseline Road to Etiwanda Avenue	66.1	66.1	66.1	66.5	66.5	0.0	0.0
	Etiwanda Avenue to Foothill Boulevard	66.1	66.2	66.2	66.5	66.6	0.0	0.1
	Foothill Boulevard to Rialto Avenue	65.6	65.9	66.1	67.3	67.5	0.2	0.1
	Rialto Avenue to Merrill Avenue	66.0	66.3	66.6	67.7	67.9	0.3	0.2
	Merill Avenue to Randall Avenue	66.9	67.1	68.3	68.3	68.6	1.2	0.3
	Randall Avenue to San Bernardino Avenue	67.6	67.8	68.3	69.1	69.3	0.5	0.3
	San Bernardino Avenue to Value Center	68.7	68.9	69.3	70.1	70.4	0.4	0.3
	Value Center to Valley Boulevard	68.5	69.6	70.0	71.1	71.1	0.5	0.0
	Valley Boulevard to I-10 Freeway	70.1	70.4	71.3	71.7	72.4	0.9	0.7

Table 4.12-9 Project Related Traffic Noise Increases (dBA CNEL) (Continued)

Roadway[1]	Segment	Existing	Opening Year (2016)		2035		Project Increase Year 2016	Project Increase Year 2035
			No Project	With Project	No Project	With Project		
Riverside Ave	I-10 Freeway to Slover Avenue	69.3	69.6	70.0	71.1	71.1	0.5	0.0
	Slover Avenue to Jurupa Avenue	69.4	69.8	70.3	71.7	72.0	0.6	0.4
	Jurupa Avenue to Agua Mansa Road	69.5	69.9	70.5	71.9	72.3	0.5	0.3
	Agua Mansa Road to Placentia Lane	66.2	67.0	67.8	70.1	70.5	0.8	0.4
San Bernardino Ave	West of Cedar Avenue	61.2	61.2	62.4	61.6	62.6	1.1	1.0
	Cedar Avenue to Cactus Avenue	56.7	61.2	62.4	61.6	62.6	1.1	1.0
	Cactus Avenue to Riverside Avenue	61.4	61.6	63.4	62.8	64.2	1.8	1.4
	Riverside Avenue to Wildrose Avenue	63.4	63.6	64.7	64.6	65.5	1.1	0.9
	Wildrose Avenue to Indigo Avenue	62.4	62.5	64.4	63.2	64.4	1.9	1.2
	Indigo Avenue to N Eucalyptus Avenue	62.4	62.6	63.9	63.1	64.8	1.3	1.7
	N Eucalyptus Avenue to Pepper Avenue	62.6	62.7	64.7	62.6	65.5	2.1	2.9
	Pepper Avenue to Meridian Avenue	61.7	61.9	64.5	63.3	65.5	2.6	2.2
Slover Ave	West of Cedar Avenue	63.1	63.9	64.0	67.3	67.3	0.1	0.1
	East of Cedar Avenue	62.1	63.9	63.9	68.8	68.8	0.0	0.0
Valley Blvd	West of Cedar Avenue	69.1	69.1	69.4	69.5	69.8	0.3	0.3
	Cedar Avenue to Cactus Avenue	67.1	67.1	68.0	67.5	68.3	0.8	0.8
	Cactus Avenue to Riverside Avenue	67.7	67.9	68.7	68.7	69.4	0.8	0.7
	Riverside Avenue to Wildrose Avenue	66.3	66.4	69.8	67.0	70.1	3.4	3.1
	Wildrose Avenue to Eucalyptus Avenue	65.1	65.3	69.6	66.2	69.9	4.3	3.8
	Eucalyptus Avenue to Pepper Avenue	67.9	68.0	71.4	68.4	71.6	3.4	3.2
	Pepper Avenue to Meridian Avenue	68.3	68.4	71.4	68.7	71.6	3.0	2.8
	Meridian Avenue to Hermosa Avenue	65.1	65.2	67.4	65.8	67.8	2.2	2.0
	Hermosa Avenue to Rancho Avenue	66.2	66.3	68.1	66.8	68.5	1.8	1.6
	Rancho Avenue to La Cadena Drive	65.3	65.4	66.6	65.7	66.9	1.2	1.1
	La Cadena Drive to Mount Vernon Avenue	66.3	66.4	67.4	66.8	67.5	1.0	0.7
	North of Valley Boulevard	52.9	53.0	57.8	53.6	58.1	4.9	4.4
Wildrose Ave								

Source: Kunzman Associates Noise Assessment, Table 9 (Appendix H.2).

Notes: [1] Noise levels shown are at a distance of 100 feet from roadway centerline.

Although there are existing residential dwelling units along the north side of Olive Street, the lot lines are set back from the road rights-of-way by approximately 15 feet and there are six-foot high masonry walls shielding the backyards from much of the traffic noise. Therefore, this impact would be less than significant.

Pepper Avenue, Valley Blvd and the I-10 Freeway

Implementation of the CHCCSP will result in traffic noise increases of up to 3.7 CNEL over Year 2016 noise levels without the proposed project; and up to 3.3 CNEL over Year 2035 noise levels without new projects in the CHCCSP project area at land uses adjacent to Pepper Avenue near Valley Boulevard. Based on modeling results, noise levels associated with vehicle traffic on Pepper Street at Year 2035 in this area are expected to reach up to 72.8 CNEL. This area is also heavily influenced by vehicle traffic traveling on Valley Blvd and the I-10 Freeway. There are however, no sensitive receptors in this area. Therefore, this impact would be less than significant.

Valley Blvd, Riverside Avenue to Meridian Avenue

Implementation of the CHCCSP will result in traffic noise increases of up to 3.5 CNEL over Year 2016 noise levels without the proposed project and up to 3.2 CNEL over Year 2035 noise levels without the project at land uses adjacent to Valley Boulevard between Riverside Avenue and Meridian Avenue. Based on the modeling results, noise levels at Year 2035 are expected to range between 70 and 72 CNEL along this segment of Valley Boulevard. There are no sensitive land uses located along this segment of Valley Boulevard. Further, measured ambient noise levels presented in Table 4.12-3 show that existing noise levels along this segment of Valley Boulevard currently range between 73.9 and 80.2 dBA L_{eq}. Therefore, the increase in vehicle noise along this segment of Valley Blvd due to the proposed project would not be significant.

Wildrose Avenue, north of Valley Boulevard

Build out of the future projects in the CHCCSP planning area would result in increases in the ambient noise level of up to 4.9 CNEL over Year 2016 conditions without the project and up to 4.4 CNEL over Year 2035 conditions without the project. However, future noise levels along Wildrose Avenue are not expected to exceed 58 CNEL even with implementation of the project. This is because the CHCCSP calls for Wildrose Avenue to be cul-de-saced in Planning Area 2, south of San Bernardino Avenue, so in the future, Wildrose will not be a through street between Valley Blvd and and Bernardino Avenue. In addition, north of planning areas 5 and 9 along Wildrose Avenue are identified as Residential, Open Space/Park, and Open Space Habitat. Therefore, increases in the ambient noise level due to new projects in the CHCCSP project area would be less than significant.

Operational Noise Impacts Associated with Proposed Land Uses

In addition to roadway traffic noise impacts, on-site activities associated with proposed land uses in the CHCCSP project area have the potential to impact both on-site and off-site sensitive receptors. Specifically, the activities associated with Retail, Retail Mixed Use, Office Mixed Use, and Business Park establishments such as large parking lot noise, air conditioning units, delivery trucks, loading and unloading.

Traffic associated with parking lots is not usually of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by car door slamming, engine start-up, alarm activation and car pass-bys can exceed the noise standard. Tire squeal may also be a problem depending on the type of parking surface. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 4.12-10, *Maximum Noise Levels Generated by Parking Lots (50 feet)*. These noise levels, which are based on measurements conducted by Mestre Greve Associates, are representative of the noise level at a distance of 50 feet from the source, and are the maximum noise level generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles. Due to the unavailability of detailed plans, the exact locations of all parking lots within the boundaries of each property are not yet known. For the purposes of determining worst-case noise impacts to residences due to parking lot related activities, it will be assumed that a parking lot could be located anywhere within the confines of the property containing the parking lot.

Table 4.12-10 Maximum Noise Levels Generated by Parking Lots (50 feet)

Event	dBA L_{max}
Door Slam	60 to 70
Car Alarm Activation	65 to 70
Engine Start Up	60 to 70
Car pass-by	55 to 70

Source, Mestre Greve Associates, 2008, (EIR Appendix H.1)

Truck deliveries, loading dock activities and air conditioning noise are difficult to assess at this stage of the project. Loading dock noise includes the movement of the goods into the store and possibly forklift operations. Truck delivery noise is generated when a truck drives to or from the loading dock. Formerly, delivery truck drivers could also leave the truck idling during unloading operations. However, trucks are now prohibited from idling for more than 5 minutes per the SCAQMD regulations. The number of truck deliveries and the time of day that unloading would occur is not known. Nighttime operations can be particularly annoying to residences. However, noise levels could be loud enough that they would be disturbing to the residences.

Mechanical equipment noise associated with the HVAC is often present with several of the land use types being proposed as part of the project. HVAC equipment is sometimes located on the ground and sometimes located on the roof of the buildings. The type, size and number of mechanical equipment are not known at this time. If the equipment is located on the roof, often parapet walls are used to control the noise from the equipment. Similarly, sound walls can be located around HVAC equipment that is located on the ground.

These types of noise sources can be expected to occur within areas that are designated as Retail, Retail Mixed Use, Office Mixed Use, and Business Park. A discussion of each planning area where these types of uses may be developed and the associated potential for each area to impact sensitive receptors are discussed here.

Retail

Planning Area 16 – Although this planning area is situated just west of the existing ARMC, retail related noise would not impact this facility due to the hospital's setback from the intervening Pepper Avenue. Vehicle noise on Pepper Avenue would also mask any retail related noise that occurs on Planning Area 16. Retail activities may however, impact residential uses that would be allowed in Planning Area 15 and Open Space/Habitat in Planning Area 18. Depending on the actual uses that are developed in the northwestern corner of Planning Area 16, a detailed noise and vibration study should be conducted to evaluate potential retail noise and vibration impacts to residential land uses that may be developed in Planning Areas 15 and 18. Mitigation could include barrier walls along the northern boundary of Planning Area 16 and/or setbacks in Planning Area 16 or Planning Area 15. Implementation of mitigation measures N-4 and N-5 would reduce this impact to less than significant levels.

Planning Areas 20 and 22 – There are no existing or proposed sensitive land uses located in the vicinity of these planning areas. Although there is an existing Open Space/Habitat site located on the north side of Valley Blvd, associated with the improvements to the Pepper Avenue/Valley Blvd intersection (2 acres) and the development of the ARMC (6.8 acres). The habitat area is located on the north side of Valley Blvd, a major arterial through the San Bernardino Valley. In addition, both planning areas are located on the south side of Valley Blvd and there is already some development. Therefore, additional development in these planning areas would not likely increase ambient noise at this major intersection that would result in a significant impact.

Retail Mixed Use

Planning Area 9 – This planning area is situated south of proposed residential land uses. Depending on the actual uses that are developed along the northern boundary of Planning Area 9, a detailed noise study should be conducted to evaluate potential retail noise impacts that

may occur with development in Planning Area 9 to adjacent Residential, Park and Open Space planning areas. Mitigation may include barrier walls along the northern boundary of Planning Area 9 and/or setbacks on Planning Area 9 or Planning Areas 4, 7 and 8 (Residential). There are no existing land uses that would be impacted by operational noise that may occur on Planning Area 9. Future noise studies would set forth site specific requirements to mitigate noise impacts on adjacent land uses. Therefore, mitigation measures, requiring site specific noise studies to be prepared, would ensure that impacts to adjacent planning areas would be less than significant.

Planning Area 24 – There are existing land uses located within this planning area that may be affected by operational noise associated with land uses that would be allowed in Planning Area 24 including single family residences located at the southwest corner of Hermosa Avenue and C Street, single-family residences located on the east side of Hermosa Avenue and Slover Mountain High School located west of Hermosa Avenue. Depending on the actual uses that are developed near these existing uses, a detailed noise study should be conducted to evaluate potential operational noise impacts. In addition, this planning area is located in close proximity to a habitat conservation area that is part of the DSF HCP (see Section 4.4, *Biological Resources*). This area is in the Hermosa Gardens Cemetery, immediately north of C Street. Mitigation may include barrier walls and/or setbacks. Implementation of recommendations contained in a site or project specific noise and vibration study as outlined in mitigation measure N-4 and N-5 would ensure that noise impacts associated with future development projects in Planning Area 24 on existing land uses, including habitat associated with the cemetery would be less than significant.

Office Mixed Use

Planning Area 19 – Land uses that may be allowed in this planning area have the potential for impacts to single-family residential units located north of San Bernardino Avenue, and to the endangered or other sensitive species that may occupy the Open Space/Habitat conservation area in Planning Area 18. Vehicle noise travelling on San Bernardino Avenue will likely mask most noise that would be generated in this planning area. However, depending on the actual uses that may be proposed near these existing uses, a detailed noise and vibration study would be required to be conducted to evaluate potential operational noise and vibration impacts on existing residential uses and endangered and sensitive species. Mitigation may include barrier walls and/or setbacks from property lines. Implementation of recommendations contained in a site or project specific noise study as outlined in mitigation measures N-4 and N-5, would ensure that noise impacts associated with future development projects in Planning Area 19 on existing land uses, including habitat contained in Planning Area 18 would be less than significant.

Planning Area 21 – Land uses that could be developed in this site have the potential to impact the single-family residences located north of San Bernardino Avenue and the passive recreational areas located on the hospital grounds to the south. Depending on the actual uses that are developed near these existing uses, a detailed noise study should be conducted to evaluate potential operational noise impacts. Implementation of recommendations contained in a site or project specific noise study as outlined in Mitigation Measure N-4, would ensure that noise impacts associated with future development projects in Planning Area 21 on existing land uses would be less than significant.

Planning Area 23 – Although this planning area is situated just west of the existing ARMC site, noise associated with Office Mixed Use projects are not likely to impact the hospital due to the existing noise associated with vehicle traffic in and near the intersection of Pepper Avenue and Valley Blvd, and the Pepper Avenue/I-10 Freeway interchange. Likewise, the Hospital and Pepper Avenue habitat conservation sites located adjacent to Planning Area 23 would likely not be affected. However, because Planning Area 23 is located adjacent to the 8.8 acres of habitat conservation, special consideration should still be paid to the compatibility of land uses between the existing conservation areas and future land uses in Planning Area 23. Therefore, mitigation measures N-4 and N-5 requiring the preparation of a site or project specific Noise and Vibration Study would also apply to any new development in this planning area. Implementation of recommendations contained in a site or project specific noise study would ensure that noise impacts associated with future development projects in Planning Area 23 on the adjacent conservation sites existing would be less than significant.

Business Park

Planning Area 1 - Existing retail land uses within the vicinity of this planning area are already exposed to vehicle traffic noise associated with Valley Blvd and the I-10 Freeway that would mask any activities associated with business park activities that may be developed in this planning area. There are no sensitive land uses adjacent to this planning area either existing or proposed. The planning area is adjacent to the City of Rialto whose Gateway Specific Plan identifies adjacent properties as Freeway Commercial uses.

Planning Area 5 – Planning Area 5 is located adjacent to a portion of the Gateway Specific Plan (City of Rialto) that is designated for Retail Commercial uses. In the CHCCSP project area, Planning Area 5 is adjacent to Planning Area 4, Residential, and Planning Area 9, Retail Mixed Use. Land uses that could be developed in Planning Area 5 have the potential to impact the residential units proposed directly to the north in Planning Area 4, but would be adjacent to non-residential uses on Planning Area 9. Depending on the actual uses that are developed in Planning Area 5, a detailed noise study would be conducted to evaluate potential operational noise impacts on residential uses in Planning Area 4. Mitigation may include barrier walls

and/or setbacks. Implementation of recommendations contained in a site or project specific noise study, as set forth in Mitigation Measure N-4, would ensure that noise impacts associated with future development projects in Planning Area 5 on the adjacent residential planning area would be less than significant.

Planning Areas 10 and 17 – These planning areas are situated in-between Valley Blvd and the I-10 Freeway. Noise levels in this area currently range between 74 to 80 dBA L_{eq}. Noise that may be associated with Business Park uses in this area would not be noticeable over the existing ambient noise levels.

Future Traffic Noise Exposure to the Proposed Project

The project area is located in an established urban area with existing arterial roadways, including Valley Blvd which traverses the project area, and Riverside Avenue, located immediately west of the project area. In addition, the I-10 Freeway is located just south of the project site with interchanges at Pepper Avenue (the gateway to the CHCCSP project area) and Riverside Avenue to the west. As discussed previously, the FHWA Noise Model was utilized to calculate future noise levels associated with vehicle traffic travelling on roads in the project area. The distances from the centerline to the 60, 65, 70 and 75 CNEL contours for each of the acoustically significant roadways within the project area were calculated and are shown on Exhibit 4.12-4, *Future on-site Traffic Noise Contours (CNEL)*. Note that the contours do not include the shielding effects of buildings, topography, or sound barriers that would lower the noise levels from what is shown on this exhibit, and therefore represent a worst-case estimate.

The largest source of traffic noise near the project area is the I-10 Freeway, so all areas that are near the I-10 Freeway have the potential to be significantly impacted. Noise levels along the I-10 Freeway are as high as 80 CNEL. Planning areas 10, 17, 20, 22, 23 and 24 are located in the southern portion of the project area adjacent to the I-10 Freeway. Because of this, these areas will experience higher traffic noise levels than the other planning areas that are further away from the I-10 Freeway. Although no new residential land uses or conservation planning areas are proposed to be located between Valley Blvd and the I-10 Freeway, retail, commercial and office buildings may experience unacceptable interior noise levels. Mitigation Measure N-4 specifically addresses traffic noise impacts on proposed land uses and would apply to all new non-residential development projects or redevelopment of existing developed sites where major renovation of buildings is proposed. Buildings where there would be no occupants, such as utility buildings, would be exempt as would buildings where it can be shown that occupants would not be likely to be affected by exterior noise. In the latter case, the developer would be responsible for demonstrating occupants would not be adversely affected. Mitigation Measure N-4 would also apply to new or remodeled buildings on sites that are adjacent to Valley Blvd. Implementation of site or project specific requirements set forth in each noise assessment

would ensure that impacts associated with traffic noise are reduced to less than significant levels.

Land uses within 115 feet of the centerline of Valley Blvd are expected to experience exterior noise levels that exceed 70 CNEL by the Year 2035, due to the projected increase in traffic along this arterial. These exterior noise levels may result in unacceptable interior noise levels. Mitigation measure N-6 would also apply to new or remodeled buildings on sites that are adjacent to Valley Blvd. Implementation of site or project specific requirements set forth in each noise assessment would ensure that impacts associates with traffic noise are reduced to less than significant levels.

Residential and Habitat Conservation Planning Areas

Year 2035 traffic noise levels along San Bernardino Avenue are expected to exceed 65 CNEL up to 57 feet of the centerline of the road and proposed residential land uses in planning areas 2 and 13, along with Open Space/Habitat planning areas 11 an 18, fall into the 65 – 60 CNEL contours, but are intermittently exposed to higher noise levels as shown in Table 4.12-3. Under existing conditions, noise measurements at locations where these future land uses would occur experienced noise levels as high as 80.2 dBA (Indigo/San Bernardino avenues) and 71.5 dBA (Wildrose/Woodpine avenues). Exhibit 4.12-4, shows future noise contours for 65 CNEL encroaches into a larger portion of these sensitive planning areas due to increases in traffic noise. These contours represent conditions on a flat plane, that is, with no topography considered, or any existing vegetation or structures (buildings or walls) that could reduce noise levels. Therefore, the introduction of noise attenuation measures such as setbacks from property lines and walls around residential areas would be required in order to reduce noise impacts to less than significant levels.

With regard to the Open Space/Habitat areas, the HCP includes a long term commitment to maintaining high quality habitat for the DSF, and by extension, other sensitive species that may inhabit these planning areas. No specific measures to reduce noise levels are called out in the HCP, however, it is the City's intent to site more compatible land uses in proximity to planning areas 3, 6, 11, and 18, and by extension, other habitat identified in the HCP at the Hermosa Gardens Cemetery. Therefore, mitigation measures previously described for construction (N-1 and N-2), operations associated with land uses in adjacent planning areas (N-3 and N-4), and traffic related noise that may adversely affect residential uses (N-5) would reduce potential noise related impacts to less than significant levels.

Pepper Avenue

The future (Year 2035) 70 CNEL traffic noise contour associated with Pepper Avenue is expected to extend up to 117 feet from the roadway centerline. Proposed retail uses in planning areas

16, 21 and 22, within 117 feet of Pepper Avenue may be exposed to unacceptable interior noise levels. Mitigation measure N-4 would be implemented in order to avoid this impact. No residential land uses are proposed in this area.

Meridian Avenue

Traffic noise levels associated with vehicles travelling on Meridian Avenue (planning areas 21, 23 and 24) in the Year 2035 are expected to reach up to 65 CNEL at a distance of 70 feet from the roadway centerline. Proposed Office and Retail Mixed Use land uses would not be significantly impacted and no residential land uses are proposed along this roadway. No mitigation is required.

Street A and Indigo Avenue

Traffic noise levels associated with Street A and Indigo Avenue would not be acoustically significant since these are local roads to access future Residential land uses, and maintenance in planning areas 6 and 11.

Future Train Noise Exposure to the Proposed Project

Similar to the methodology to estimate existing railroad operations noise, the Wyle Noise Model was used to project future railroad operations noise. Future projected train operations for the Union Pacific railroads were obtained from the OnTrac Trade Impact Study. *National Economic Significance of Rail Capacity and Homeland Security on the Alameda Corridor East*, dated September 11, 2003. The projected future year 2025 operational data that is presented in Table 4.12-11, *Future Railroad Operations Modeled*, was utilized in conjunction with the Wyle Noise Model to project future train noise levels on the project site.

Table 4.12-11 Future Railroad Operations Modeled

Train	Number of Cars	Speed (MPH)	Number of Operations		
			Daytime (7:00 AM to 7:00 PM)	Evening (7:00 PM to 10:00 PM)	Nighttime (10:00 PM to 7:00 AM)
Freight	66	23	64	14	59

Source: Mestre Greve Associates, 2008 (EIR Appendix H.1)

The results of the future train noise projections are shown in Table 4.12-12, *Future Railroad Distance to Noise Level Contours*, in terms of the distances to the 60, 65, and 70 CNEL noise contours. These numbers represent the distances from the center of the railroad line to the noise contour value shown. These projections do not include topography or barriers that may reduce the noise levels.

Table 4.12-12 Future Railroad Distance to Noise Level Contours

Train	70 CNEL	65 CNEL	60 CNEL
Freight	594	1127	2145

Source: Mestre Greve Associates, 2008 (EIR Appendix H.1)

Using the future projected number of train operations, the projected future CNEL noise level at the portion of the project area that is closest to the center of the railroad line (e.g. 370 feet) is 73.7 dBA. This noise level is about 3.5 dB higher than the existing estimated train noise level at the same location.

Despite the fact that the noise from train operations will increase in the future, the future noise levels due to train operations will still be significantly lower than the noise level generated by the I-10 Freeway. By comparison, the highest future CNEL noise level at the same portion of the project site due to the traffic traveling on the I-10 Freeway will be about 83.2 dBA. Because of the topography in the project area near the railroad, the same conclusion about railroad noise producing significantly lower noise levels than that due to the I-10 Freeway can be extended to include all portions of the project area. Because the noise level due to the I-10 Freeway is significantly higher than that due to the railroad yard, the noise contribution from railroad operations will not the critical factor in determining future noise impacts at the project site. Railroad operations affect existing land uses in Planning Area 24 including Slover Mountain High School, and a small enclave of single family residences. These land uses are assumed to remain in the future, however, future uses on existing vacant land in this planning area would be Retail Mixed Use and could include a mix of retail, office and related uses. New development in this planning area would be subject to implementation of Mitigation Measure N-4, for all new non-residential uses.

e and f) Airport Noise Levels

The closest airport is Rialto Municipal Airport which is 4 miles north of the CHCCSP project area and is not located within the boundaries of the airport land use plan for this airport. In addition, the Rialto Airport and surrounding area is planned for new development under the Renaissance Specific Plan (2010), and no future aviation uses are proposed.

The next closest public airport is the San Bernardino International Airport (SBIA), which is over 7 miles east of the project area and will have no impact to future businesses and residents of the project area.

The project area is located approximately 13 miles northeast of the Ontario International airport, well outside the airports area of influence and its airport land use plan. Therefore, future development projects in the CHCCSP project area will not be adversely affected by

airport or airstrip uses.

There are no private airstrips located in the vicinity of the CHCCSP project area.

4.12.3.3 Mitigation Measures

Temporary Noise Impacts

The analysis presented above shows that project demolition and construction noise could result in significant impacts to nearby residences, and sensitive species if uncontrolled. The most effective method of controlling construction noise is through limiting construction hours. The County of San Bernardino Noise Ordinance does have restrictions on construction hours. Therefore, the following mitigation measure is proposed and is consistent with the San Bernardino Noise Ordinance.

N-1 Control of Construction Hours – All construction activities should be limited to the hours between 7:00 AM and 7:00 PM Monday through Saturday. Construction and demolition should be prohibited on Sundays or national holidays.

N-2 In addition to implementation of Mitigation Measure N-1, the following mitigation measures should be implemented whenever construction activities occur within 1,500 feet of the hotel and residential land uses located between Valley Blvd and the I-10 Freeway; the Colton Golf Club (if in operation); the residential properties, the church and the Rialto City Park all located along San Bernardino Avenue; the Rialto Retirement Home, Vista Cove Care Center and the Cathedral of Praise Church all located near Riverside Drive; the San Bernardino Social Services Building; the Arrowhead Regional Medical Center; the Hermosa Gardens Cemetery; Slover Mountain High School; the residential land uses located along Hermosa Avenue, and adjacent to planning areas set aside for permanent habitat (planning areas 3, 6, 11 and 18) as well as the habitat set aside as part of the HCP within the Cemetery property.

a) All construction contractors shall limit haul truck deliveries to the same hours specified for construction equipment (7:00 AM and 7:00 PM Monday through Saturday).
b) To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings and should avoid using alleyways adjacent to said uses.
c) All construction contractors shall use power construction equipment with state-of-the-art noise shielding and muffling devices.
d) During all project site excavation and grading on any site in the CHCCSP project area, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

e) All construction contractors shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest a project site during all project construction.
f) All construction contractors shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest a project site.

N-3 The use of vibratory equipment shall be avoided within 70 feet of existing vibration-sensitive land uses (residential, habitat, ARMC).

Operational Noise Impacts

Project Generated Traffic Noise Impacts

No significant impacts related to the increase in ambient noise levels due to project traffic were identified. No mitigation is necessary.

Operational Impacts Associated with Proposed Land Uses

N-4 If vibratory equipment must be used within 26 feet of an existing structure vibration monitoring shall be conducted and work shall be halted and re-evaluated if vibratory levels near 0.20 PPV which is the standard established to protect structures.

N-5 Prior to issuance of building permits for non-residential land uses within planning areas 5, 9, 16, 21, 22, 23 and 24, all project proponents shall prepare a detailed noise study that shall ensure that these sources do not exceed 55 dBA (Leq) and 75 dBA (Lmax) during the daytime (7:00 AM to 10:00 PM), and 45 dBA (Leq) and 65 dBA (Lmax) during the nighttime (10:00 PM to 7:00 AM). The assessment shall be prepared by a qualified acoustical engineer and shall document the noise generation characteristics of the proposed equipment and the projected noise levels at the nearest use. Compliance with these levels shall be demonstrated and any measures required to comply with the Noise Ordinance will be included in the project plans. The report shall be completed and approved by the City prior to issuance of building permits.

Traffic Noise Impacts to Proposed Land Uses

N-6 New non-residential development shall be constructed with roof-ceiling assemblies that make up the building envelope to have an STC of at least 50 and exterior windows must have minimum STC of 30 where sound levels at the property line regularly exceed 65 decibels. This measure shall apply to new non-residential land uses proposed along Valley Boulevard and Pepper Avenue. This measure would reduce interior noise levels to acceptable levels and mitigate any impact to less than significant. Buildings with few

or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings are exempt from this measure.

N-7 Prior to issuance of building permits for residences in residential planning areas located along San Bernardino Avenue and Wildrose Avenue (planning areas 2, 4, 7, and 13) shall prepare detailed noise assessments showing that noise levels in those areas will not exceed the 65 CNEL outdoor noise criteria and the 45 CNEL indoor noise standard. The noise assessment shall be prepared by a qualified acoustical consultant and shall document the sources of noise impacting the areas and describe any measures required to meet the standard. These measures will be incorporated into the project plans. The report shall be completed and approved by the City prior to issuance of building permits.

4.12.3.4 Level of Significance After Mitigation

With implementation of mitigation measures N-1 through N-7 during construction and long-term operation, impacts associated with noise and vibration during construction, operation and future traffic levels would be less than significant.



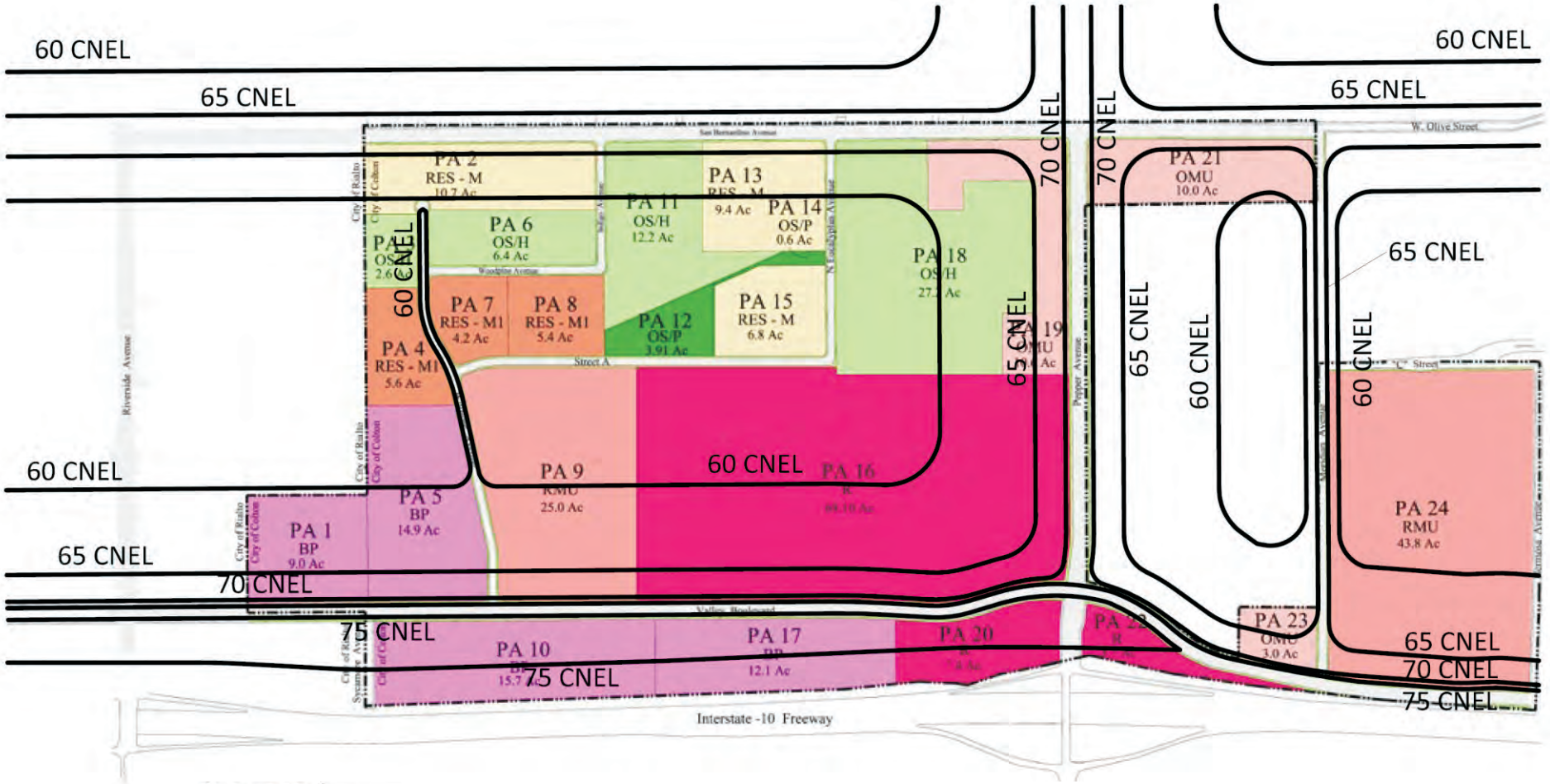
Source: Kunzman Associates, 2013

Not to Scale

The Altum Group

Noise Measurement Sites
CHCCSP Environmental Impact Report

Exhibit
4.12-1



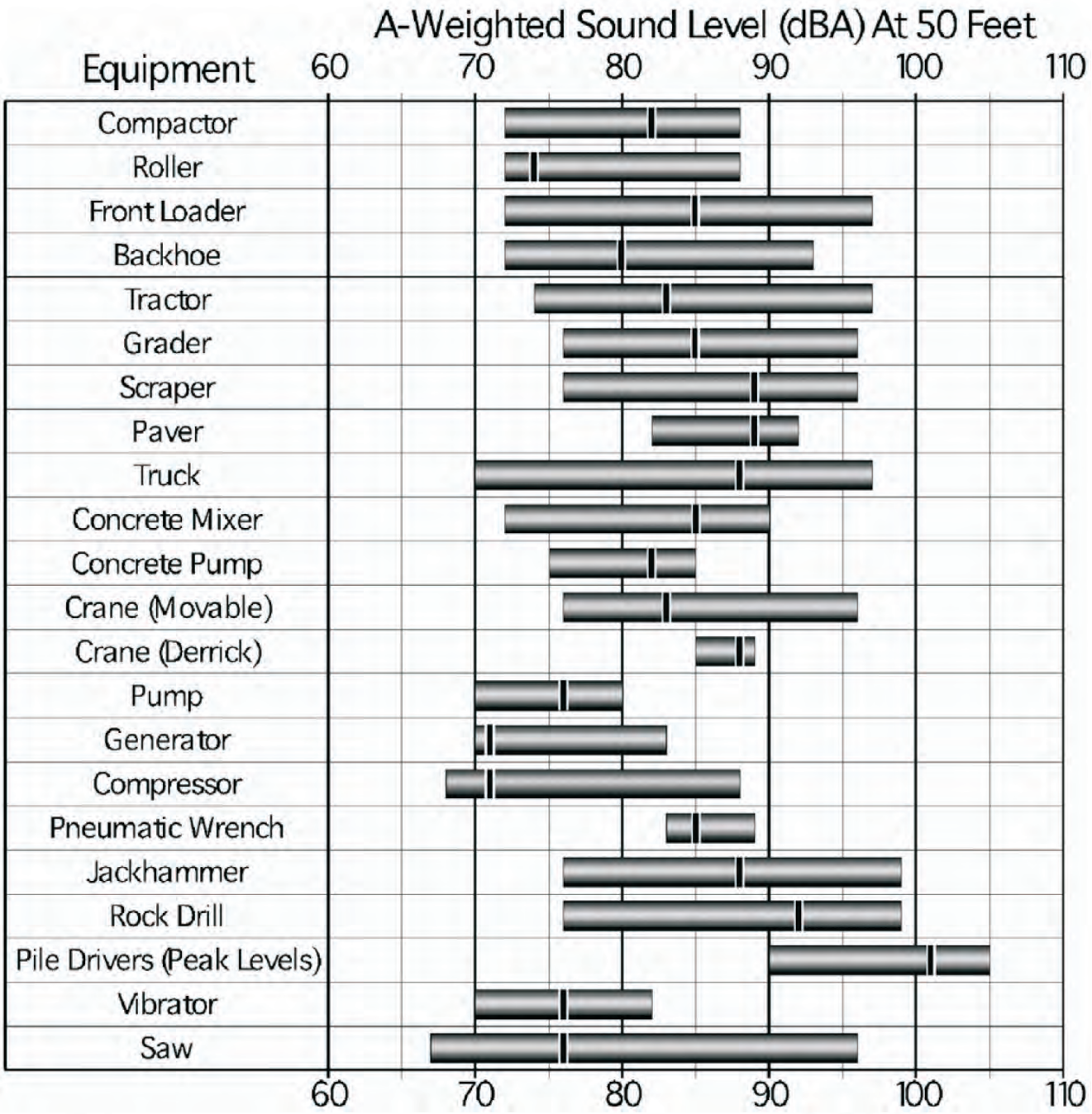
Source: Kunzman Associates, 2013

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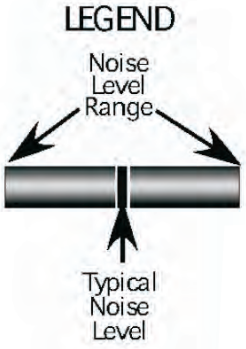
The Altum Group

Existing On-Site Traffic Noise Contours (CNEL)
CHCCSP Environmental Impact Report

Exhibit 4.12-2



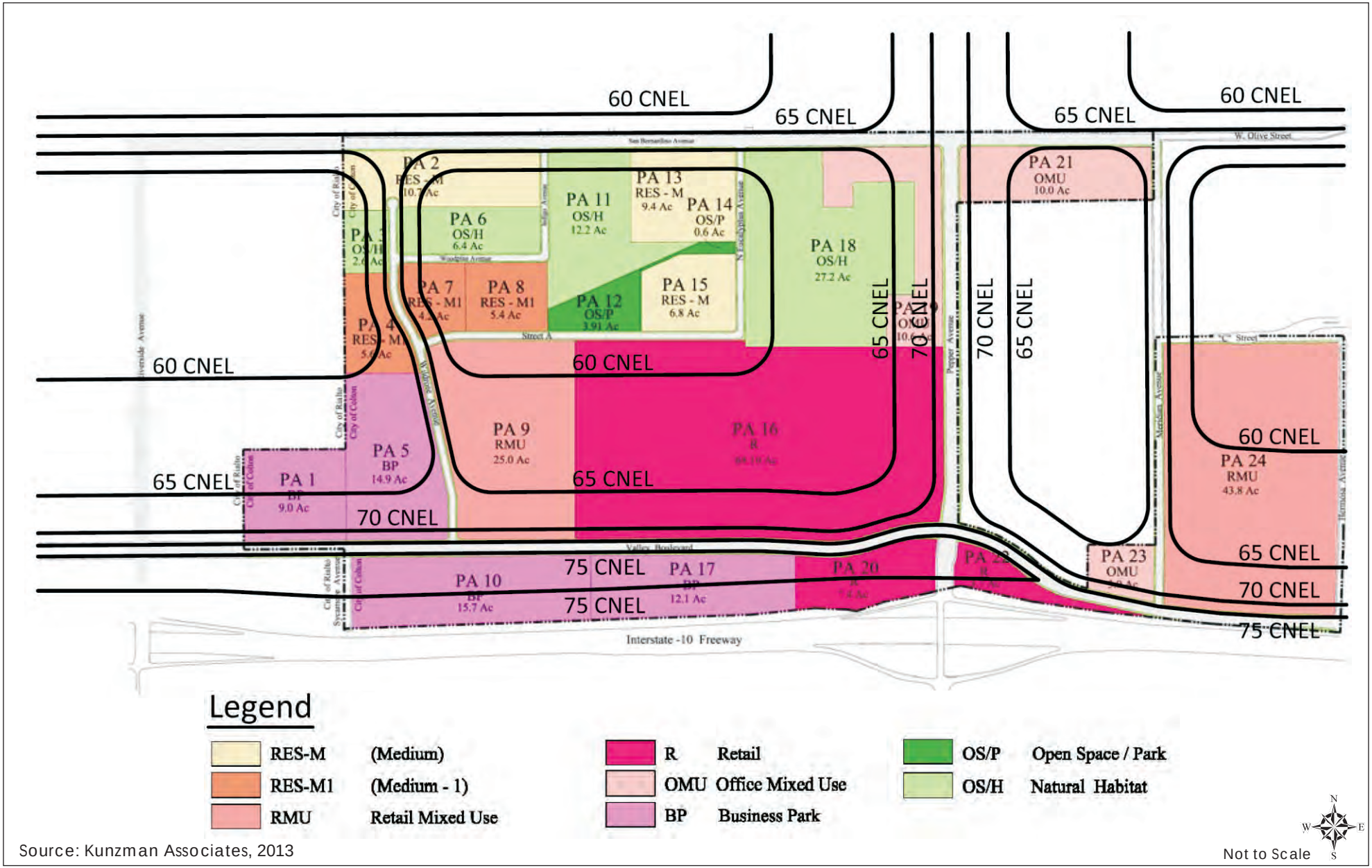
Sources: "Handbook of Noise Control," by Cyril Harris, 1979
"Transit Noise and Vibration Impact Assessment" by Federal Transit Administration, 1995



The Altum Group

Construction Equipment Noise Levels
CHCCSP Environmental Impact Report

Exhibit 4.12-3



Legend

RES-M	(Medium)	R	Retail	OS/P	Open Space / Park
RES-M1	(Medium - 1)	OMU	Office Mixed Use	OS/H	Natural Habitat
RMU	Retail Mixed Use	BP	Business Park		

Source: Kunzman Associates, 2013

Not to Scale

The Altum Group

Future On-Site Traffic Noise Contours (CNEL)
CHCCSP Environmental Impact Report

Exhibit 4.12-4

4.13.1 Introduction

This section describes the existing setting regarding population and housing and the potential effects associated with implementation of the proposed Colton Hub City Centre Specific Plan in the project area and vicinity. Descriptions and analysis in this section are based on population and housing information provided by the California Department of Finance (DOF), Southern California Association of Governments (SCAG), and the City of Colton.

4.13.2 Environmental Setting

4.13.2.1 Existing Land Uses

The project area's existing land uses are described in detail in Section 3, *Project Description* and in Section 4.8, *Land Use and Planning*. Approximately 60 percent of the project area is vacant land or open space associated with the golf course, George Brown Park, or habitat conservation. Exhibit 3-4 in Chapter 3, *Project Description*, shows the existing land uses in the project area by parcel.

4.13.2.2 Existing Population, Housing, and Employment

Population

Population in Colton has grown consistently since 1900. However, the City experienced a rapid increase in population growth beginning in 1980. Between 1980 and 1990, the population more than doubled, and between 1990 and 2000, the population increased by 19 percent. The 2010 U.S. Census reported the population of Colton at 52,126. According to State Department of Finance estimates, the City of Colton has an estimated population of 52,956 as of January 1, 2013. This DOF figure represents a 9.5 percent increase compared to the 2003 population of 50,316. SCAG's 2012-2035 Regional Transportation Plan (RTP) forecasts Colton's population to increase to 60,700 and 71,700 in 2020 and 2035, respectively. Table 4.13-1, *Colton Population Growth (2003 – 2013)* illustrates Colton's population growth for the last ten years.

Table 4.13-1: Colton Population Growth (2003-2013)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Number of Residents	50,316	50,908	51,522	51,573	51,594	51,703	51,774	52,154	52,319	52,690	52,956

Source: California Department of Finance E-5, 2013

Housing

The recently adopted 5th Cycle Housing Element of the General Plan states that the 2010 census data shows the City of Colton with an estimated 16,350 dwelling units. Also, according to the US Census data, Colton has a much higher ratio of renters to owners as compared to San Bernardino County as a whole and the highest percentage of multi-family units among the cities surrounding Colton. Colton residents also have among the lowest median family incomes ($41,788) compared to San Bernardino County as a whole ($55,853) and well below the federal median family income standard of $64,500. Rents in Colton are also some of the lowest reflecting land values and the ability of households generally to afford only lower cost housing.

SCAG's Regional Housing Needs Assessment (RHNA) sets forth what SCAG believes is the City's "fair share" of the regional housing need during the period that the City's Housing Element is in effect (2013 – 2021). The RHNA is based on population and housing needs projections made by the State and assigned to regional councils such as SCAG. SCAG then allocates the housing absorption to its member jurisdictions such as the City of Colton. For the current Housing Element, SCAG has projected 443 units for very-low-income households 1,302 units for low-income households, 347 units for moderate-income households, and 831 units for above-moderate-income households.

The City of Colton continues to be one of the most affordable cities in San Bernardino County, with among the lowest housing costs in the County, low homeownership rates, and an aging housing stock. As such, the City supports efforts to improve housing conditions for current Colton residents, create safer neighborhoods in which residents feel comfortable investing, and provide move-up housing opportunities that can diversify household income demographics in the City. Even so, the City is required by State law to show that there are residential sites available in the City with densities high enough to facilitate housing for all income levels. Table 4.13-2, *Comparison of Vacant Sites Inventory and RHNA Requirements*, shows that there are available sites around the City where additional housing units can be developed to meet the City's the RHNA allocation for all income levels during the 2013-2021 planning period.

Employment

According to SCAG's adopted 2012-2035 Regional Transportation Plan (RTP), Colton had an estimated employment base of 24,000 in 2008. In an earlier RTP, SCAG estimated Colton's employment base had increased to 28,502 by 2010. The 2012-2035 RTP forecasts Colton's employment base to increase to 25,500 and 29,600 in 2020 and 2035, respectively.

Table 4.13-2: Comparison of Vacant Sites Inventory and RHNA Requirements

	Lower	Moderate	Above Moderate
Approved Projects			
Vacant Sites	1,082	658	1,736
Underutilized Sites			
Total Capacity			
RHNA (2013-2021)	745	347	831
Adequate Sites?	**Yes**	**Yes**	**Yes**

Source: City of Colton General Plan Housing Element, 2014.

The State of California Employment development Department's data for November 2013, released in December 2013 provided the information summarized in Table 4.13-3, *Colton Employment Characteristics*.

Table 4.13-3: Colton Employment Characteristics (2013)

Category	Estimate
Labor Force	24,700
Employed persons	22,200
Unemployed persons	2,400
Unemployment rate (percent)	9.9%

Source: California Economic Development Department (2013)

Household Characteristic

The DOF estimated in 2013 that there were a total of 52,956 residents in Colton with an average household size of 3.51 persons and a steady but slow rate of increase as indicated in Table 4.13-4, *Colton Population and Household Characteristics (2013)*.

Table 4.13-4: Colton Population and Housing Characteristics (2013)

Population	Dwelling Units	Average Household Size (Persons per Household)
52,956	16,350	3.51

Source: California Department of Finance, Population & Housing Estimates, January 1, 2013

4.13.3 Environmental Impacts and Mitigation Measures

4.13.3.1 Thresholds of Significance

Thresholds of significance are drawn from the California Environmental Quality Act (CEQA) Guidelines Appendix G Checklist. The proposed project would be considered to have significant population and housing impacts if it results in any of the following:

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 number of existing housing, necessitating the construction of replacement housing elsewhere; or
c) Displace substantial number of people, necessitating the construction of replacement housing elsewhere.

There is no standard methodology set forth in CEQA to assess the population and housing impacts of a proposed project. However, CEQA Section 15064(e) does offer guidance for the assessment of socio-economic impacts:

> *Economic and social changes resulting from a project shall not be treated as significant effects on the environment. Economic or social changes may be used, however, to determine that a physical change shall be regarded as a significant effect on the environment. Where a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project. Alternatively, economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment. If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant. For example, if a project would cause overcrowding of a public facility and the overcrowding causes an adverse effect on people, the overcrowding would be regarded as a significant effect.*

Impacts on population and housing were assessed by reviewing existing and anticipated population and housing figures provided by the DOF, SCAG and the City of Colton Housing Element. The proposed project's impacts were evaluated by determining their consistency with these estimates and projects.

4.13.3.2 Impact Analysis

a) Population Growth

There are two types of population growth: Direct and Indirect. Direct population growth occurs from the development of new residential units. Indirect population growth occurs from the creation of new employment opportunities or the removal of a barrier to growth (e.g., the extension of urban infrastructure to an undeveloped area). The proposed project has the potential to induce direct and indirect growth. The CHCCSP project area will have a total of 42.1 acres in residential planning areas and include 275 dwelling units; approximately 223.3 acres of commercial retail, office and light industrial uses. Using the City of Colton's 2013 average household size of 3.51, the proposed CHCCSP would add an estimated 965 new residents to the City's population through the development of new dwelling units. This represents 1.8 percent of the projected population in the City of Colton in 2020.

The proposed CHCCSP project would provide a variety of housing opportunities as well as new jobs to a city struggling with the problem of keeping pace with SCAG's RHNA allocation for the city and actively seeking new business that would provide jobs for local residents even as the city is losing jobs (i.e. the closing of Moss Brothers Ford, and the relocation of Stater Bros headquarters and warehousing facilities to neighboring San Bernardino).

Employment generated by the CHCCSP would include full and part time jobs in several sectors including commercial retail, warehousing and light industrial, professional and medical office, and public sector (school, police and fire stations) jobs within the project area.

In addition to the changes in the marketplace over the last 17 years since the adoption of the West Valley Specific Plan, there has also been a major shift on a national basis toward "Smart Growth" communities. These communities provide a diversity of uses in a compact setting and locate shopping, restaurants and employment uses accessible to where people live. In these "walkable" communities reliance on the automobile is less, thereby reducing traffic and the associated air pollutants and noise, and at the same time, promoting greater neighborhood/social interaction. With the increases in gasoline prices in the recent past, and the general preference to spend less time in the car, the desire for Smart Growth communities will continue to have great appeal over the long term. By reducing commuting costs and allowing more people to spend time with their families and in their community, the overall quality of life improves.

b and c) Displace Existing Housing or Population

The CHCCSP project area includes a limited number of existing dwelling units in a small neighborhood along Hermosa Avenue and "C" street, which will be "grandfathered." There are no plans to remove these houses, although the planning area where the houses are located is

designated for Business Park uses. There are less than 20 properties that would be affected; therefore, this impact would not be substantial.

4.13.3.3 Mitigation Measures

Based on the past lag the City of Colton has experienced in meeting RHNA numbers (largely due to restrictions on development caused by the DSF as well as current challenges in maintaining/expanding the City's job base, future development projects in the CHCCSP project area are expected to provide a good balance of jobs and housing to meet local and regional goals. Therefore, impacts on population growth would be less than significant.

No mitigation is required with regard to displaced housing as residents would be provided with assistance to move at such time as this area is ripe for development.

4.13.3.4 Level of Significance After Mitigation

Not applicable.

4.14.1 Introduction

This section describes the public services provided by the City of Colton or other service providers and the potential effects on these services from implementation of the CHCCSP that would result in new development in the project area. Information contained in this section was gathered from responses to information requests from various public service departments. Additional information was obtained from the City of Colton General Plan Update (August 2013).

4.14.2 Environmental Setting

4.14.2.1 Fire Protection and Emergency Medical Services

The Colton Fire Department's service area includes the entire incorporated City of Colton and small-unincorporated areas adjacent to the City. The Fire Department's territory is approximately 19 square miles and is currently divided into four service areas. Emergency medical service is provided by the Emergency Medical Services (EMS) division, and American Medical Response (AMR) provides ambulance service to the City of Colton.

Stations and Facilities

Fire Station 212, located at 1511 North Rancho Avenue is responsible for initial response in the project area, but all stations can respond. Table 4.14-1, *Fire Station Summary*, summarizes the CFD's Station locations, equipment, and staffing. Additionally, locations of fire stations are shown in Exhibit 4.14-1, *Location of Public Services Providers*. The Fire Department has specialized units which are headquartered at different stations. These units consist of an Arson Investigation Unit, a Heavy Rescue Unit and a SWAT Medics team which coordinates with the police department.

Apparatus

The Fire Department has equipment to handle any urban fire protection needs with low-rise buildings and semi rural landscapes. All emergency vehicles are equipped with medical support equipment to assist in life saving and support.

Staffing

The Fire Department maintains a daily staffing of 13 personnel, 24 hours per day. Each fire station has one Captain, one Engineer, and one Firefighter Paramedic. There is also a shift Battalion Chief on-duty 24 hours per day at Station 211. Each piece of equipment is paramedic qualified and is considered to be dual functioning; fire and emergency medical services (EMS).

Table 4.14-1: Fire Station Summary

Station No.	Address	Distance from Project Area	Apparatus	Staffing
211	303 East E St Administrative Headquarters	1.4 miles	1 Paramedic Truck	3 firefighters
212	1511 N. Rancho Ave Arson Investigation Unit Headquarters	1 mile	1 Paramedic Engine	3 firefighters
213	1100 S. La Cadena Ave Heavy Rescue Unit Headquarters	1.75 miles	1 paramedic engine 1 rescue vehicle	3 firefighters
214	1511 S. Meadow Lane	2.9 mile	1 paramedic engine 1 brush engine	3 firefighters

Source: Colton General Plan Update EIR, 2013 and Colton Fire Department Website, 2013.

Response Times and Protocols

The Fire Department responds to over 5,000 calls per year from four stations throughout the community. The primary station that serves the project area is Station 212 on Rancho Avenue. The average response time for all calls that Station 212 responded to was six minutes and 31 seconds. The predicted response time to the project area is between six and eight minutes. The target response time for the Fire Department is six minutes. Currently, the western half of the project area is outside of the predicted six minute response area.

Mutual Aid

The Fire Department has a strong mutual aid relationship with members of the Confire Joint Powers Authority (JPA). Participants include the County of San Bernardino and the cities of Rialto, Loma Linda, Redlands and Colton. The JPA shares a common dispatch center and operates as a unit by responding with the closest resources to a call, regardless of jurisdiction. Therefore, mutual aid is a guiding philosophy and a daily mode of operation.

4.14.2.2 Police Protection

The Colton Police Department provides police protection within the Colton City limits and it's Sphere of Influence (SOI). The Police Department became an independent, City-sponsored entity on July 11, 1887.

Police Facilities

The Colton Police Department provides law enforcement for the City, and is responsible for servicing the entire project area. The Police Department headquarters are located at the City

Hall Campus, 650 North La Cadena Drive in Colton, between East D Street and East E Street (see Exhibit 4.14-1), approximately one and a half miles east of the project site.

The California Highway Patrol (CHP) also serves the project area. The closest office to the site is located in San Bernardino at 2211 Western Ave. The CHP has jurisdiction of Interstate-10, adjacent to the project area.

Organization, Staffing, and Resources

Colton's Police Department is staffed with 45 sworn officers and 26 non-sworn employees. The Police Department has three divisions: 1) Administration, which includes Code Compliance; 2) Operations, which includes Detectives, Traffic Patrol and the K-9 unit; and 3) Support Services, which includes Dispatch. The staffing ratio is currently 0.87 officers per 1,000 residents, which is below the Police Department's preferred ratio of 1.25 officers per 1,000 residents (Communication with Colton Police Department, 2013).

Crime Reporting and Response Times

The Police Department had 2,196 crimes reported throughout their service area in 2011. Current incidents are reported on the department's website. The Police Department also uses the Crime Mapping website to report incidents. The Police Department's average response time to priority calls for service is approximately five (5) minutes. Ideally, response times would be 1 to 2 minutes for an officer patrolling the project area.

4.14.2.3 Hospitals

Arrowhead Regional Medical Center is a 456-bed, public access, acute care facility serving the entire County of San Bernardino. The facility is located adjacent to the project area on Pepper Avenue, and is surrounded by the CHCCSP project area. The facility is the host to a 24-hour Emergency Department, Level II Trauma Center, three Family Health Centers and is the only Burn Center serving San Bernardino, Riverside, Inyo and Mono counties.

4.14.2.4 Schools

The project site is located within the boundaries of two school districts, Rialto Unified School District (RUSD) and Colton Joint Unified School District (CJUSD). Planning Areas 21-24 are located within the CJUSD. No residential development is proposed within the CJUSD boundaries of the project site. Developer fees for Commercial/Industrial development within the CJUSD are $0.51/square foot effective July 2013.

The majority of the project site is located within RUSD. Schools that would serve the project site are Morris Elementary School (Grades K-5), Jehue Middle School (Grades 6-8) and Rialto

High School (Grades 9-12). According to the Development Fee Analysis prepared for RUSD in 2012, Morris Elementary and Jehue Middle were over capacity for the 2011/2012 school year. Rialto High was under capacity for the 2011/2012 school year. There are 42.1 acres of Medium Density Residential uses proposed for the project within RUSD boundaries. RUSD's developer fees for new residential construction are $3.69/square foot and fees for commercial/industrial construction are $0.51/square foot, effective June 2012.

4.14.2.5 Library

The Colton Public Library's three facilities provide library services in the City of Colton. The Main Public Library is located at 656 Ninth Street, the Luque Branch Library is located at 294 East "O" Street, and the Carnegie Building is located at 380 North La Cadena Drive. The Main Library is 10,700 square feet in size, the Luque Branch Library is approximately 3,000 square feet in size, and the Carnegie Building is approximately 6,400 square feet in size. These facilities serve approximately 60,000 borrowers annually and house over 80,000 items in circulation. Full staffing employs approximately 296 staff hours per week (Colton General Plan Update, 2013).

4.14.2.6 Parks, Recreation, and Community Facilities

The City of Colton Community Services Department and the County of San Bernardino maintain parks, open space, trails, and community facilities for public use in Colton.

Parks

The City of Colton Community Services Department maintains 11 developed parks in addition to a number of recreational facilities that are shared with the Colton Joint Unified School District. Parks located near the project site include Rialto City Park (Rialto), George E. Brown Jr. Park, and Davis Park. The George E. Brown Jr. Park is located in the project area, at the southeast corner of San Bernardino Avenue and Eucalyptus Avenue. Table 4.14-2, *Existing City Parks*, summarizes the City's parks.

The City Parks and Recreation Department and the Colton Joint Unified School District (CJUSD) have an agreement that allows residents to use the CJUSD's recreation areas when they are not in use for school activities. Joint-use agreements are in affect for 10 school sites within the planning area, as listed in Table 4.14-3, *CJUSD Joint-Use Facilities Field/Recreation Area*.

City parks and joint-use facilities total 112.08 acres, for a ratio of 2.11 acres of parkland per 1,000 residents. Even with the school sites included, the City remains deficient with respect to the parkland goal of 5 acres per 1,000 residents.

Table 4.14-2: Existing City Parks

Parks	Acreage
Cesar Chavez Park	10.93
Veteran's Park	13.7
Elizabeth Davis Park	6.34
George Brown Park	10.46
McKinley Park	4.13
Rich Dauer Park	2.23
Cooley Ranch Park	1.95
Fleming Park	1.66
Prado Park	1.00
N Street Parks	1.00
Max Lofy Park	0.69
Total Acreage	**54.09**

Source: City of Colton General Plan, 2013

Table 4.14-3 CJUSD Joint-Use Facilities Field/Recreation Area

School	Acres
Colton High School	14.10
Colton Middle School	11.06
Grant Elementary School	5.74
Lincoln Elementary School	5.00
Wilson Elementary School	4.92
Paul J. Rogers Elementary School	4.91
Reche Canyon Elementary School	4.54
Alice Birney Elementary School	4.39
McKinley Elementary School (included within McKinley Park)	3.33
Total Acreage	**57.99**

Source: City of Colton General Plan, 2013

Open Space

The project area includes some open space for recreation including the golf course, the detention basin at the southwest corner of San Bernardino Avenue and Eucalyptus Avenue, George E. Brown Jr. Park; and for habitat conservation, the 4.5-acre King is Coming DSF

Conservation Area.

Trails

The primary trail in the project vicinity is the Santa Ana River Trail. The Santa Ana River flows from the heights of Mount San Gorgonio, through the California Counties of San Bernardino, Riverside and Orange, toward the Pacific Ocean. The River corridor was recognized by California as a multipurpose recreation area in 1955, and was designated as a National Trail by the United States Department of the Interior in 1977. Through the continued efforts and cooperation of multiple cities, as well as the three counties along the path of the River, a cohesive vision has formed in relation to the River corridor, and for the recreational and open space value it brings to the nearby communities.

The trail is completely paved through the City of Colton and provides a Class 1 bike trail for enthusiasts of all ages. The Santa Ana River Trail may be accessed at the Colton Staging Area, located at the corner of La Cadena Drive and Tropica Rancho Road, just south of the Santa Ana River.

Community Facilities

The City of Colton operates several community centers with a full range of active and passive recreational services. Three community centers are located in proximity to Cesar Chavez Park; the Gonzales Community Center located at 670 Colton Avenue, the Hutton Community Center located at 660 Colton Avenue and the Thompson Teen Center located at 651 North Mt. Vernon Avenue. Another community center, Luque Community Center, is located near Veteran's Park at 292 East "O" Street.

Additionally, the Colton Golf Course is located in the CHCCSP project area at 1901 West Valley Blvd. This facility has been at this location for approximately 50 years.

4.14.2.7 Colton General Plan

Safety Element

The Safety Element of the General Plan includes objectives to avoid and prevent damage to property or loss of life through the implementation of codes, ordinances, special conditions and emergency action. To ensure adequate provision of fire and police protection, the following principals and standards were adopted:

Fire Hazards

Principle 2 Provide protection to property and life from fire.

Standard 4 Multi-story structures and high hazard structures shall comply with fire protection standards.

Standard 6 All developments must provide streets of adequate width to allow safe ingress and egress of emergency vehicles.

Standard 7 Major arterials and freeway shall be used for escape routes for public evacuation.

Standard 8 Reliable and sufficient water supplies for fire protection are to be provided to all development within fire hazard areas.

Standard 9 Distance between structures shall conform to standards for safe fire protection.

Standard 10 All development plans shall be reviewed by local planning, fire, water, health, road, and flood control authorities.

Proposal 6 Require all proposed area development to provide for safe and ready access for fire and other emergency equipment and for routes of escape which will safely handle evacuations.

Proposal 7 Require at least two different ingress-egress routes for significantly scaled projects.

Proposal 8 Require all proposed development to be adequately served by water supplies for community fire protection, in accordance with the California Fire Code (CFC), Appendix B. In addition, no hook-up to existing water supply should be considered, if it would lower the underground water table.

Crime and Defensible Space

Principle 1 Deter crime through proper design techniques.

Principle 2 Develop inter-agency input, coordination, and review to incorporate crime prevention techniques and methodology into the planning process.

Standard 1 Establish neighborhood watch programs.

Standard 2 Encourage the clustering of houses into small neighborhoods removed from major thoroughfares, thereby enhancing neighborhood recognition and surveillance of people or activities not normally associated with the neighborhood.

Standard 3 Require low shrubbery landscaping and discourage overnight on-street or vacant

lot parking as an aid to police and the general public in visually surveying neighborhoods.

Standard 4 Provide the business community, local residents, developers, and general public with written information about the relationships between crime prevention and physical planning.

Standard 6 In order that an image of security is established, streets shall be well lighted and pedestrian paths occur in wide open space designed to encourage high intensity use.

Standard 7 All development plans are to be reviewed by local planning and crime prevention authorities.

Proposal 1 Encourage the use and type of landscaping situated in locations so as to maximize observation, while providing the desired degree of aesthetics.

Proposal 10 Encourage (through site planning review process) the development of pedestrian amenities within public spaces and along sidewalks, thereby increasing the intensity of use, thus providing a deterrent to crime.

Proposal 11 Require a representative from the Police Department to be included in the subdivision review process.

Proposal 12 Support the expansion of the present system of lighting along streets, walkways, parking lots, and entrances to buildings.

Emergency Preparedness

Principal 1 Prepare for natural or man-made disasters such that containment of the hazard can occur immediately and evacuation of residents can take place readily.

Standard 1 All major arterials and freeways shall be designated as emergency evacuation routes.

Standard 2 Emergency procedures shall follow that of Colton's *Emergency Response Plan* and as determined by emergency officials

Standard 3 Peak load water requirements are to be met by each building required by the current edition of the California Fire Code, Appendix B.

Standard 4 Minimum road widths and clearances around structures shall follow the standards set in the Municipal Code.

Open Space and Recreation

Open Space and Conservation Element

The Open Space and Conservation Element identifies the principals, standards and plan proposals for all open space and conservation issues in the City. Many of these do not apply to the project area because they specifically address hillside development, flood zones, energy resources and mineral resources. A review of this element identified the following standards that would apply to the CHCCSP project area.

Standard 1 There shall be five (5) acres of park land per 1,000 residents.

Standard 2 Intensive human uses, such as residential development or major vehicular traffic improvements, shall be prohibited in areas of documented ecological significance.

Standard 3 The use of natural and drought tolerant vegetation shall be encouraged for landscaping in order that maintenance and water consumption are minimized.

Land Use Element

The Land Use Element (2013) identified Goal LU 12 and related policies for open space and recreation.

Goal LU-12: Provide for open space and recreation areas that meet the needs of Colton residents.

Policy LU-12.1: Preserve and protect the City's established recreational and open space uses.

Policy LU-12.2: Pursue opportunities for providing additional open space and recreation areas for residents, working toward the goal of having a City park within one-half mile of every residential neighborhood in Colton.

Policy LU-12.3: Prioritize the development of a regional park and/or sports park within City limits.

Policy LU-12.4: Provide five acres of park space for every 1,000 residents.

4.14.3 Project Impacts and Mitigation Measures

4.14.3.1 Thresholds of Significance

According to the California Environmental Quality Act (CEQA) Guidelines' Appendix G Environmental Checklist and the City's Guidelines for Implementing CEQA, to determine whether impacts to public services are significant environmental effects, the following questions are analyzed and evaluated.

a) 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 Fire Protection?

4.14.3.2 Impact Analysis

Maintenance of Acceptable Service Ratios, Response Times or Other Performance Objectives for Fire Protection Services

The Fire Department provides fire protection to the CHCCSP project area. They also provide paramedic service in the project area. The closest station is Fire Station # 212, located approximately one mile northeast of the project area at 1511 N. Rancho Avenue. The response time from the Fire Station to the project area is currently over six minutes.

In 2009, due to budget constraints, the Fire Department lost a two-person paramedic squad that had responded from Station 211. With the loss of the paramedic squad, daily staffing was reduced from 15 on-duty personnel per day to 13. In March of 2011, due to further budget constraints, the CFD lost another three personnel per shift for a total of nine, which brought the daily staffing from 13 to 10. The Fire Department initiated a rotating brown-out; a situation where one fire station was closed each day starting in March of 2011. In 2013, the Fire Department was awarded a two-year FEMA grant for $1.9 million to hire nine firefighters to stop the rotating brown-out. Since 2009, total call volume has gone from 4,999 to 5,625 per year, an 11 percent increase, while staffing has fallen from 15 personnel to 13 per day. If funding for nine fire positions is not secured by the end of the grant period in May 2015, the City may be forced to re-implement the rotating brown-outs. Brown-outs would cause the response times to the project area to increase above the target response time of six minutes (personal communication, Fire Chief McHargue, 2013).

As the project area is developed, there will be an increase in call volume due to an increase in both permanent and transitory population. This increase will impact response times city-wide

which in turn impacts fire suppression capabilities. The National Fire Protection Association Standard 1710 contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The Standard is that a structure fire should have a minimum of 15 firefighters responding. Currently, the Fire Department relies on mutual aid from neighboring jurisdictions to make up the 15 firefighters needed to fight a structure fire. Increasing call volume due to the project area's increased population, number of structures, and increased potential for incidents to occur, will have a significant impact on fire protection services and the delivery of emergency medical services. The increased call volume will have a potential cascade effect that will increase the City's need for mutual aid from neighboring jurisdictions (personal communication, Fire Chief McHargue, 2013).

The population of the project area will most likely include medically fragile patients visiting the ARMC and future new medical offices. The presence of new medical offices will increase the need for fire and emergency medical services response during routine and regional disaster settings. The present Emergency Operations Center (EOC) is located in Station 213 in close proximity to a busy rail line and an identified liquefaction zone. The EOC location currently used was not purpose-built in 1983 and was originally intended to be a multi-purpose room in a fire station. To fully meet the additional disaster needs of the project area and the entire City a new purpose-built EOC is recommended. Therefore, in order to provide adequate fire protection coverage for the CHCCSP project area, the Fire Chief has indicated that equipment and staffing apparatus from Station 212 should be relocated to a new, fully equipped fire station within the project area or in close proximity, in order to maintain adequate response time. (personal communication, Fire Chief McHargue, 2013). Mitigation measure PS-1 addresses this impact.

The General Plan Safety Element includes a number of Standards and Proposals to address potential fire hazards and emergency response that would be relevant to the planning and implementation of future development projects in the CHCCSP project area. Standards and Proposal that apply specifically to development projects are as follows:

Standard 10 all development plans shall be reviewed by local planning, fire, water health road and flood control authorities.

Proposal 6 Require all proposed area development to provide for safe and ready access for fire and other emergency equipment and for routes of escape which will safely handle evacuations.

Proposal 7 Require at least two different ingress-egress routes for significantly scaled projects.

Proposal 8 Require all proposed development to be adequately served by water supplies for community fire protection, in accordance with the California Fire Code (CFC), Appendix B.

Compliance with these standards and proposals, compliance with relevant sections of the California Building Code, and implementing mitigation measure PS-1 and PS-2 would ensure that potential impacts on the provision of Fire Protection Services by all new projects would be less than significant. Mitigation measures PS-1 and PS-2 related to Fire Protection Services are identified in Section 4.14.3.2 below.

Maintenance of Acceptable Service Ratios, Response Times or Other Performance Objectives for Police Protection Services

The demand for police services would increase with new development projects in the project area. Service standards for law enforcement are measured by the ratio of officers to population. An acceptable service ratio is 1.25 sworn officers per 1,000 residents. The present ratio is 0.87 officers per 1,000 residents. Approximately 965 new residents are projected to live in the CHCCSP project area; therefore, the City would need a minimum of one additional sworn officer to maintain an acceptable level of service for the project area.

The Police Department's average response time to priority calls for service is approximately five (5) minutes. Ideally, response times would be 1 to 2 minutes for an officer patrolling the project area. In 2008, the Police Department was authorized for 75 sworn positions. Currently, the Police Department is authorized for 49 sworn positions. Personnel cuts within the Police Department have resulted in substantial increases in response times. Future development in the project area would result in an increase in permanent residents and transitory population due to the proposed retail center, office parks, and business parks, which will result in an increase in call volume and slower response times. Additional facilities, staff and equipment are necessary to provide efficient law enforcement services to the project area (personal communication, Lieutenant deDianous, 2013).

In addition to an increase in response times, the location of the project area near Interstate-10 poses a security concern for the Police Department. Robberies and other crimes associated with retail properties planned for the project area are of special concern due to their proximity to three nearby freeway access points (Riverside Avenue, Pepper Avenue and Rancho Avenue). Easy access to the freeway can create an easy escape route for criminals and entice them to commit crimes at properties near freeways.

The CHCCSP has a provision to provide a police substation within the future retail center within Planning Area 16 or at another location deemed acceptable by the Police Department. As part of any retail development, future applicants would be required to work with the Police

Department to locate such a facility to the satisfaction of the Police Department and the City Planning Commission.

The Safety Element of the General Plan includes a section on Crime and Defensible Space that provides Standards and Policies that apply specifically to new development projects. Therefore, in addition to the provision of a new Police substation located in the CHCCSP project area, the following would apply:

Standard 7 All development plans are to be reviewed by local planning and crime prevention authorities.

Proposal 1 Encourage the use and type of landscaping situated in locations so as to maximize observation, while providing the desired degree of aesthetics.

Proposal 10 Encourage (through site planning review process) the development of pedestrian amenities within public spaces and along sidewalks, thereby increasing the intensity of use, thus providing a deterrent to crime.

Proposal 11 Require a representative from the Police Department to be included on the subdivision review process.

Proposal 12 Support the expansion of the present system of lighting along streets, walkways, parking lots, and entrances to buildings.

In summary, the proposed project would increase demand for police protection. Impacts would be less than significant with the future applicants compliance with applicable Standards and Proposals outlined in the General Plan Safety Element, and implementation of mitigation measure PS-3 identified in Section 4.14.3.2 below.

Maintenance of Acceptable Service Ratios or Performance Objectives for Public Schools

The project site is served by two school districts, the Colton Joint Unified School District and the Rialto Unified School District. Planning Areas 21-24 are located within the CJUSD. Non-residential uses are proposed for this area and no students would be generated for the CJUSD. Commercial developments in this area would be required to pay school district development fees to CJUSD.

The RUSD serves the student population that will be generated by the residential uses within the proposed project. Refer to Table 4.14-4, *Projected Number of Students to be Generated by Proposed Project,* for a summary of the RUSD school generation factors and number of students projected for the proposed project area.

Table 4.14-4 Projected Number of Students to be Generated by Future Projectsin the CHCCSP Project Area

School Type	Student Generation Factor (Student/Unit)	Number of Units Proposed	Students Generated
Detached Units			
Elementary (K-5)	0.31	108	33.48
Middle (6-8)	0.18	108	19.44
High (9-12)	0.18	108	19.44
Attached Units			
Elementary (K-5)	0.31	167	51.77
Middle (6-8)	0.17	167	28.39
High (9-12)	0.21	167	35.07
Total			**187.59**

Source: Rialto Unified School District School Facility Need Analysis, 2013

California Government Code Section 65995 (The Leroy F. Green School Facilities Act of 1998) sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project.

Sections 65996(a) and (b) state that such fees collected by school districts would "*provide full and complete school facilities mitigation"* under CEQA. These fees may be adjusted by the District over time as conditions change.

The two school districts will monitor growth in the planning area and update facilities plans to identify new facilities needs including locations, timing, and funding for expanded or new classrooms and related facilities. Each district will continue to collect development impact fees to pay for the costs of expanded facilities, in accordance with State law. Development impacts fees apply to residential and non-residential construction and would be due and payable by each project developer prior to completing a project. The amount per square foot by land use is determined by each district.

Based on the calculations above, the proposed project would result in an increase of 188 students in the RUSD. Payment of development impact fees to the School District would address the proposed project's impact on school enrollment capacity, by providing for the necessary funding for new schools and expansion to existing schools within the RUSD. Therefore, impacts to school performance objectives and enrollment capacity would be less than significant.

Maintenance of Acceptable Service Ratios or Performance Objectives for Library Services

Additional facilities and staff would be required to meet the public library demands of the project area. According to the City's General Plan (2013), a new library facility is tentatively planned to be constructed with future Civic Center improvements. Additionally, the City collects Development Impact Fees to support expansion of library services commensurate with development proposals. All future development projects, residential and nonresidential, would be required to pay these fees and would result in less than significant impacts to library services.

Maintenance of Acceptable Service Ratios or Performance Objectives for Parks and Recreation Services

The City of Colton currently does not meet its goal of providing five acres of parkland per 1,000 population. As the City's population increases, including in the project area, additional parkland will need to be provided in order to maintain the existing ratio of 2.11 acres of parkland and joint-use facilities per 1,000 persons as currently exists (see Tables 4.14-2 and 4.14-3). The City's Open Space and Conservation Element and the Land Use Element both identify this standard.

Based on an estimated build-out in the City under the new General Plan (2013), a total of 363 acres of parkland will be required to meet the General Plan goal, representing an increase of 254 acres over the existing parkland and joint-use facilities. In order to maintain and not deteriorate the existing ratio of 2.11 acres, an additional 4.14 acres of parkland would be required for the projected population growth.

The proposed CHCCSP includes residential planning areas that when developed could add an estimated 965 new residents to the City. This population increase would be expected to have a corresponding increase in usage for City park facilities.

The proposed 4.14-acre park in planning areas 12 and 14 will replace the existing 10.46-acre park at the corner of San Bernardino Avenue and Eucalyptus Avenue. The existing park provides recreation for team sports and is not equipped with typical park amenities such as playground equipment, tennis courts, basketball courts, and picnic areas. It is the City's intent to develop a larger sports park in the southerly portion of the City that will replace the existing park that currently occupies Planning Area 13. The proposed new park in planning areas 12 and 14 will be a smaller, neighborhood park within walking distance of the residential planning areas as well as neighborhoods north of San Bernardino Avenue. Amenities planned to be included for the park include but are not limited to a basketball court, tot lot, picnic area, free play space, restrooms and a parking lot. However, removal of the existing park will result in a

net loss of 5.95 acres in the short term.

The City collects parkland fees as part of its Development Impact Fee program to fund the acquisition and/or improvement of parkland. This funding may not be used for ongoing operational funding since it is intended to provide for additional parkland to offset impacts associated with new development (other than residential subdivisions). These parkland impact fees are applicable to both residential and non-residential developments. However, because the City is in a deficit for parkland, any new residents in the City would exacerbate the existing condition which is considered a significant impact.

4.14.3.3 Mitigation Measures

PS-1 In order to provide adequate fire protection coverage for the CHCCSP project area, equipment and staffing apparatus from Station 212 shall be relocated to a new, fully equipped facility within the project area or in close proximity to maintain adequate response time. In order to implement the relocation of Station 212 and staff a paramedic squad the following is recommended:

- Relocate fire station 212 from its current location at 1511 North Rancho Avenue to a location within the CHCCSP project area ideally on Olive Street between Meridian Street and North Jackson Street;
- Include a purpose-built EOC in the relocated fire station; and
- Hire six firefighter paramedics to staff a paramedic squad daily with two personnel.

PS-2 Prior to occupancy of any project buildings, all structures shall be equipped with the most reliable, commercially available fire suppression and alarm technology as required under the Uniform Building Code (UBC) standards and approved by the City of Colton Fire Department. The project applicant shall be responsible for maintaining these systems during project operations.

Furthermore, if the call load for fire inspections increases beyond fire inspection sustainability (as indicated in annual reports) for the CHCCSP, a Fire Inspector shall be provided.

PS-3 In order to improve the service ratio for the Police Department, a substation facility shall be provided within the CHCCSP area. Development impact fees shall be allocated by the City of Colton in order to provide additional officers, support personnel and new equipment for said substation. The timing of the development of this substation will be determined in consultation with the Police Department.

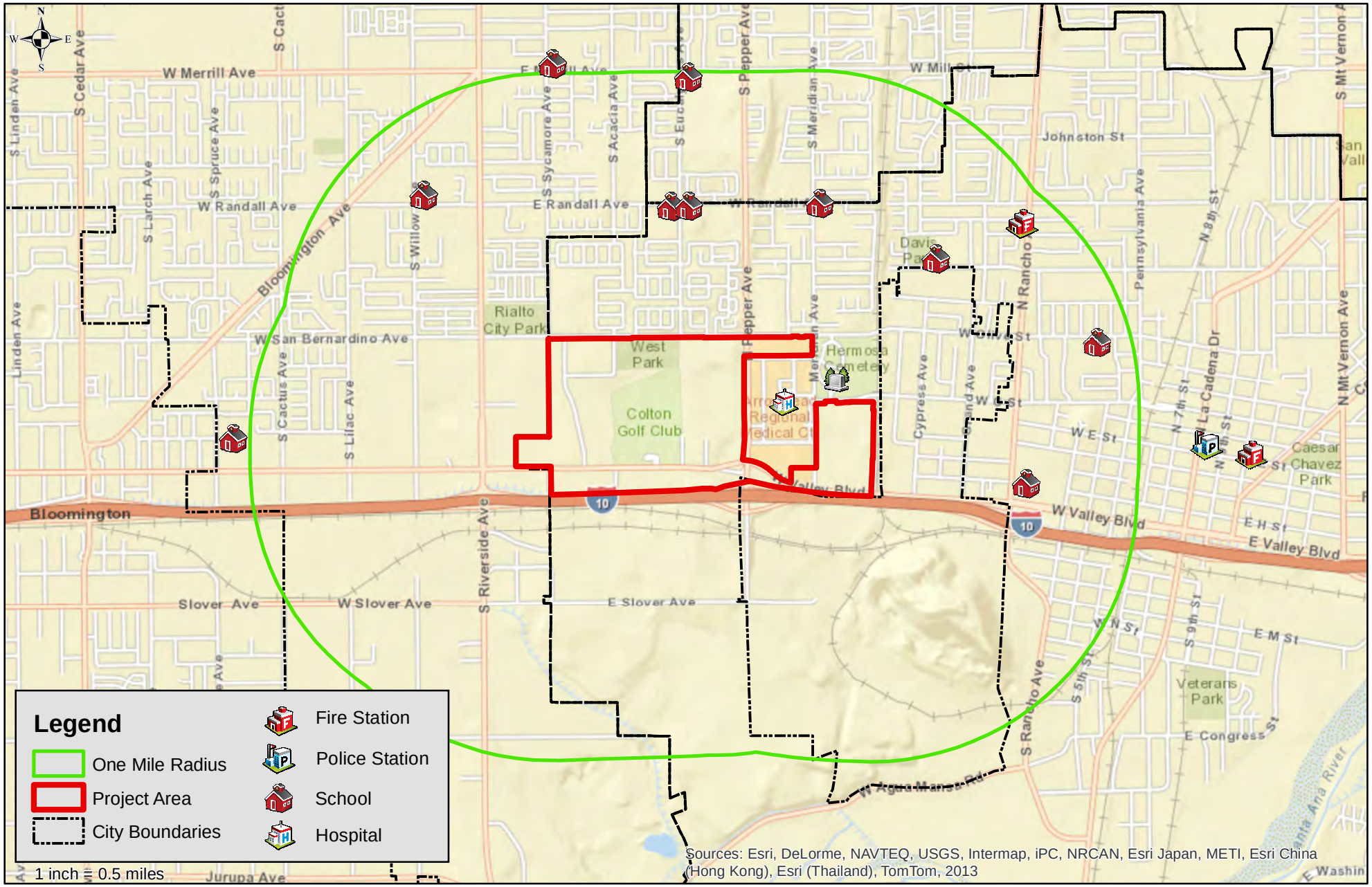
PS-4 Each developer proposing a new project, or the substantial redevelopment of a project site shall pay Development Impact Fees for all Public Services (Fire, Police, Schools, Libraries, Parks) as determined by the Community Development Director or his/her designee.

4.14.3.4 Level of Significant After Mitigation

The payment of Development Impact Fees will assist the public service providers in meeting their respective goals to provide an adequate level of service in the project area. However, for some services such as Fire and Police services, each of these providers is requesting the development of new stations which is beyond the control of an individual project applicant. The timing and location of a new Police Station, and the relocation of the existing Fire Station 212 will be determined by each service provider as development in the project area occurs. Therefore, impacts on Fire and Police services would be less than significant.

With regard to schools and libraries, the payment of Development Impacts Fees by both residential and non-residential uses will mitigate impacts on these services to less than significant levels.

With regard to Parks, the City has an existing deficit of parkland to population and adding additional new residents combined with the net loss of 5.95 acres of parkland will exacerbate and result in a significant impact that cannot be mitigated by future development projects in the project area. Therefore, impacts to Parks would remain a significant impact.



The Altum Group

Location of Public Service Providers
CHCCSP Environmental Impact Report

Exhibit 4.14-1

4.15.1 Introduction

This section describes the existing setting regarding traffic and circulation around and through the CHCCSP project area and region. Descriptions and analysis in this section are based on information contained in the *Colton's Hub City Centre Specific Plan Traffic Impact Analysis (TIA)*, prepared by Kunzman Associates, May 2014, and the City's recently adopted General Plan (2013) Mobility Element. The TIA is included in the Draft EIR in Appendix I. The General Plan Mobility Element is available at the City's website, www.ci.colton.ca.us/documentcenter/view/828.

4.15.1.1 Study Area

Regional access to the project site is mainly provided by the I-10 Freeway. Local access is provided by various roadways in the vicinity of the site. Exhibit 4.15-1, *Study Area Intersections and Reference Numbers*, shows the roadway network that will likely be affected by future projects in the CHCCSP project area. The east-west roadways which will be most affected by the project include Highland Avenue, Baseline Road, Etiwanda Avenue, Foothill Boulevard (SR-66), Rialto Avenue, Merrill Avenue, Bloomington Avenue, San Bernardino Avenue, Violet Avenue, C Street, Valley Boulevard, Slover Avenue, Jurupa Avenue, Agua Mansa Road, and Columbia Avenue. The north-south roadways expected to provide local access include Cedar Avenue, Riverside Avenue/Main Street, Wildrose Avenue, Indigo Avenue, Eucalyptus Avenue, Pepper Avenue, Meridian Avenue, Hermosa Avenue, Rancho Avenue, La Cadena Drive, and Mount Vernon Avenue.

A series of scoping discussions were conducted with the City of Colton to define the desired analysis locations for each future analysis year. In addition, the San Bernardino Associated Governments (SANBAG) staff has also been contacted to discuss the project and its associated travel patterns.

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis years (project Opening Year or Year 2035) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments are required to be included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

The City of Colton has adopted SANBAG's *Development Mitigation Nexus Study;* therefore, the City is exempt from the SANBAG *Congestion Management Program (CMP) Traffic Impact Analysis Guideline*s requirements.

Freeway System

According to the TIA, the project will contribute to traffic greater than the freeway threshold volume of

100 two-way peak hour trips to the I-10 Freeway and I-215 Freeway but will not contribute traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on facilities serving intersections in the cities of Colton, Rialto, Riverside, San Bernardino or the County of San Bernardino. This means that the City of Colton must notify California Department of Transportation (Caltrans), the cities of Rialto, Riverside and San Bernardino, and the County of San Bernardino. Each of these agencies must also be provided with a copy of the TIA, once the document is accepted by the City of Colton. (Note: The purpose of this notification is to allow Caltrans to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

4.15.1.2 Analysis Methodology

The analysis of traffic impacts from future development in the CHCCSP project area and the assessment of the required mitigation measures were based on an evaluation of the existing and forecast traffic conditions in the vicinity of the site with and without the project. The following analysis years are considered in this report:

- Existing Conditions (2013)
- Existing Plus Project Conditions
- Project Opening Year Conditions With and Without the Project (2020)
- Horizon Year Conditions With and Without the Project (2035)

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates, Inc. from April, September and November 2010, April, August and November 2011, April, May, June and July 2012, and March, July, and September 2013 (see TIA app. B in EIR Appendix I). In addition, truck classification counts were conducted at the study area intersections. The existing percent of trucks was used in the conversion of trucks to Passenger Car Equivalent's (PCE's) (see TIA app. C). Supplemental traffic data was available from the *2012 Traffic Volumes on California State Highways* prepared by Caltrans.

Project traffic volumes for all future projections were estimated using the manual approach. Trip generation has been based upon rates obtained from the Institute of Transportation Engineers, *Trip Generation*, 9th Edition, 2012.

The distributions of the project trips were based on the select zone evening peak period trip distributions from the traffic model. The socio-economic data inputs to the traffic model are representative of the planned project development intensity.

The average daily traffic volume forecasts were determined using the growth increment approach on the San Bernardino Transportation Analysis Model (SBTAM) traffic model Year 2008 and Year 2035 average daily traffic volume forecasts (see TIA app. C). Traffic model plots are included in TIA app. D.

This difference defines the growth in traffic over the 27 year period. The incremental growth in average daily traffic volumes has been factored to reflect the forecast growth between Year 2013 and Year 2035. For this purpose, linear growth between the Year 2008 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2013 and Year 2035 is 22 years of the 27 year time frame, a factor of 0.81 (i.e., 22/27) was used.

The Year 2035 without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the SBTAM traffic model Year 2008 and Year 2035 peak hour volumes. The growth increment calculation worksheets are shown in TIA app. C. Current peak hour intersection approach/departure data is a necessary input to this approach. The existing traffic count data serves as both the starting point for the refinement process, and also provides important insight into current travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The initial estimate of turning movement proportions is then entered into a spreadsheet program consistent with the *National Cooperative Highway Research Program Report 255*. A linear programming algorithm is used to calculate individual turning movements that match the known directional roadway segment volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

The Opening Year (2020) traffic volumes have been interpolated from the Year 2035 traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the Year 2035 SBTAM traffic model volumes. Quality control checks and forecast adjustments were performed as necessary to ensure that all future traffic volume forecasts reflect a minimum of 10 percent growth over existing traffic volumes. The result of this traffic forecasting procedure is a series of traffic volumes suitable for traffic operations analysis.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method (see TIA app. E) based on the *Highway Capacity Manual – Transportation Research Board Special Report 209*. To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection. The signalized intersections are considered deficient (Level of Service [LOS] F) if the overall intersection critical volume to capacity ratio equals or exceeds 1.0, even if the Level of Service defined by the delay value is below the defined Level of Service standard. The volume to capacity ratio is defined as the critical volumes divided by the intersection capacity. A volume to capacity ratio greater than 1.0 implies an infinite queue.

The LOS analysis for signalized intersections was performed using optimized signal timing. This analysis included an assumed lost time of two seconds per phase. Signal timing optimization considered

pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings was also considered in the signalized intersection analysis. The following formula was used to calculate the pedestrian minimum times for all Highway Capacity Manual runs:

(Curb to curb distance) / (4 feet/second) + 7 seconds.

For existing, existing plus project, and Opening Year (2020) traffic conditions, saturation flow rates of 1,800 vehicles per hour of green for through and right turn lanes and 1,700 vehicles per lane for single left turn lanes, 1,600 vehicles per lane for dual left turn lanes and 1,500 vehicles per lane for triple left turn lanes were assumed for the capacity analysis.

For Year 2035 traffic conditions, saturation flow rates of 1,900 vehicles per hour of green for through and right turn lanes and 1,800 vehicles per lane for single left turn lanes, 1,700 vehicles per lane for dual left turn lanes and 1,800 vehicles per lane for double right turn lanes were assumed for the capacity analysis.

The peak hour traffic volumes were adjusted to peak 15 minute volumes for analysis purposes using the existing observed peak 15 minute to peak hour factors for all scenarios analyzed. Where feasible improvements in accordance with the local jurisdiction's General Plan and which result in acceptable operations cannot be identified, the Year 2035 peak hour factor was adjusted upwards to 0.95. This is to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic to spread more evenly across time as congestion increases.

The traffic mitigation needs anticipated at the time of the project opening with full occupancy and for the Year 2035 were combined into a summary of mitigation requirements and costs. The mitigation cost responsibility for future development projects was estimated based on the percent of the increase in traffic from the existing condition to the Year 2035 that was attributed to the project generated trips.

4.15.2 Environmental Setting

4.15.2.1 Level of Service Definitions

The current technical guide to the evaluation of roadway level of service (LOS) is the 2000 Highway Capacity Manual (HCM), as updated. The HCM defines LOS as a qualitative measure that describes operational conditions within a traffic stream, generally in terms of traffic speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted. Levels of Services are generally as described in Table 4.15-1, *Level of Service Description*.

4.15.2.2 Existing Roadway Systems

Table 4.15-2, *Existing Intersection Delay and Level of Service*, shows the existing conditions for the study area roadways in terms of traffic controls and levels of service. Regional access to the CHCCSP project area is mainly provided by the I-10 Freeway. Local access is provided by various roadways in the vicinity of the site as identified in Section 4.15.1.1.

Traffic signals appear to currently be warranted at the following study area intersections for existing traffic conditions (see TIA app. F) (Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-2 and on Exhibit 4.15-1):

Meridian Avenue (NS) at:
Valley Boulevard (EW) - 40

Hermosa Avenue (NS) at:
Valley Boulevard (EW) - 42

La Cadena Drive (NS) at:
Rancho Avenue (EW) – 48;
I-215 Freeway SB Ramps (EW) – 49 and
I-215 Freeway NB Ramps (EW) - 50

The unsignalized intersections have been evaluated for traffic signals using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the *California Manual of Uniform Traffic Control Devices* (January 2012).

Existing Volumes

Exhibit 4.15-1, *Study Area Intersection and Reference Numbers*, shows the existing average daily traffic volumes. Existing intersection traffic conditions were established through morning and evening peak hour traffic counts as discussed in Section 4.15.1.1 above. The morning and evening peak hour traffic volumes were identified by counting the two-hour periods from 7:00 am to 9:00 am and 4:00 pm to 6:00 pm. The existing average daily traffic volumes were obtained from the *2012 Traffic Volumes on California State Highways* by Caltrans and factored from peak hour counts (see TIA app. B) using the following formula for each intersection leg:

PM Peak Hour (Approach + Exit Volume) x 11.5 = Daily Leg Volume

This is a conservative estimate and may over estimate the average daily traffic volumes.

Table 4.15-1 Level of Service Description

LOS	Description	Average Total Delay Per Vehicle (Seconds)	
		Signalized	Unsignalized
A	LOS A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 10.00	0 to 10.00
B	LOS B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average total delay.	10.01 to 20.00	10.01 to 15.00
C	LOS C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.01 to 35.00	15.01 to 25.00
D	LOS D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.01 to 55.00	25.01 to 35.00
E	LOS E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00	35.01 to 50.00
F	LOS F is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	80.01 and up	50.01 and up

Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 2000.

Table 4.15-2 Existing Intersection Delay and Level of Service in the Project Area

Intersection	Traffic Control[3]	Peak Hour Delay-LOS[1,2]		Jurisdiction
		Morning	Evening	
Cedar Avenue (NS) at:				
Foothill Boulevard (SR-66) (EW) - #1	TS	27.3-C	44.7-D	City of Rialto
Rialto Avenue (EW) - #2	TS	39.1-D	29.3-C	City of Rialto
San Bernardino Avenue (EW) - #3	TS	27.6-C	26.5-C	County of San Bernardino
Bloomington Avenue (EW) - #4	TS	16.8-B	18.7-B	County of San Bernardino
Valley Boulevard (EW) - #5	TS	37.4-D	38.2-D	County of San Bernardino
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[4]	19.4-B	County of San Bernardino
I-10 Freeway EB Ramps (EW) - #7	TS	20.7-C	30.4-C	County of San Bernardino
Slover Avenue (EW) - #8	TS	33.7-D	30.1-C	County of San Bernardino
Riverside Avenue (NS) at:				
Baseline Road (EW) - #9	TS	34.3-C	34.4-C	City of Rialto
Etiwanda Avenue (EW) - #10	TS	11.3-B	10.6-B	City of Rialto
Foothill Boulevard (SR-66) (EW) - #11	TS	33.8-C	37.4-D	City of Rialto
Rialto Avenue (EW) - #12	TS	35.8-D	37.2-D	City of Rialto
Merrill Avenue/Bloomington Avenue (EW)[5] - #13	TS	20.0-B	20.1-C	City of Rialto
San Bernardino Avenue (EW) - #14	TS	31.9-C	32.0-C	City of Rialto
Valley Boulevard (EW) - #15	TS	32.6-E	35.9-D	City of Rialto
I-10 Freeway WB Ramps (EW) - #16	TS	14.3-B	16.3-C	City of Rialto
I-10 Freeway EB Ramps (EW) - #17	TS	16.7-B	16.7-B	City of Rialto
Jurupa Avenue (EW) - #18	TS	15.1-B	15.3-B	City of Rialto
Agua Mansa Road (EW) - #19	TS	26.7-C	37.2-D	City of Rialto
Main Street (NS) at:				
Columbia Avenue (EW) - #20	TS	20.9-C	21.2-C	City of Riverside
SR-60 Freeway WB Ramps (EW) - #21	TS	16.9-B	18.3-C	City of Riverside
SR-60 Freeway EB Ramps (EW) - #22	TS	16.2-B	16.4-B	City of Riverside
Wildrose Avenue (NS) at:				
Valley Boulevard (EW) - #23	TS	14.6-B	15.8-B	City of Colton
Indigo Avenue (NS) at:				
San Bernardino Avenue (EW) - #24	AWS	9.2-A	10.6-B	City of Colton
Eucalyptus Avenue (NS) at:				
San Bernardino Avenue (EW) - #25	CSS	11.7-B	12.7-B	City of Colton

Table 4.15-2 Existing Intersection Delay and Level of Service (Continued)

Intersection	Traffic[3] Control	Peak Hour Delay-LOS[1,2] Morning	Peak Hour Delay-LOS[1,2] Evening	Jurisdiction
Pepper Avenue (NS) at:				
Baseline Road (EW) - #29	TS	11.0-B	11.1-B	City of Rialto
Foothill Boulevard (SR-66) (EW) - #30	TS	20.7-C	22.2-C	City of Rialto/City of San Bdno
Rialto Avenue (EW) - #31	TS	99.9-F	99.9-F	City of San Bernardino
Merrill Avenue (EW) - #32	TS	24.7-C	25.2-C	City of San Bernardino
San Bernardino Avenue (EW) - #33	TS	18.3-C	18.9-C	City of Colton
Violet Avenue (EW) - #34	TS	17.0-B	14.9-B	City of Colton
Hospital Entrance (EW) - #35	TS	14.6-B	16.4-D	City of Colton
Valley Boulevard (EW) - #36	TS	36.5-D	33.0-C	City of Colton/County of San Bernardino
I-10 Freeway WB Ramps (EW) - #37	TS	27.3-C	15.4-B	City of Colton/County of San Bernardino
I-10 Freeway EB Ramps (EW) - #38	TS	99.9-F	57.3-E	City of Colton/County of San Bernardino
Meridian Avenue (NS) at:				
San Bernardino Avenue (EW) - #39	AWS	10.5-B	15.1-C	City of Colton
Valley Boulevard (EW) - #40	CSS	13.8-B	62.9-F	City of Colton/County of San Bernardino
Hermosa Avenue (NS) at:				
C Street (EW) - #41	CSS	8.5-A	8.6-A	City of Colton/County of San Bernardino
Valley Boulevard (EW) - #42	CSS	79.7-F	10.6-B	City of Colton/County of San Bernardino
Rancho Avenue (NS) at:				
Olive Street (EW) - #43	TS	10.0-B	10.3-B	City of Colton/County of San Bernardino
Valley Boulevard (EW) - #44	TS	31.2-C	31.8-C	City of Colton/County of San Bernardino
I-10 Freeway WB Ramps (EW) - #45	TS	15.6-B	14.0-B	City of Colton/County of San Bernardino
I-10 Freeway EB Ramps (EW) - #46	TS	14.7-B	22.9-C	City of Colton/County of San Bernardino
Agua Mansa Road (EW) - #47	TS	18.8-B	17.7-B	City of Colton
La Cadena Drive (NS) at:				
Rancho Avenue (EW) - #48	CSS	12.3-B	27.0-C	City of Colton
I-215 Freeway SB Ramps (EW) - #49	CSS	13.1-B	17.3-C	City of Colton
I-215 Freeway NB Ramps (EW) - #50	CSS	11.1-B	13.5-B	City of Colton

Table 4.15-2 Existing Intersection Delay and Level of Service (Continued)

Intersection	Traffic Control[3]	Peak Hour Delay-LOS[1,2]		Jurisdiction
		Morning	Evening	
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	TS	48.1-D	57.6-E	City of Colton
I-10 Freeway EB Ramps (NS) at: Mount Vernon Avenue (EW) - #52	TS	39.7-D	51.4-D	City of Colton

Source, CHCCSP TIA, Table 1, Kunzman Associates, May2014.

Notes:

1. Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
2. 99.9-F = Delay High, Intersection Unstable, Level of Service F.
3. TS=Traffic Signal, AWS = All Way Stop, CSS = Cross Street Stop.

4.15.2.3 Existing Intersection Delays and Level of Service

The existing delay and LOS for the intersection in the vicinity of the project are shown in Table 4.14-1. The study area intersections currently operate within acceptable Levels of Service during the peak hours for existing traffic conditions, except for the following study area intersections that operate at unacceptable Levels of Service during the peak hours (numbers correspond to Exhibit 4.14-1), (existing delay worksheets are provided in TIA app. E) Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-2 and on Exhibit 4.15-1:

Cedar Avenue (NS) at: I-10 Freeway WB Ramps (EW) - 6

Pepper Avenue (NS) at:
Rialto Avenue (EW) - 31
I-10 Freeway EB Ramps (EW) - 38

Meridian Avenue (NS) at: Valley Boulevard (EW) - 40

Hermosa Avenue (NS) at: Valley Boulevard (EW) - 42

Mount Vernon Avenue (NS) at:
Valley Boulevard/I-10 Freeway WB Ramps (EW) – 51

4.15.2.4 Planned Transportation Improvements and Relationship to the General Plan

The City's Mobility Element is shown on Exhibit 4.15-2, *City of Colton General Plan Mobility Element*. This exhibit shows the nature and extent of arterial highways that are needed to adequately serve the ultimate development depicted by the General Plan Land Use Element. Roadway cross-sections are shown in Exhibit 4.15.3, *City of Colton Mobility Element Roadway Cross Sections*.

The Circulation Elements for other surrounding jurisdictions where streets would be affected are included in TIA app. G, and include the cities of Rialto and Riverside, and San Bernardino.

4.15.3 Environmental Impacts and Mitigation Measures

4.15.3.1 Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, and the City's Guidelines for Implementation of CEQA, to determine whether impacts to traffic and circulation are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

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) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

TIA Definition of a Significant Impact

The TIA provides a succinct definition of a significant impact as follows:

The identification of significant impacts is a requirement of CEQA. The City of Colton General Plan and its Mobility Element have been adopted in accordance with CEQA requirements and any roadway improvements within the City of Colton that are consistent with these documents are not considered a significant impact so long as the project contributes its "fair share" funding for improvements.

A traffic impact is considered significant if the project both : i) contributes measureable traffic to and ii) substantially and adversely changes the Level of Service at any off site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the City's General Plan cannot be constructed.

Definition of Deficiency

The definition of an intersection deficiency is provided in the City's recently adopted General Plan Mobility Element. The Mobility Element states that peak hour intersection operations of LOS D or better are generally acceptable. Therefore, any intersection operating at LOS E or LOS F will be considered deficient.

For freeway facilities, SANBAG's CMP controls the definition of deficiency for purposes of the TIA. The CMP definition of deficiency is based on maintaining a Level of Service standard of LOS E or better, except where an existing LOS F condition is identified in the CMP document (San Bernardino County CMP Table 2-1). A CMP deficiency is, therefore, defined as any freeway segment operating or projected to operate at LOS F, unless the segment is identified explicitly in the CMP document.

The identification of a CMP deficiency requires further analysis in satisfaction of CMP requirements, including:

- Evaluation of the mitigation measures required to restore traffic operations to an acceptable level with respect to CMP LOS standards.
- Calculation of the project share of new traffic on the impacted CMP facility during peak hours of traffic.
- Estimation of the cost required to implement the improvements required to restore traffic operations to an acceptable LOS as described above.

The TIA incorporated each of these aspects for all locations where a CMP deficiency is identified.

4.15.3.2 Impact Analysis

a and b) Increase in Traffic That Would Conflict with Applicable Plans, Ordinances or Policies

This analysis is specific to those portions of the CEQA Checklist related to motorized vehicle traffic, including passenger cars, trucks and buses as they relate to Level of Service on the roadway network. The analysis of the proposed CHCCSP as it relates to other modes of transportation including mass transit, and pedestrian and paths, is included below under Item f - Alternative Transportation Modes.

Project Trip Generation

The trips generated by future projects in the CHCCSP project area were determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are based on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and life styles remain similar to what is known today. These rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the trip generation rates by the land use quantities, the traffic volumes are determined. The project trip generation is based upon rates obtained from the Institute of Transportation Engineers, *Trip Generation, 9th Edition*, 2012. As shown in Table 4.15-3, *Project Trip Generation*, new development in the project area is projected to generate approximately 67,424 daily vehicle trips, 3,949 of which are projected to occur during the morning peak hour and 6,832 of which are projected to occur during the evening peak hour.

Traffic volumes shown in Table 4.14-3 consist of the total trips generated for each project land use. As a residential trip generated by the project would also be making trips to a school, commercial uses, business parks, and office uses within the project area, a double counting of those trips occurs. In order to analyze a "conservative" scenario in terms of the assignment of traffic, the traffic volumes from the CHCCSP project area were not reduced as a result of the internal interaction between the proposed land uses. It should be noted that for commercial retail land uses, a portion of the project trips would come from pass-by trips from adjacent roadways, trips that are currently on the roadway system. In order to analyze a "conservative" scenario in terms of the assignment of traffic, the traffic volumes from the project were been reduced as a result of pass-by trips (see TIA app. I).

Trip Distribution

The distribution of project trips were based on the select zone evening peak period trip distributions from the traffic model. The socio-economic data inputs to the traffic model are representative of the planned project development intensity. To determine the trip distributions for future projects in the CHCCSP project area, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site and other additional information on future development and traffic impacts in the area were reviewed.

Table 4.15-3 Project Trip Generation

PA	Land Use	Quantity[2]	Description	Peak Hour						Daily
				Morning			Evening			
				In	Out	Total	In	Out	Total	
1	Business Park	9.00 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	144	25	169	30	121	151	1,348
2	Single-Family Detached Housing	43 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	8	24	32	27	16	43	409
3	Open Space/Habitat	2.60 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Trips	0	0	0	0	0	0	0
4	Single-Family Detached Housing	62 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	12	35	47	39	23	62	590
5	Business Park	14.90 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	239	42	281	50	201	251	2,232
6	Open Space/Habitat	6.40 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Trips	0	0	0	0	0	0	0
7	Single-Family Detached Housing	46 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	9	26	35	29	17	46	438
8	Single-Family Detached Housing	59 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	11	33	44	37	22	59	562
9	Shopping Center	68.063 TSF	Rates	1.12	0.69	1.81	3.26	3.54	6.80	77.69
			Trips	76	47	123	222	241	463	5,288
	Office	130.680 TSF	Rates	1.60	0.21	1.81	0.29	1.43	1.72	12.31
			Trips	209	27	236	38	187	225	1,609
	Business Park	11.25 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	180	32	212	38	152	190	1,685
	Subtotal			465	106	571	298	580	878	8,582
10	Business Park	15.70 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	252	44	296	53	211	264	2,352
11	Open Space/Habitat	12.20 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Trips	0	0	0	0	0	0	0
12	Open Space/Park	3.91 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	1.89
			Trips	0	0	0	0	0	0	7
13	Single-Family Detached Housing	38 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	7	21	28	24	14	38	362
14	Open Space/Park	0.60 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	1.89
			Trips	0	0	0	0	0	0	1
15	Single-Family Detached Housing	27 DU	Rates	0.19	0.56	0.75	0.63	0.37	1.00	9.52
			Trips	5	15	20	17	10	27	257

Table 4.15-3 Project Trip Generation (Continued)

	Land Use	Quantity[2]	Description	Peak Hour						
				Morning			Evening			
				In	Out	Total	In	Out	Total	Daily
16	Shopping Center	741.609 TSF	Rates	0.44	0.27	0.71	1.48	1.61	3.09	33.68
			Trips	326	200	526	1,098	1,194	2,292	24,977
17	Business Park	12.10 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	194	34	228	41	163	204	1,812
18	Open Space/Habitat	27.20 AC	Rates	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Trips	0	0	0	0	0	0	0
19	Office	73.878 TSF	Rates	1.79	0.24	2.03	0.37	1.81	2.18	14.12
			Trips	132	18	150	27	134	161	1,043
	Business Park	6.36 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	102	18	120	21	86	107	953
	Subtotal			234	36	270	48	220	268	1,996
20	Shopping Center	80.586 TSF	Rates	1.05	0.65	1.70	3.09	3.35	6.44	73.24
			Trips	85	52	137	249	270	519	5,902
21	Office	69.696 tSF	Rates	1.81	0.24	2.05	0.39	1.87	2.26	14.32
			Trips	126	17	143	27	130	157	998
	Business Park	6.00AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	96	17	113	20	81	101	899
	Subtotal			222	34	256	47	211	258	1,897
22	Shopping Center	40.293 TSF	Rates	1.39	0.84	2.23	3.87	4.19	8.06	93.34
			Trips	56	34	90	156	169	325	3,761
23	Office	20.909TSF	Rates	2.30	0.33	2.63	0.81	4.07	4.88	19.13
			Trips	48	7	55	17	85	102	400
	Business Park	1.80 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	29	5	34	6	24	30	270
	Subtotal			77	12	89	23	109	132	670
24	Shopping Center	119.246 TSF	Rates	0.91	0.55	1.46	2.72	2.94	5.66	63.85
			Trips	109	66	175	324	351	675	7,614
	Office	228.951 TSF	Rates	1.43	0.20	1.63	0.25	1.21	1.46	10.76
			Trips	327	46	373	57	277	334	2,464
	Business Park	19.71 AC	Rates	16.03	2.83	18.86	3.37	13.47	16.84	149.79
			Trips	316	56	372	66	265	331	2,952
	Subtotal			752	168	920	447	893	1,340	13,030
	TOTAL			3,042	907	3,949	2,557	4,275	6,832	67,424

Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Categories 210, 411, 710, 770, and 820.

Notes: PA = Planning Area AC = Acres; DU = Dwelling Unit; TSF = Thousand Square Feet

Trip Assignment

Based on the identified trip generation and distributions, project average daily traffic volumes were calculated for the study area intersections as shown in Exhibit 4.16-1.

Project Traffic Contribution Test

No analysis is required further than 5 miles from the project area. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2035) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, were based on an estimate of the two-way traffic volumes on the roadway segments near the project area. All arterial segments were included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

According to the findings of the TIA, future projects in the CHCCSP project area would contribute traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-10 Freeway and I-215 Freeway. The project does not contribute traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on facilities serving intersections in the cities of Colton, Rialto, Riverside, San Bernardino or the County of San Bernardino. This means that the City of Colton must notify the Caltrans and these cities, and each agency must be provided with a copy of the CHCCSP TIA, once the document is accepted by the City of Colton. (Note: The purpose of this notification is to allow Caltrans to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

Future Levels of Service

Existing Plus Project Conditions

Table 4.15-4, *Existing Plus Project Delay and Level of Service – Without and With Improvements*, shows that without improvements some intersections within the study area roadway network would operate at unacceptable levels of service. Under this scenario, the following study area intersections are projected to operate at unacceptable levels of service (LOS E or LOS F) during peak hours, without improvements (note: numbers at the end of the intersection correspond with numbered intersections on Exhibit 4.16-1) Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-4 and on Exhibit 4.15-1:

Cedar Avenue (NS) at: I-10 Freeway WB Ramps (EW) - 6
Riverside Avenue (NS) at: Valley Boulevard (EW) - 15
Eucalyptus Avenue (NS) at: San Bernardino Avenue (EW) - 25
Pepper Avenue (NS) at:
Rialto Avenue (EW) - 31

Valley Boulevard (EW) - 36
I-10 Freeway WB Ramps (EW) - 37
I-10 Freeway EB Ramps (EW) – 38
Meridian Avenue (NS) at:

San Bernardino Avenue (EW) - 39
Valley Boulevard (EW) – 40

Hermosa Avenue (NS) at: Valley Boulevard (EW) - 42

La Cadena Drive (NS) at: Rancho Avenue (EW) - 48

Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - 51

I-10 Freeway EB Ramps (NS) at: Mount Vernon Avenue (EW) – 52

As shown in Table 4.16-4, for Existing Plus Project traffic conditions, all study area intersections are projected to operate at acceptable Levels of Service (LOS D or better) during the peak hours, with improvements (LOS D or better). Improvements include the installation of traffic signals at 8 intersections in the study area. These are marked in the table.

Table 4.15-4, Existing Plus Project Delay and LOS W/O and With Improvements

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Cedar Avenue (NS) at:					
Foothill Boulevard (SR-66) (EW) - #1	TS	27.4-C	46.5-D	27.4-C	46.5-D
Rialto Avenue (EW) - #2	TS	39.0-D	29.3-C	39.0-D	29.3-C
San Bernardino Avenue (EW) - #3	TS	27.9-C	27.5-C	27.9-C	27.5-C
Bloomington Avenue (EW) - #4	TS	16.9-B	19.1-B	16.9-B	19.1-B
Valley Boulevard (EW) - #5	TS	37.6-D	38.6-D	37.6-D	38.6-D
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[3]	21.9-C	20.1-C	19.8-C
I-10 Freeway EB Ramps (EW) - #7	TS	20.8-C	30.1-C	20.8-C	30.1-C
Slover Avenue (EW) - #8	TS	35.3-D	30.6-C	35.3-D	30.6-C
Riverside Avenue (NS) at:					
Baseline Road (EW) - #9	TS	34.3-C	34.5-C	34.3-C	34.5-C
Etiwanda Avenue (EW) - #10	TS	11.3-B	10.6-B	11.3-B	10.6-B
Foothill Boulevard (SR-66) (EW) - #11	TS	33.8-C	37.6-D	33.8-C	37.6-D

Table 4.15-4, Existing Plus Project Delay and LOS W/O and With Improvements (Continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Rialto Avenue (EW) - #12	TS	35.5-D	38.1-D	35.5-D	38.1-D
Merrill Avenue/Bloomington Avenue (EW)[5] - #13	TS	19.8-B	20.4-C	19.8-B	20.4-C
San Bernardino Avenue (EW) - #14	TS	33.2-C	34.4-C	33.2-C	34.4-C
Valley Boulevard (EW) - #15	TS	66.4-E	99.9-F	41.8-D	47.9-D
I-10 Freeway WB Ramps (EW) - #16	TS	13.0-B	20.1-C	13.0-B	20.1-C
I-10 Freeway EB Ramps (EW) - #17	TS	17.1-B	17.8-B	17.1-B	17.8-B
Jurupa Avenue (EW) - #18	TS	14.8-B	15.3-B	14.8-B	15.3-B
Agua Mansa Road (EW) - #19	TS	28.0-C	39.7-D	28.0-C	39.7-D
Main Street (NS) at:					
Columbia Avenue (EW) - #20	TS	22.8-C	22.0-C	22.8-C	22.0-C
SR-60 Freeway WB Ramps (EW) - #21	TS	16.8-B	20.5-C	16.8-B	20.5-C
SR-60 Freeway EB Ramps (EW) - #22	TS	17.1-B	16.9-B	17.1-B	16.9-B
Wildrose Avenue (NS) at:					
Valley Boulevard (EW) - #23	TS	18.0-B	18.7-B	17.8-B	18.5-B
Indigo Avenue (NS) at:					
San Bernardino Avenue (EW) - #24	AWS	10.5-B	19.1-C	10.5-B	19.1-C
Eucalyptus Avenue (NS) at:					
San Bernardino Avenue (EW) - #25	**CSS/TS**	33.5-D	99.9-F	10.3-B	39.3-D
Pepper Avenue (NS) at:					
Baseline Road (EW) - #29	TS	10.8-B	10.7-B	10.8-B	10.7-B
Foothill Boulevard (SR-66) (EW) - #30	TS	22.1-C	24.2-C	22.1-C	24.2-C
Rialto Avenue (EW) - #31	**TS/TS**[4]	99.9-F	99.9-F	40.6-D	41.3-D
Merrill Avenue (EW) - #32	TS	27.1-C	33.6-C	27.1-C	33.6-C
San Bernardino Avenue (EW) - #33	TS	21.5-C	24.6-C	21.5-C	24.6-C
Violet Avenue (EW) - #34	TS	16.5-B	17.9-B	16.5-B	17.9-B
Hospital Entrance (EW) - #35	TS	15.5-B	50.9-D	15.5-B	50.9-D
Valley Boulevard (EW) - #36	TS	99.9-F	99.9-F	47.0-D	49.1-D
I-10 Freeway WB Ramps (EW) - #37	TS	99.9-F	99.9-F	34.5-C	44.5-D
I-10 Freeway EB Ramps (EW) - #38	TS	99.9-F	99.9-F	27.1-C	35.2-D
Meridian Avenue (NS) at:					
San Bernardino Avenue (EW) - #39	AWS	24.9-C	99.9-F	10.8-B	12.7-B
Valley Boulevard (EW) - #40	CSS	99.9-F	99.9-F	46.0-D	35.2-D
Hermosa Avenue (NS) at:					
C Street (EW) - #41	CSS	8.5-A	8.6-A	8.5-A	8.6-A

Table 4.15-4, Existing Plus Project Delay and LOS W/O and With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Valley Boulevard (EW) - #42	**CSS/TS**	99.9-F	14.1-B	10.8-B	6.6-A
Rancho Avenue (NS) at:					
Olive Street (EW) - #43	TS	10.8-B	11.7-B	10.8-B	11.7-B
Valley Boulevard (EW) - #44	TS	40.6-D	38.8-D	40.6-D	38.8-D
I-10 Freeway WB Ramps (EW) - #45	TS	16.5-B	14.4-B	16.5-B	14.4-B
I-10 Freeway EB Ramps (EW) - #46	TS	15.2-B	23.9-C	15.2-B	23.9-C
Agua Mansa Road (EW) - #47	TS	19.2-B	19.1-B	19.2-B	19.1-B
La Cadena Drive (NS) at:					
Rancho Avenue (EW) - #48	**CSS/TS**	12.9-B	52.7-F	11.4-B	30.9-C
I-215 Freeway SB Ramps (EW) - #49	**CSS/TS**	14.7-B	23.7-C	9.6-A	11.2-B
I-215 Freeway NB Ramps (EW) - #50	**CSS/TS**	11.6-B	14.2-B	9.6-A	8.4-B
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	TS	52.5-D	99.9-F	36.8-D	40.8-D
I-10 Freeway EB Ramps (NS) at:					
Mount Vernon Avenue (EW) - #52	TS	42.0-D	80.4-F	39.6-D	50.3-D

Source: CHCCSP TIA, Tables 3 and 4, May 2014 (EIR Appendix I).

Notes:

1 Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

3 99.9-F = Delay High, Intersection Unstable, Level of Service F

4 TS/TS represents improvements to an existing signal at Pepper Avenue (NS) at Rialto Avenue (EW).

Opening Year Without Project and With/Without Improvements (2020)

This discussion concerns future conditions in 2020, the projected Opening Year but without projects in the CHCCSP project area being developed. This gives the traffic engineers and decisions makers the opportunity to view future conditions without the project's contribution to the roadway network. The Opening Year intersection delays and level of service without the development of future projects in the CHCCSP project area are shown in Table 4.15-5, *Opening Year (2020) Without Project Intersection Delay and Level of Service and Without/With Improvements*. For Opening Year (2020) without CHCCSP project traffic and with no improvements, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

Cedar Avenue (NS) at: I-10 Freeway WB Ramps (EW) - 6

Pepper Avenue (NS) at:
Rialto Avenue (EW) - 31
I-10 Freeway EB Ramps (EW) – 38

Meridian Avenue (NS) at: Valley Boulevard (EW) - 40

Hermosa Avenue (NS) at: Valley Boulevard (EW) - 42

La Cadena Drive (NS) at:
Rancho Avenue (EW) - 48
I-215 Freeway SB Ramps (EW) – 49

Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - 51

Table 4.15-5 Opening Year Without Project and Without/With Improvements

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Cedar Avenue (NS) at:					
Foothill Boulevard (SR-66) (EW) - #1	TS	27.5-C	45.9-D	27.5-C	45.9-D
Rialto Avenue (EW) - #2	TS	41.7-D	30.6-C	41.7-D	30.6-C
San Bernardino Avenue (EW) - #3	TS	27.9-C	26.9-C	27.9-C	26.9-C
Bloomington Avenue (EW) - #4	TS	17.4-B	19.5-B	17.4-B	19.5-B
Valley Boulevard (EW) - #5	TS	38.5-D	41.3-D	38.5-D	41.3-D
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[4]	22.2-C	23.1-C	18.9-B
I-10 Freeway EB Ramps (EW) - #7	TS	23.9-C	35.3-D	23.9-C	35.3-D
Slover Avenue (EW) - #8	TS	36.1-D	31.9-C	36.1-D	31.9-C
Riverside Avenue (NS) at:					
Baseline Road (EW) - #9	TS	34.9-C	35.2-D	34.9-C	35.2-D
Etiwanda Avenue (EW) - #10	TS	11.3-B	10.9-B	11.3-B	10.9-B
Foothill Boulevard (SR-66) (EW) - #11	TS	34.6-C	38.0-D	34.6-C	38.0-D
Rialto Avenue (EW) - #12	TS	35.7-D	38.1-D	35.7-D	38.1-D
Merrill Avenue/Bloomington Avenue (EW) - #13	TS	20.4-C	20.6-C	20.4-C	20.6-C
San Bernardino Avenue (EW) - #14	TS	34.6-C	34.1-C	34.6-C	34.1-C
Valley Boulevard (EW) - #15	TS	35.0-D	37.9-D	35.0-D	37.9-D
I-10 Freeway WB Ramps (EW) - #16	TS	13.8-B	17.1-B	13.8-B	17.1-B
I-10 Freeway EB Ramps (EW) - #17	TS	17.4-B	17.5-B	17.4-B	17.5-B
Jurupa Avenue (EW) - #18	TS	15.8-B	17.1-B	15.8-B	17.1-B

Table 4.15-5 Opening Year Without Project and Without/With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Agua Mansa Road (EW) - #19	TS	26.3-C	37.5-D	26.3-C	37.5-D
Main Street (NS) at:					
Columbia Avenue (EW) - #20	TS	22.3-C	23.9-C	22.3-C	23.9-C
SR-60 Freeway WB Ramps (EW) - #21	TS	16.9-B	20.1-C	16.9-B	20.1-C
SR-60 Freeway EB Ramps (EW) - #22	TS	18.5-B	20.5-C	18.5-B	20.5-C
Wildrose Avenue (NS) at:					
Valley Boulevard (EW) - #23	TS	14.6-B	15.8-B	14.6-B	15.8-B
Indigo Avenue (NS) at:					
San Bernardino Avenue (EW) - #24	AWS	9.4-A	10.6-B	9.4-A	10.6-B
Eucalyptus Avenue (NS) at:					
San Bernardino Avenue (EW) - #25	CSS	10.8-B	12.6-B	10.8-B	12.6-B
Pepper Avenue (NS) at:					
Baseline Road (EW) - #29	TS	10.7-B	10.7-B	10.7-B	10.7-B
Foothill Boulevard (SR-66) (EW) - #30	TS	20.2-C	21.9-C	20.2-C	21.9-C
Rialto Avenue (EW) - #31	**TS/TS**	99.9-F	99.9-F	33.7-C	29.0-C
Merrill Avenue (EW) - #32	TS	24.8-C	25.2-C	24.8-C	25.2-C
San Bernardino Avenue (EW) - #33	TS	18.5-B	19.0-B	18.5-B	19.0-B
Violet Avenue (EW) - #34	TS	16.9-B	14.8-B	16.9-B	14.8-B
Hospital Entrance (EW) - #35	TS	14.7-B	16.4-B	14.7-B	16.4-B
Valley Boulevard (EW) - #36	TS	38.4-D	33.8-C	38.4-D	33.8-C
I-10 Freeway WB Ramps (EW) - #37	TS	28.9-C	16.2-B	28.9-C	16.2-B
I-10 Freeway EB Ramps (EW) - #38	TS	99.9-F	58.4-E	36.8-D	30.7-C
Meridian Avenue (NS) at:					
San Bernardino Avenue (EW) - #39	AWS	10.8-A	16.1-C	10.8-A	16.1-C
Valley Boulevard (EW) - #40	**CSS/TS**	14.3-B	88.5-F	14.5-B	16.6-B
Hermosa Avenue (NS) at:					
C Street (EW) - #41	CSS	8.5-A	8.7-A	8.5-A	8.7-A
Valley Boulevard (EW) - #42	**CSS/TS**	94.2-F	10.7-B	11.1-B	6.0-A
Rancho Avenue (NS) at:					
Olive Street (EW) - #43	TS	10.0-A	10.4-B	10.0-A	10.4-B
Valley Boulevard (EW) - #44	TS	31.5-C	32.2-C	31.5-C	32.2-C
I-10 Freeway WB Ramps (EW) - #45	TS	16.2-B	14.5-B	16.2-B	14.5-B
I-10 Freeway EB Ramps (EW) - #46	TS	14.8-B	23.8-C	14.8-B	23.8-C
Agua Mansa Road (EW) - #47	TS	19.3-B	18.6-B	19.3-B	18.6-B

Table 4.15-5 Opening Year Without Project and Without/With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
La Cadena Drive (NS) at:					
Rancho Avenue (EW) - #48	**CSS/TS**	13.6-B	35.8-E	15.1-B	25.1-C
I-215 Freeway SB Ramps (EW) - #49	**CSS/TS**	14.6-B	37.5-E	11.1-B	12.1-B
I-215 Freeway NB Ramps (EW) - #50	**CSS/TS**	11.4-B	13.9-B	8.3-A	7.3-A
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	**TS/TS**	51.7-D	68.9-E	42.2-D	48.2-D
I-10 Freeway EB Ramps (NS) at:					
Mount Vernon Avenue (EW) - #52	TS	41.8-D	54.0-D	41.8-D	54.0-D

Source: CHCCSP TIA Tables 5 and 6 ,May 2014 (EIR Appendix I)

Notes:

1 Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

3 99.9-F = Delay High, Intersection Unstable, Level of Service F

4 TS/TS represents improvements to existing signals at Pepper Avenue (NS) at Rialto Avenue (EW), and Mount Vernon Avenue (NS) at Valley Blvd/I-10 Freeway West Bound Ramps (EW).

Table 4.16-5 shows that in Opening Year without the project intersection delays and level of service and with roadway improvements made all study area intersections are projected to operate at acceptable Levels of Service during the peak hours (LOS D or better) in 2020.

Opening Year With Project and With/Without Improvements (2020)

The Opening Year (2020) with project delay and Level of Service for the study area roadway network are shown in Table 4.15-6, *Opening Year With Project and Without/With Improvements*. For Opening Year (2020) With Project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements (Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-6 and on Exhibit 4.15-1):

Cedar Avenue (NS) at:
I-10 Freeway WB Ramps (EW) - #6

Riverside Avenue (NS) at:
Valley Boulevard (EW) - #15
I-10 Freeway WB Ramps (EW) - #16

Eucalyptus Avenue (NS) at:
San Bernardino Avenue (EW) - #25

Pepper Avenue (NS) at:
Rialto Avenue (EW) - #31
Hospital Entrance (EW) - #35
Valley Boulevard (EW) - #36
I-10 Freeway WB Ramps (EW) - #37
I-10 Freeway EB Ramps (EW) - #38

Meridian Avenue (NS) at:
San Bernardino Avenue (EW) - #39
Valley Boulevard (EW) - #40

Hermosa Avenue (NS) at:
Valley Boulevard (EW) - #42

La Cadena Drive (NS) at:
Rancho Avenue (EW) - #48
I-215 Freeway SB Ramps (EW) - #49

Mount Vernon Avenue (NS) at:
Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51

I-10 Freeway EB Ramps (NS) at:
Mount Vernon Avenue (EW) - #52

Table 4.15-6 Opening Year With Project and Without/With Improvements

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Cedar Avenue (NS) at:					
Foothill Boulevard (SR-66) (EW) - #1	TS	27.7-C	47.8-D	27.7-C	47.8-D
Rialto Avenue (EW) - #2	TS	41.7-D	30.6-C	41.7-D	30.6-C
San Bernardino Avenue (EW) - #3	TS	28.2-C	27.8-C	28.2-C	27.8-C
Bloomington Avenue (EW) - #4	TS	17.6-B	19.9-B	17.6-B	19.9-B
Valley Boulevard (EW) - #5	TS	38.5-D	41.8-D	38.5-D	41.8-D
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[4]	26.2-C	24.3-C	22.0-C
I-10 Freeway EB Ramps (EW) - #7	TS	24.0-C	35.0-C	24.0-C	35.0-C

Table 4.15-6 Opening Year With Project and Without/With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Slover Avenue (EW) - #8	TS	38.0-D	32.4-C	38.0-D	32.4-C
Riverside Avenue (NS) at:					
Baseline Road (EW) - #9	TS	34.9-C	35.3-D	34.9-C	35.3-D
Etiwanda Avenue (EW) - #10	TS	11.3-B	10.9-B	11.3-B	10.9-B
Foothill Boulevard (SR-66) (EW) - #11	TS	34.7-C	38.3-D	34.7-C	38.3-D
Rialto Avenue (EW) - #12	TS	36.2-D	39.2-D	36.2-D	39.2-D
Merrill Avenue/Bloomington Avenue (EW) - #13	TS	20.3-C	21.0-C	20.3-C	21.0-C
San Bernardino Avenue (EW) - #14	TS	36.5-D	37.4-D	36.5-D	37.4-D
Valley Boulevard (EW) - #15	TS	99.9-F	99.9-F	42.4-D	48.0-D
I-10 Freeway WB Ramps (EW) - #16	TS	13.4-B	99.9-F	14.8-B	17.0-B
I-10 Freeway EB Ramps (EW) - #17	TS	17.9-B	19.1-B	17.9-B	19.1-B
Jurupa Avenue (EW) - #18	TS	15.5-B	17.5-B	15.5-B	17.5-B
Agua Mansa Road (EW) - #19	TS	28.1-C	40.6-D	28.1-C	40.6-D
Main Street (NS) at:					
Columbia Avenue (EW) - #20	TS	25.3-C	26.1-C	25.3-C	26.1-C
SR-60 Freeway WB Ramps (EW) - #21	TS	18.7-B	24.0-C	16.8-B	24.0-C
SR-60 Freeway EB Ramps (EW) - #22	TS	19.9-B	21.7-C	19.9-B	21.7-C
Wildrose Avenue (NS) at:					
Valley Boulevard (EW) - #23	TS	18.0-B	18.9-B	17.8-B	18.6-B
Indigo Avenue (NS) at:					
San Bernardino Avenue (EW) - #24	AWS	10.7-B	19.2-C	10.7-B	19.2-C
Eucalyptus Avenue (NS) at:					
San Bernardino Avenue (EW) - #25	**CSS/TS**	34.3-D	99.9-F	10.2-B	10.7-B
Pepper Avenue (NS) at:					
Baseline Road (EW) - #29	TS	10.7-B	10.6-B	10.7-B	10.6-B
Foothill Boulevard (SR-66) (EW) - #30	TS	21.3-C	23.7-C	21.3-C	23.7-C
Rialto Avenue (EW) - #31	**TS/TS**	99.9-F	99.9-F	40.1-D	39.1-D
Merrill Avenue (EW) - #32	TS	27.1-C	33.6-C	27.1-C	33.6-C
San Bernardino Avenue (EW) - #33	TS	21.8-C	24.7-C	21.8-C	24.7-C
Violet Avenue (EW) - #34	TS	16.4-B	17.9-B	17.2-B	17.6-B
Hospital Entrance (EW) - #35	TS	15.8-B	99.9-F	15.6-B	25.6-C
Valley Boulevard (EW) - #36	TS	99.9-F	99.9-F	41.5-D	48.2-D
I-10 Freeway WB Ramps (EW) - #37	TS	99.9-F	99.9-F	35.8-D	45.6-D
I-10 Freeway EB Ramps (EW) - #38	TS	99.9-F	99.9-F	27.4-C	35.3-D

Table 4.15-6 Opening Year With Project and Without/With Improvements (Continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Meridian Avenue (NS) at:					
San Bernardino Avenue (EW) - #39	**AWS/TS**	27.2-D	99.9-F	10.8-B	13.0-B
Valley Boulevard (EW) - #40	**CSS/TS**	99.9-F	99.9-F	46.5-D	35.9-D
Hermosa Avenue (NS) at:					
C Street (EW) - #41	CSS	8.5-A	8.7-A	8.5-A	8.7-A
Valley Boulevard (EW) - #42	**CSS/TS**	99.9-F	14.2-B	10.8-B	6.7-A
Rancho Avenue (NS) at:					
Olive Street (EW) - #43	TS	11.0-B	11.8-B	11.0-B	11.8-B
Valley Boulevard (EW) - #44	TS	41.6-D	39.9-D	41.6-D	39.9-D
I-10 Freeway WB Ramps (EW) - #45	TS	17.1-B	14.9-B	17.1-B	14.9-B
I-10 Freeway EB Ramps (EW) - #46	TS	15.3-B	24.9-C	15.3-B	24.9-C
Agua Mansa Road (EW) - #47	TS	19.8-B	20.1-C	19.8-B	20.1-C
La Cadena Drive (NS) at:					
Rancho Avenue (EW) - #48	**CSS/TS**	14.9-B	75.3-F	12.6-B	37.1-D
I-215 Freeway SB Ramps (EW) - #49	**CSS/TS**	17.1-C	72.8-F	11.5-B	12.5-B
I-215 Freeway NB Ramps (EW) - #50	**CSS/TS**	11.9-B	14.8-B	9.6-A	8.2-A
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	**TS/TS**	58.3-E	99.9-F	38.6-D	45.2-D
I-10 Freeway EB Ramps (NS) at:					
Mount Vernon Avenue (EW) - #52	TS	44.1-D	94.3-F	41.0-D	52.1-D

Source: CHCCSP TIA Tables 7 and 8, 2014 (EIR Appendix I)

Notes:

1 Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

3 99.9-F = Delay High, Intersection Unstable, Level of Service F

4 TS/TS represents improvements to existing signals at Pepper Avenue (NS) at Rialto Avenue (EW), and Mount Vernon Avenue (NS) at Valley Blvd/I-10 Freeway West Bound Ramps (EW).

For Opening Year (2020) With Project traffic conditions, the study area intersections are projected to operate at an acceptable Levels of Service during the peak hours, with improvements. Nine signalized intersections are shown in bold, representing those that were already signalized and will require upgrades.

Year 2035 Without and With the Project

2035 Without the Project and Without/With Improvements

For Year 2035 Without Project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements (Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-7 and on Exhibit 4.15-1):

Cedar Avenue (NS) at:
- Valley Boulevard (EW) - #5
- I-10 Freeway WB Ramps (EW) - #6
- I-10 Freeway EB Ramps (EW) - #7
- Slover Avenue (EW) - #8

Main Street (NS) at:
- SR-60 Freeway EB Ramps (EW) - #22

Pepper Avenue (NS) at:
- Rialto Avenue (EW) - #31

Meridian Avenue (NS) at:
- Valley Boulevard (EW) - #40

Hermosa Avenue (NS) at:
- Valley Boulevard (EW) - #42

La Cadena Drive (NS) at:
- Rancho Avenue (EW) - #48
- I-215 Freeway SB Ramps (EW) - #49

Mount Vernon Avenue (NS) at:
- Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51

I-10 Freeway EB Ramps (NS) at:
- Mount Vernon Avenue (EW) - #52

Table 4.15-8, *Year 2035 Without the Project and Without/With Improvements* shows that when roadway improvements are made by others, all study area intersections would operate at acceptable Levels of Service.

Table 4.15-7 Year 2035 Without the Project and Without/With Improvements

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Cedar Avenue (NS) at:					
Foothill Boulevard (SR-66) (EW) - #1	TS	28.8-C	45.0-D	28.8-C	45.0-D
Rialto Avenue (EW) - #2	TS	43.2-D	32.9-C	43.2-D	32.9-C
San Bernardino Avenue (EW) - #3	TS	25.5-C	27.0-C	25.4-C	26.6-C
Bloomington Avenue (EW) - #4	TS	16.9-B	19.7-B	16.9-B	19.7-B
Valley Boulevard (EW) - #5	TS	38.8-D	55.1-E	40.6-D	36.5-D
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[4]	99.9-F	11.2-B	13.3-B
I-10 Freeway EB Ramps (EW) - #7	TS	37.9-D	99.9-F	15.9-B	19.4-B
Slover Avenue (EW) - #8	TS	58.2-E	49.9-D	42.2-D	37.3-D
Riverside Avenue (NS) at:					
Baseline Road (EW) - #9	TS	33.0-C	36.1-D	32.3-C	35.7-D
Etiwanda Avenue (EW) - #10	TS	8.5-A	7.7-A	8.5-A	7.7-A
Foothill Boulevard (SR-66) (EW) - #11	TS	38.1-D	43.0-D	38.1-D	43.0-D
Rialto Avenue (EW) - #12	TS	37.3-D	42.5-D	37.3-D	42.5-D
Merrill Avenue/Bloomington Avenue (EW) - #13	TS	24.1-C	27.7-C	23.7-C	27.7-C
San Bernardino Avenue (EW) - #14	TS	40.3-D	37.0-D	40.1-D	36.7-D
Valley Boulevard (EW) - #15	TS	43.7-D	46.0-D	42.5-D	46.0-D
I-10 Freeway WB Ramps (EW) - #16	TS	17.2-B	15.2-B	14.5-B	15.2-B
I-10 Freeway EB Ramps (EW) - #17	TS	20.4-C	24.3-C	20.4-C	24.3-C
Jurupa Avenue (EW) - #18	TS	12.7-B	17.8-B	11.2-B	16.4-B
Agua Mansa Road (EW) - #19	TS	27.8-C	51.5-D	26.6-C	40.9-D
Main Street (NS) at:					
Columbia Avenue (EW) - #20	TS	24.9-C	44.3-D	24.0-C	44.3-D
SR-60 Freeway WB Ramps (EW) - #21	TS	19.1-B	21.4-C	16.9-B	21.4-C
SR-60 Freeway EB Ramps (EW) - #22	TS	99.9-F	99.9-F	19.7-B	32.7-C
Wildrose Avenue (NS) at:					
Valley Boulevard (EW) - #23	TS	13.0-B	14.4-B	19.7-B	32.7-C
Indigo Avenue (NS) at:					
San Bernardino Avenue (EW) - #24	AWS	9.4-A	10.4-B	8.9-A	9.5-A
Eucalyptus Avenue (NS) at:					
San Bernardino Avenue (EW) - #25	CSS	11.0-B	12.2-B	11.0-B	12.2-B

Table 4.15-7 Year 2035 Without the Project and Without/With Improvements (Continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Pepper Avenue (NS) at:					
Highland Avenue (SR-30) (EW) - #26	TS	29.6-C	16.2-B	29.6-C	46.3-D
SR-210 Freeway WB Ramps (EW) - #27	TS	13.1-B	13.1-B	13.1-B	13.1-B
SR-210 Freeway EB Ramps (EW) - #28	TS	11.9-B	12.6-B	11.9-B	12.6-B
Baseline Road (EW) - #29	TS	9.1-A	8.9-A	8.9-A	8.5-A
Foothill Boulevard (SR-66) (EW) - #30	TS	21.1-C	26.1-C	20.5-C	25.1-C
Rialto Avenue (EW) - #31	**TS/TS**	99.9-F	99.9-F	31.4-C	31.7-C
Merrill Avenue (EW) - #32	TS	23.5-C	24.8-C	23.5-C	24.8-C
San Bernardino Avenue (EW) - #33	TS	16.3-B	18.0-B	16.2-B	17.8-B
Violet Avenue (EW) - #34	TS	12.8-B	10.6-B	12.8-B	10.6-B
Hospital Entrance (EW) - #35	TS	10.1-B	13.0-B	10.1-B	13.0-B
Valley Boulevard (EW) - #36	TS	34.8-C	33.0-C	33.0-C	31.5-C
I-10 Freeway WB Ramps (EW) - #37	TS	18.0-B	15.3-B	16.0-B	13.7-B
I-10 Freeway EB Ramps (EW) - #38	TS	38.0-D	40.3-D	24.6-C	26.4-C
Meridian Avenue (NS) at:					
San Bernardino Avenue (EW) - #39	**AWS/TS**	11.4-B	17.5-C	7.5-A	8.3-A
Valley Boulevard (EW) - #40	**CSS/TS**	14.5-B	76.1-F	13.5-B	16.3-B
Hermosa Avenue (NS) at:					
C Street (EW) - #41	CSS	8.5-A	8.7-A	8.5-A	8.7-A
Valley Boulevard (EW) - #42	CSS	45.6-E	11.2-B	9.1-A	1.1-A
Rancho Avenue (NS) at:					
Olive Street (EW) - #43	TS	7.1-A	7.9-A	6.9-A	7.6-A
Valley Boulevard (EW) - #44	TS	30.4-C	32.6-C	30.4-C	32.6-C
I-10 Freeway WB Ramps (EW) - #45	TS	18.7-B	16.5-B	18.6-B	16.5-B
I-10 Freeway EB Ramps (EW) - #46	TS	15.9-B	26.0-C	15.9-B	26.0-C
Agua Mansa Road (EW) - #47	TS	22.8-C	27.9-C	22.3-C	19.1-B
La Cadena Drive (NS) at:					
Rancho Avenue (EW) - #48	**CSS/TS**	26.9-D	99.9-F	8.2-A	25.8-C
I-215 Freeway SB Ramps (EW) - #49	**CSS/TS**	44.0-E	99.9-F	9.4-E	14.8-B
I-215 Freeway NB Ramps (EW) - #50	**CSS/TS**	12.8-B	15.1-C	12.8-B	12.2-B
Mount Vernon Avenue (NS) at:					
Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	**TS/TS**	57.9-E	98.9-F	43.6-D	54.2-D

Table 4.15-7 Year 2035 Without the Project and Without/With Improvements (Continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
I-10 Freeway EB Ramps (NS) at:					
Mount Vernon Avenue (EW) - #52	TS	43.4-D	72.2-E	38.5-D	45.4-D

Source: CHCCSP TIA Tables 9 and 10, May 2014 (EIR Appendix I).

Notes:

1 Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

3 99.9-F = Delay High, Intersection Unstable, Level of Service F

4 TS/TS represents improvements to existing signals at Pepper Avenue (NS) at Rialto Avenue (EW), and Mount Vernon Avenue (NS) at Valley Blvd/I-10 Freeway West Bound Ramps (EW).

Year 2035 With the Project and Without/With Improvements

Year 2035 With the Project and Without/With Improvements is shown in Table 4.15-8 *Year 2035 With Project and Without/With Improvements.* This discussion concerns future conditions in Year 2035 with projects in the CHCCSP project area being developed and with roadway improvements completed. For 2035 with CHCCSP project traffic and with roadway improvements, all study area intersections are projected to operate at acceptable Levels of Service during the peak hours (Note: the numbers at the end of each intersection correspond to the intersections listed in Table 4.15-8 and on Exhibit 4.15-1).

Table 4.15-8 Year 2035 With Project and Without/With Improvements

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Cedar Avenue (NS) at:					
Foothill Boulevard (SR-66) (EW) - #1	TS	28.9-C	46.1-D	28.9-C	46.1-D
Rialto Avenue (EW) - #2	TS	43.2-D	32.9-C	43.2-D	32.9-C
San Bernardino Avenue (EW) - #3	TS	26.0-C	28.3-C	25.9-C	27.7-C
Bloomington Avenue (EW) - #4	TS	17.1-B	19.9-B	17.1-B	19.9-B
Valley Boulevard (EW) - #5	TS	39.1-D	55.0-E	40.7-D	38.3-D
I-10 Freeway WB Ramps (EW) - #6	TS	99.9-F[4]	99.9-F	11.3-B	13.4-B
I-10 Freeway EB Ramps (EW) - #7	TS	38.6-D	99.9-F	15.9-B	19.3-B
Slover Avenue (EW) - #8	TS	61.8-E	51.2-D	43.3-D	37.8-D

Table 4.15-8 Year 2035 With the Project and Without/With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
Riverside Avenue (NS) at:					
Baseline Road (EW) - #9	TS	33.0-C	36.2-D	32.4-C	35.8-D
Etiwanda Avenue (EW) - #10	TS	8.5-A	7.7-A	8.5-A	7.7-A
Foothill Boulevard (SR-66) (EW) - #11	TS	38.1-D	43.5-D	38.1-D	43.5-D
Rialto Avenue (EW) - #12	TS	37.9-D	45.6-D	37.9-D	45.6-D
Merrill Avenue/Bloomington Avenue (EW) - #13	TS	23.5-C	28.1-C	23.5-C	28.1-C
San Bernardino Avenue (EW) - #14	TS	42.7-D	42.6-D	42.5-D	41.9-D
Valley Boulevard (EW) - #15	TS	99.9-F	99.9-F	40.3-D	51.8-D
I-10 Freeway WB Ramps (EW) - #16	TS	13.4-B	15.8-B	14.1-B	15.4-B
I-10 Freeway EB Ramps (EW) - #17	TS	21.2-C	28.5-C	21.2-C	28.5-C
Jurupa Avenue (EW) - #18	TS	12.5-B	19.0-B	10.8-B	16.4-B
Agua Mansa Road (EW) - #19	TS	29.8-C	60.2-E	28.2-C	44.1-D
Main Street (NS) at:					
Columbia Avenue (EW) - #20	TS	26.5-C	49.0-D	26.5-C	49.0-D
SR-60 Freeway WB Ramps (EW) - #21	TS	16.8-B	25.9-C	16.8-B	25.9-C
SR-60 Freeway EB Ramps (EW) - #22	TS	99.9-F	99.9-F	21.5-C	34.5-C
Wildrose Avenue (NS) at:					
Valley Boulevard (EW) - #23	TS	16.1-B	17.7-B	15.9-B	17.5-B
Indigo Avenue (NS) at:					
San Bernardino Avenue (EW) - #24	AWS	10.6-B	16.5-C	9.9-A	12.5-B
Eucalyptus Avenue (NS) at:					
San Bernardino Avenue (EW) - #25	**CSS/TS**	31.9-D	88.5-F	8.5-A	9.1-A
Pepper Avenue (NS) at:					
Highland Avenue (SR-30) (EW) - #26	TS	28.7-C	46.1-D	29.6-C	46.1-D
SR-210 Freeway WB Ramps (EW) - #27	TS	13.5-B	13.1-B	13.5-B	13.1-B
SR-210 Freeway EB Ramps (EW) - #28	TS	11.4-B	12.3-B	11.4-B	12.3-B
Baseline Road (EW) - #29	TS	9.2-A	9.2-A	9.0-A	8.8-A
Foothill Boulevard (SR-66) (EW) - #30	TS	21.2-C	27.5-C	21.8-C	26.7-C
Rialto Avenue (EW) - #31	TS	99.9-F	99.9-F	35.4-D	38.5-D
Merrill Avenue (EW) - #32	TS	24.2-C	29.2-C	24.2-C	29.2-C
San Bernardino Avenue (EW) - #33	TS	18.8-B	22.3-C	18.5-B	21.5-C
Violet Avenue (EW) - #34	TS	11.2-B	12.1-B	12.1-B	11.8-B
Hospital Entrance (EW) - #35	TS	12.4-B	32.3-C	12.0-B	16.8-B
Valley Boulevard (EW) - #36	TS	99.9-F	99.9-F	37.5-D	44.4-D

Table 4.15-8 Year 2035 Without the Project and Without/With Improvements (continued)

Intersection	Traffic Control[3,4]	Peak Hour Delay-LOS W/O Improvements[1,2]		Peak Hour Delay-LOS With Improvements	
		Morning	Evening	Morning	Evening
I-10 Freeway WB Ramps (EW) - #37	TS	56.9-E	99.9-F	21.8-C	30.6-C
I-10 Freeway EB Ramps (EW) - #38	TS	99.9-F	99.9-F	21.2-C	27.5-C
Meridian Avenue (NS) at:					
San Bernardino Avenue (EW) - #39	**AWS/TS**	29.0-D	99.9-F	8.7-A	9.7-A
Valley Boulevard (EW) - #40	**CSS/TS**	99.9-F	99.9-F	33.5-C	25.4-C
Hermosa Avenue (NS) at:					
C Street (EW) - #41	CSS	8.5-A	8.7-A	8.5-A	8.7-A
Valley Boulevard (EW) - #42	**CSS/TS**	99.9-F	14.1-B	8.7-A	1.2-A
Rancho Avenue (NS) at:					
Olive Street (EW) - #43	TS	9.8-A	10.7-B	9.5-A	9.9-A
Valley Boulevard (EW) - #44	TS	38.3-D	40.9-D	38.3-D	40.9-D
I-10 Freeway WB Ramps (EW) - #45	TS	19.4-B	16.9-B	19.4-B	16.9-B
I-10 Freeway EB Ramps (EW) - #46	TS	16.2-B	27.0-C	16.2-B	27.0-C
Agua Mansa Road (EW) - #47	TS	23.0-C	30.6-C	22.4-C	20.3-C
La Cadena Drive (NS) at:					
Rancho Avenue (EW) - #48	**CSS/TS**	49.5-E	99.9-F	8.2-A	37.6-D
I-215 Freeway SB Ramps (EW) - #49	**CSS/TS**	72.1-F	99.9-F	9.7-A	16.4-B
I-215 Freeway NB Ramps (EW) - #50	**CSS/TS**	13.0-B	16.1-C	12.6-B	14.4-B
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	**TS/TS**	63.8-E	99.9-F	41.0-D	51.5-D
I-10 Freeway EB Ramps (NS) at:					
Mount Vernon Avenue (EW) - #52	TS	46.0-D	98.0-F	39.7-D	47.0-D

Source: CHCCSP TIA Tables 11 and 12, May 2014 (EIR Appendix I)

Notes:

1 Delay and level of service has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 TS = Traffic Signal; AWS = All Way Stop; CSS = Cross Street Stop

3 99.9-F = Delay High, Intersection Unstable, Level of Service F

4 TS/TS represents improvements to existing signals at Pepper Avenue (NS) at Rialto Avenue (EW), and Mount Vernon Avenue (NS) at Valley Blvd/I-10 Freeway West Bound Ramps (EW).

Future Traffic Signal Warrant Analysis

Unsignalized intersections were evaluated for traffic signals using the Caltrans Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the *California Manual of Uniform Traffic Control Devices* (January 2012). Traffic signals are projected to be warranted at the following additional study area intersections for Opening Year (2020) With Project traffic conditions (see TIA app. F) (Note: the numbers at the end of each intersection correspond to the intersections shown on Exhibit 4.15-1):

Eucalyptus Avenue (NS) at: San Bernardino Avenue (EW) - 25

Meridian Avenue (NS) at: San Bernardino Avenue (EW) -39

A traffic signal is projected to be warranted at the following additional study area intersection for Year 2035 Without Project traffic conditions:

Meridian Avenue (NS) at: San Bernardino Avenue (EW) – 39

Congestion Management Program Freeway Evaluation

An analysis of Year 2030 freeway Level of Service is required for all freeway segments that carry 100 or more project trips in the peak hour. The freeway peak hour volume forecasts were developed using the peak period East Valley Traffic Model data directly, as discussed with the San Bernardino Associated Governments (SCAG). The project was projected to contribute traffic greater than the freeway threshold of 100 two-way trips to the I-10 Freeway and I-215 Freeway.

The analysis in the TIA conclude that 19 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the morning peak hour and 26 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the evening peak hour. The westbound/eastbound I-10 Freeway and northbound/southbound I-215 Freeway are expected to experience peak hour deficiencies.

The improvements needed to provide LOS E or better operations during the peak hour of traffic were determined in the TIA. High occupancy vehicle lanes were used, if possible, to provide LOS E or better. Otherwise, a general use lane was added. General use lanes have an assumed capacity of 2,300 vehicles per hour, while high occupancy vehicle lanes have an assumed capacity of 1,600 vehicles per hour. The freeway mainline segment volume to capacity ratios were recalculated, along with the resulting LOS. The required mainline improvements and the resulting Levels of Service for the morning and evening peak hours were identified. The TIA shows that under future conditions (2035) with the project and with improvements, freeway segments are projected to operate at acceptable Levels of Service.

c) *Air Traffic Patterns*

Airports

The CHCCSP project area is located approximately four miles from the Rialto Airport, which is the closest airport to the project area but will be closed to make way for the Rialto Renaissance Specific Plan project consisting of commercial, business center and residential uses. The next closest airport is the San Bernardino International Airport approximately 5.25 miles northeast of the project area. Finally the project area is approximately 13 miles east of the Ontario International Airport. The project area is outside of range for airport land use compatibility, and would therefore not result in a change in air traffic patterns. In addition, there are no private airstrips located in the vicinity of the proposed project area. Therefore, impacts to air traffic patterns will be less than significant.

Helipads

There are two helicopter landing pads associated with the ARMC located in an approximately 5.5 acre area at the northeast corner of the ARMC site along Meridian Avenue. Landing pads are for emergency transport of patients to and from the ARMC and are used intermittently as necessary. Exhibit 4.6-1 shows the relationship between the ARMC and proposed CHCCSP planning areas in the vicinity. As shown in this graphic, the helicopter landing area is immediately west of the Hermosa Cemetery, an area of open space with no habitable structures. New Office uses in planning areas 19, 21 and 23 may have a maximum height of 80 feet including architectural projections (60 feet + 20 feet). Maximum building height would allow buildings to be similar in height as the ARMC. The distance between the closest landing pad and any future building in Planning Area 21 would be at least 210 feet once setbacks from the property line are considered. The northerly helipad is shown in Exhibit 4.6-1.

This issue is discussed in detail in Section 4.6, Hazards and Hazardous Materials.

d) *Hazards Due to Design Features*

CHCCSP Circulation Patterns

A major road network is already in place for the CHCCSP project area, providing north/south and east/west vehicular circulation routes. These include Pepper Avenue, Meridian Avenue and Hermosa Avenue, north/south streets through the CHCCSP project area that connect to Valley Boulevard and San Bernardino Avenue (east/west streets). There is also a full interchange at Pepper Avenue and the I-10 freeway and further west is a full interchange at Riverside Avenue in the City of Rialto. The proposed CHCCSP would change local traffic patterns and increase traffic levels as planning areas develop with a mix of land uses. The proposed CHCCSP Circulation Plan provided in the EIR Project Description (Exhibit 2-5) shows additional roads that would be developed within proposed planning areas in order to provide adequate traffic circulation throughout the project area as well as

connections to existing major streets and arterials. Pedestrian and bike paths and bikeways would encourage circulation of motorized and non-motorized vehicles in a safe and orderly way. The City's recently adopted updated General Plan includes a new Circulation Element (Mobility Element) that addresses alternative and non-motorized transportation.

e) Emergency Access

The I-10 freeway, I-215 freeway and SR-60 freeway provide regional access to the project area while various roadways near the project area provide local access and primarily serve the existing area. As part of project development within the CHCCSP project area, roadways and intersections will be improved as evaluated above. The provision of an extensive internal circulation system to adequately support future land uses, the maintenance of adequate levels of service throughout the project area as the CHCCSP project area develops, and the road design standards set forth in Section 5 of the CHCCSP would ensure that streets are designed at appropriate widths, adequate visibility for on-coming traffic, and intersection stop controls. Special consideration for land use in planning areas 16, 19 and 20-24 (planning areas in the vicinity of the ARMC), include coordination with the County of San Bernardino to ensure that the proposed CHCCSP circulation system meets the needs of the County in providing adequate access to the ARMC, particularly for emergency vehicles. Mitigation measure Trans-2 calls for coordination between future applicants of development projects in the CHCCSP project area, the City and the County in order to ensure that there is adequate ingress/egress from the ARMC site.

f) Adopted Policies, Plans or Programs for Alternative Transportation Facilities

The City's General Plan update (2013) included a new Circulation Element called a Mobility Element to reflect the City's intent to broaden the discussion of access and circulation around the City by traditional means (private vehicles) as well as alternative means (buses, bicycles, pedestrian use).

Currently, the only alternative transportation options include a bicycle route along Valley Boulevard with no facilities, and several bus stops for three Omnitrans routes. The only bus stop shelter is located at the ARMC, all others are a bench and route sign. The development of projects in the CHCCSP project areaa would require the construction of needed facilities in order to improve the use of alternative transportation in the project area and the surrounding community. Exhibit 4.15-5, *Circulation Plan*, shows the proposed road network; and Exhibit 4.15-6, *Pedestrian and Bikeway Connectivity Plan*, shows how the project area is being planned as a walkable community. Finally, Exhibit 4.15-7, *Complete Streets*, shows the City's intent to work with regional agencies such as SANBAG and Omnitrans to implement Intelligent Transportation Systems measures and advance management technologies (General Plan Mobility Policy M-7.4) with regard to multi-modal transportation enhancements.

Public Transit

Omnitrans is planning to establish a BRT route along San Bernardino Avenue, Pepper Avenue and Valley Blvd with a terminus at Valley Blvd and Meridian Avenue. An additional stop along San Bernardino Avenue is also proposed. A dedicated lane for the BRT along with prioritized signalization is proposed with an alternative for queue jumper lanes. These are special lanes that allow transit vehicles to bypass queues of vehicles at congestion points such as intersections. These are currently being developed along E Street and Hospitality Lane in the City of San Bernardino.

In addition, regular bus routes should include improved bus stop shelters and turnouts. As development projects are proposed in the CHCCSP project area, project applicants, the City and Omnitrans will coordinate the inclusion of proposed new bus facilities into project development along the major arterials, Valley Blvd, Pepper Avenue, and San Bernardino Avenue. Omnitrans has established guidelines, *Omnitrans Transit Design Guidelines Final Report 2013*, for the development of transit stops that include minimum requirements for bus stop elements, roadway design at bus stops, passenger amenities such as bus shelters, bus benches, bicycle racks and landscape features that should all be considered in development plans for new projects in the CHCCSP project area along the major arterials or collector roads where bus routes may be established or enhanced. Mitigation measure Trans – 3 outlines a mechanism to ensure that Omnitrans has the opportunity to be included in the planning of future development in the CHCCSP project area, along major arterials and collector roads where transit currently exists or could be expanded to accommodate additional riders. Therefore, impacts on the provision of transit opportunities would be less than significant.

Bicycles

The only dedicated bicycle route currently in the CHCCSP project area is along Valley Blvd. The CHCCSP promotes the development of neighborhoods, business parks, professional and medical office parks and retail/retail mixed use land uses that are in close proximity in order to create a community that does not rely on the automobile to get around. Pedestrian paths and bicycle paths or a combination in the form of multi-use paths would be developed to interconnect each of these activity centers and surrounding land uses.

One of the primary goals identified for the CHCCSP project area is to create a safe, walkable community that connects the residential neighborhoods to one another, as well as to the parks, school, new commercial uses and the surrounding community. Exhibit 4.15-6 identifies the routes for both pedestrian and bicyclists. To enhance safety, all pedestrian walks along interior residential neighborhood public or private streets are separated from the street by a landscape parkway. Provisions in the CHCCSP Development Regulations and Community Design Guidelines have been provided to ensure that pedestrian connectivity is provided to interconnect all land uses to promote walking and safety.

In addition, the City of Colton requires new development projects to provide bicycle storage facilities. Because of the unique nature of the proposed mixed-use project, the CHCCSP would require applicants for future non-residential projects to provide a bicycle parking study that analyzes the specific project need for bicycle parking and storage. The study shall identify where bicycle storage would be provided in each component of the project to meet the intent of the City Zoning Ordinance. Implementation of this project design feature would result in less than significant impact related to bicycles as it actually would encourage greater bicycle usage.

Pedestrians

The principal pedestrian feature of the CHCCSP is that it is intended to be a pedestrian-oriented environment. Sidewalks would be provided along all street frontages and crosswalks on selected streets would receive a pavement treatment intended to enhance the definition of the pedestrian space. Parking would be restricted to streets and parking lots, while walkways and plazas would be located in front of storefronts.

The project area is designed so that residential neighborhoods are within a reasonable walking distance to jobs in the business parks to the south and east, the ARMC and surrounding medical offices, restaurants, entertainment venues, an elementary school, and parks and recreational facilities. Given the proximity of these uses, residents would be encouraged to walk or cycle instead of using a car. New facilities to accommodate pedestrians are proposed within each planning area. Pedestrian access is addressed in the CHCCSP design guidelines and shown in the Streetscape Sections included in Section 4.1, *Aesthetics.* Each section shows the conceptual road, landscape and pedestrian components for arterial streets as well as local and neighborhood streets. Development in the CHCCSP will provide opportunities for residents, employees and visitors to walk through the project area safely and efficiently.

4.15.3.3 Mitigation Measures

Required Improvements and Costs Roads and Intersections

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Existing Plus Project, Opening Year (2020), and Year 2035 traffic conditions. The future number of through travel lanes has been obtained from the 2011 San Bernardino Associated Governments Development Mitigation Nexus Study (see TIA app K) and the 2012 Western Riverside Council of Governments Northwest TUMF Zone Transportation Improvement Program (see TIA app. L).

The approximate costs for the improvements have generally been estimated using cost guidelines in the SANBAG's CMP Handbook (see TIA app. J). A unit cost of $400,000 for installation of a traffic signal was substituted for the somewhat lower value cited in the CMP materials.

Table 4.15-9 Summary of Intersection Improvements and Funding

Intersection	Improvement	Funded By	Cost[1]
Cedar Avenue (NS) at:			
San Bernardino Avenue (EW) - #3	Construct an additional eastbound Through Travel Lane	NEXUS	$0
Valley Boulevard (EW) - #5	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct an additional northbound Right Turn Lane	Planned Improvement	$0
	Construct a southbound Right Turn Lane	Planned Improvement	$0
	Construct an additional eastbound Through Travel Lane	Planned Improvement	$0
I-10 Freeway WB Ramps (EW) - #6	Construct an additional northbound Left Turn Lane	Planned Improvement	$0
	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct two additional southbound Through Travel Lanes	Planned Improvement	$0
	Construct an additional southbound Right Turn Lane	Planned Improvement	$0
	Construct an additional westbound Left Turn Lane	Planned Improvement	$0
	Construct an additional westbound Right Turn Lane	Planned Improvement	$0
I-10 Freeway EB Ramps (EW) - #7	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct an additional northbound Right Turn Lane	Planned Improvement	$0
	Construct an additional southbound Left Turn Lane	Planned Improvement	$0
	Construct an additional southbound Through Travel Lane	Planned Improvement	$0
	Construct an additional eastbound Left Turn Lane	Planned Improvement	$0
	Construct an additional eastbound Right Turn Lane	Planned Improvement	$0
Slover Avenue (EW) - #8	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct an additional eastbound Left Turn Lane	Planned Improvement	$0
	Construct an additional eastbound Through Travel Lane	Planned Improvement	$0
	Construct an additional westbound Left Turn Lane	Planned Improvement	$0
	Construct an additional westbound Through Travel Lane	Planned Improvement	$0

Table 4.15-9 Summary of Intersection Improvements and Funding (continued)

Intersection	Improvement	Funded By	Cost[1]
Riverside Avenue (NS) at:			
Baseline Road (EW) - #9	Construct an additional eastbound Through Travel Lane	NEXUS	$0
San Bernardino Avenue (EW) - #14	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct an additional westbound Through Travel Lane	NEXUS	$0
Valley Boulevard (EW) - #15	Construct a southbound Right Turn Lane	Planned Improvement	$0
	Construct an additional southbound Left Turn Lane	Planned Improvement	$0
	Construct an additional southbound Right Turn Lane	Planned Improvement	$0
	Construct an additional eastbound Left Turn Lane	Planned Improvement	$0
	Install eastbound Right Turn Overlap	Planned Improvement	$0
	Construct a westbound Left Turn Lane	Planned Improvement	$0
I-10 Freeway WB Ramps (EW) - #16	Construct an additional southbound Right Turn Lane	Fair Share	$50,000
Jurupa Avenue (EW) - #18	Construct an additional northbound Through Travel Lane	NEXUS	$0
	Construct an additional southbound Through Travel Lane	NEXUS	$0
Agua Mansa Road (EW) - #19	Construct an additional northbound Through Travel Lane	NEXUS	$0
	Construct an additional southbound Through Travel Lane	NEXUS	$0
	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct an additional eastbound Through Travel Lane	NEXUS	$0
Main Street (NS) at:			
SR-60 Freeway EB Ramps (EW) - #22	Construct an additional southbound Left Turn Lane	Fair Share	$50,000
Wildrose Avenue (NS) at:			
Valley Boulevard (EW) - #23	Construct a northbound Left Turn Lane	Project Improvement	$50,000
	Construct a northbound shared Through Travel/Right Turn Lane	Project Improvement	$50,000
	Stripe a westbound Left Turn Lane	Project Improvement	$10,000
Indigo Avenue (NS) at:			
San Bernardino Avenue (EW) - #24	Construct an additional westbound Through Travel Lane	NEXUS	$0

Table 4.15-9 Summary of Intersection Improvements and Funding (continued)

Intersection	Improvement	Funded By	Cost[1]
Eucalyptus Avenue (NS) at:			
San Bernardino Avenue (EW) - #25	Construct a northbound Left Turn Lane	Fair Share	$50,000
	Construct a northbound shared Through Travel/Right Turn Lane	Fair Share	$50,000
	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct a westbound Left Turn Lane	Fair Share	$50,000
	Construct an additional westbound Through Travel Lane	NEXUS	$0
	Install Traffic Signal	Fair Share	$400,000
Pepper Avenue (NS) at:			
Baseline Road (EW) - #29	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct an additional westbound Through Travel Lane	NEXUS	$0
Foothill Boulevard (SR-66) (EW) - #30	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct an additional westbound Through Travel Lane	NEXUS	$0
Rialto Avenue (EW) - #31	Construct an eastbound Left Turn Lane	Fair Share	$50,000
	Construct an additional eastbound Through Travel Lane	Fair Share	$290,000
	Construct a westbound Left Turn Lane	Fair Share	$50,000
	Construct an additional westbound Through Travel Lane	Fair Share	$290,000
	Install a Traffic Signal	Fair Share	$400,000
San Bernardino Avenue (EW) - #33	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct an additional westbound Through Travel Lane	NEXUS	$0
Violet Avenue (EW) - #34	Construct a northbound Left Turn Lane	Project Improvement	$50,000
	Construct a eastbound Left Turn Lane	Project Improvement	$50,000
	Construct a eastbound shared Through Travel/Right Turn Lane	Project Improvement	$50,000
Hospital Entrance (EW) - #35	Construct a northbound Left Turn Lane	Project Improvement	$0
	Construct a eastbound Left Turn Lane	Project Improvement	$0
	Construct a eastbound shared Through Travel/Right Turn Lane	Project Improvement	$0
Valley Boulevard (EW) - #36	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Install northbound Right Turn Overlap	Fair Share	$10,000

Table 4.15-9 Summary of Intersection Improvements and Funding (continued)

Intersection	Improvement	Funded By	Cost[1]
	Construct an additional southbound Through Travel Lane	Planned Improvement	$0
	Install southbound Right Turn Overlap	Fair Share	$10,000
	Construct an additional eastbound Through Travel Lane	Fair Share	$290,000
	Install eastbound Right Turn Overlap	Fair Share	$10,000
	Construct an additional westbound Through Travel Lane	Fair Share	$290,000
	Construct a westbound Right Turn Lane	Fair Share	$50,000
	Install westbound Right Turn Overlap	Fair Share	$10,000
I-10 Freeway WB Ramps (EW) - #37	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct an additional northbound Left Turn Lane	Planned Improvement	$0
	Construct an additional southbound Through Travel Lane	Planned Improvement	$0
	Construct an additional southbound Right Turn Lane	Planned Improvement	$0
I-10 Freeway EB Ramps (EW) - #38	Construct an additional northbound Through Travel Lane	Planned Improvement	$0
	Construct an additional southbound Left Turn Lane	Planned Improvement	$0
	Construct a southbound Left Turn/Through Travel Lane	Fair Share	$50,000
	Construct an additional eastbound Left Turn Lane	Planned Improvement	$0
Meridian Avenue (NS) at:			
San Bernardino Avenue (EW) - #39	Construct an additional eastbound Through Travel Lane	NEXUS	$0
	Construct a westbound Left Turn Lane	Fair Share	$290,000
	Construct an additional westbound Through Travel Lane	NEXUS	$0
	Install a Traffic Signal	Fair Share	$400,000
Valley Boulevard (EW) - #40	Construct an additional southbound Right Turn Lane	Fair Share	$50,000
	Construct a westbound Right Turn Lane	Fair Share	$50,000
	Install a Traffic Signal	Fair Share	$400,000
Hermosa Avenue (NS) at:			
Valley Boulevard (EW) - #42	Construct a southbound Left Turn Lane	Fair Share	$50,000
	Install a Traffic Signal	Fair Share	$400,000

Table 4.15-9 Summary of Intersection Improvements and Funding (Continued)

Intersection	Improvement	Funded By	Cost[1]
Rancho Avenue (NS) at:			
Olive Street (EW) - #43	Construct an eastbound Left Turn Lane	NEXUS	$0
	Construct a westbound Left Turn Lane	NEXUS	$0
Agua Mansa Road (EW) - #47	Construct an eastbound Left Turn Lane	NEXUS	$0
	Construct a westbound Left Turn Lane	NEXUS	$0
La Cadena Drive (NS) at:			
Rancho Avenue (EW) - #48	Construct an additional northbound Through Travel Lane	NEXUS	$0
	Construct an additional southbound Through Travel Lane	NEXUS	$0
	Install Traffic Signal	Fair Share	$400,000
I-215 Freeway SB Ramps (EW) - #49	Construct an additional northbound Through Travel Lane	TUMF	$0
	Construct an additional southbound Through Travel Lane	TUMF	$0
	Install Traffic Signal	TUMF	$0
I-215 Freeway NB Ramps (EW) - #50	Construct a northbound Through Travel Lane	TUMF	$0
	Construct a southbound Left Turn Lane	TUMF	$0
	Install Traffic Signal	TUMF	$0
Mount Vernon Avenue (NS) at:			
Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	Construct an eastbound Right Turn Lane	Planned Improvement	$0
	Construct a westbound Right Turn Lane	Planned Improvement	$0
I-10 Freeway EB Ramps (NS) at:			
Mount Vernon Avenue (EW) - #52	Construct an eastbound Left Turn Lane	Planned Improvement	$0
Total Unfunded Improvement Cost			**$4,750,000**

Source: CHCCSP TIA Table 17, May 2014, (EIR Appendix I)

Note: Funding sources for improvements will vary and include Development Impact Fees paid by each applicant that goes into the City's Capital Improvement budget, contribution of Fair Share costs spread among a number of applicants whose projects would impact these intersections, FHWA funding, or funding from SANBAG through the TUMF program.

For adding a through lane, a unit cost of $290,000 has been assumed. The needed improvements and resulting costs are summarized in the Table 4.15-9, *Summary of Intersection Improvements and Funding*. This table shows costs for intersections in the study area intersections. Where improvements have already been funded, no costs are shown in the table. The total cost of needed and unfunded intersection improvements is $4,750,000. Table 4.15-10, *Project Fair Share Intersection Traffic Contribution*, shows the amount attributable to projects in the CHCCSP project area. The project fair

share contributions were calculated for the intersection improvement locations. The project share of the costs was based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour future traffic volume. Table 4.15.10, shows the CHCCSP project area's fair share of costs for affected intersections is $3,263,875.

Required Improvements and Costs Freeways

Table 4.15-11, *Summary Freeway Mainline Peak Hour Improvements*, summarizes the freeway segment needed improvements along the I-10 and I-215 freeways. Table 4.15-12, *Project Fair Share Freeway Mainline Morning Peak Hour* and Table 4.15-13, *Project Fair Share Freeway Mainline Evening Peak Hour,* summarize the needed evening peak hour freeway mainline improvement costs and project fair share cost contribution estimates for each freeway mainline segment that will require improvements. The dollar figures are rough order of magnitude estimates only and are intended only for the discussion purposes of the TIA, and do not imply any legal responsibility or formula for contributions or mitigation.

Project Area Specific Mitigation Measures

TRANS – 1 Because development projects in the CHCCSP project area will be submitted by a number of different project applicants, the City's Public Works Department will be responsible for developing a fair share fee program for the purpose of funding for the necessary improvements identified in the CHCCSP Traffic Impact Study. The program shall specifically identify the nature, location, timing and cost of all improvements necessary to ensure that significant impacts are all adequately addressed and mitigated and the fail share program shall require the implementation of identified improvements at the appropriate time.

Specific improvements include:

a. Construct Pepper Avenue adjacent to the project from San Bernardino Avenue to the projects south boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.
b. Construct Meridian Avenue adjacent to the project from the north project boundary to Valley Boulevard at its ultimate half-section width as a Collector Street including landscaping and parkway improvements in conjunction with development.
c. Construct San Bernardino Avenue adjacent to the project from the projects west boundary to Meridian Street at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.
d. Construct Valley Boulevard adjacent to the project from the projects west boundary to the projects east boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.
e. The project site should provide sufficient parking spaces to meet City of Colton parking

code requirements in order to service on-site parking demand.

f. On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

g. Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Colton standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

TRANS – 2 Prior to development of projects in planning areas within 28, 29, 31, 32, and 35 (i.e. planning areas in closest proximity to the ARMC) or development of road and intersection improvement plans in those planning areas, site plans including circulation plans must be submitted to the County of San Bernardino Land Use Services Department (LUSD). The LUSD will be responsible for coordinating with the ARMC administration to review the plans for potential impacts that could adversely affect the operation of the ARMC. Site plans must include proposed points of ingress and egress, show how intersections will be controlled, and show where roads that access the ARMC would be improved. The County shall provide input and require revisions to proposed plans to ensure compatibility between proposed land uses and roadway improvements within these planning areas. LUSD and ARMC administration would also review plans to assess impacts to the ARMC's ability to provide safe ingress and egress of helicopters.

TRANS – 3 The City of Colton, Omnitrans and project applicants shall coordinate the necessary road and site improvements related to transit stops, road improvements along bus routes, and any other improvements that may affect transit in the CCHCSP project area. This shall be accomplished through the City's Development Review process when projects are proposed along existing or future bus routes identified by Omnitrans.

TRANS - 4 In addition, the City of Colton requires new development projects to provide bicycle storage facilities. Because of the unique nature of the proposed mixed-use project, the CHCCSP would require applicants for future non-residential projects to provide a bicycle parking study that analyzes the specific project need for bicycle parking and storage. The study shall identify where this bicycle storage would be provided in each component of the project to meet the intent of the City Zoning Ordinance. The implementation of this project design feature would result in less than significant related impacts to bicycles as it actually would encourage greater bicycle usage.

4.15.3.4 Level of Significance After Mitigation

Adherence to development and design requirements set forth in the CHCCSP, payment of development impact fees and site improvements made by individual project developers will ensure that impacts associated with Traffic and Circulation would be less than significant.

Table 4.15.10 Project Fair Share Intersection Traffic Contribution

Intersection	Year 2035 Improvement Costs[1]	Existing		Year 2035 With Project		Project		Total New Traffic		Project % of New Traffic			Fair Share Cost
		Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Average	
Cedar Avenue (NS) at:													
San Bernardino Avenue (EW) - #3	$0	4,510	4,500	5,176	5,722	114	380	666	1,222	17.1%	31.1%	24.1%	$0
Valley Boulevard (EW) - #5	$0	8,144	9,434	10,406	12,230	366	608	2,262	2,796	16.2%	21.7%	19.0%	$0
I-10 Freeway WB Ramps (EW) - #6	$0	6,932	8,030	8,990	10,952	30	134	2,058	2,922	1.5%	4.6%	3.1%	$0
I-10 Freeway EB Ramps (EW) - #7	$0	5,454	6,638	7,440	9,522	140	202	1,986	2,884	7.0%	7.0%	7.0%	$0
Slover Avenue (EW) - #8	$0	4,700	4,864	7,314	8,004	138	200	2,614	3,140	5.3%	6.4%	5.9%	$0
Riverside Avenue (NS) at:													
Baseline Road (EW) - #9	$0	6,088	6,312	6,550	6,972	12	12	462	660	2.6%	1.8%	2.2%	$0
San Bernardino Avenue (EW) - #14	$0	4,100	4,834	6,342	7,868	562	948	2,242	3,034	25.1%	31.2%	28.2%	$0
Valley Boulevard (EW) - #15	$0	4,664	7,078	8,986	12,630	1,948	2,886	4,322	5,552	45.1%	52.0%	48.6%	$0
I-10 Freeway WB Ramps (EW) - #16	$50,000	5,456	7,026	9,332	11,700	1,192	1,700	3,876	4,674	30.8%	36.4%	33.6%	$16,800
Jurupa Avenue (EW) - #18	$0	3,388	3,786	6,320	8,044	440	624	2,932	4,258	15.0%	14.7%	14.9%	$0
Agua Mansa Road (EW) - #19	$0	2,000	2,804	5,578	7,878	434	618	3,578	5,074	12.1%	12.2%	12.2%	$0
Main Street (NS) at:													
SR-60 Freeway EB Ramps (EW) - #22	$50,000	3,086	3,834	5,346	7,250	186	210	2,260	3,416	8.2%	6.1%	7.2%	$3,575
Wildrose Avenue (NS) at:													
Valley Boulevard (EW) - #23	$110,000	1,300	2,000	4,658	6,830	2,958	4,150	3,358	4,830	88.1%	85.9%	87.0%	$95,700
Indigo Avenue (NS) at:													
San Bernardino Avenue (EW) - #24	$0	828	1,294	1,472	2,178	450	800	644	884	69.9%	90.5%	80.2%	$0
Eucalyptus Avenue (NS) at:													
San Bernardino Avenue (EW) - #25	$550,000	882	1,266	1,856	2,714	776	1,334	974	1,448	79.7%	92.1%	85.9%	$472,450
Pepper Avenue (NS) at:													
Baseline Road (EW) - #29	$0	3,498	3,220	6,358	7,420	434	1,062	2,860	4,200	15.2%	25.3%	20.3%	$0
Foothill Boulevard (SR-66) (EW) - #30	$0	3,474	5,312	6,234	9,724	658	1,604	2,760	4,412	23.8%	36.4%	30.1%	$0
Rialto Avenue (EW) - #31	$1,080,000	5,102	4,784	6,936	8,150	834	1,972	1,834	3,366	45.5%	58.6%	52.1%	$562,140
San Bernardino Avenue (EW) - #33	$0	3,322	4,176	6,106	9,092	2,186	4,254	2,784	4,916	78.5%	86.5%	82.5%	$0
Violet Avenue (EW) - #34	$150,000	3,078	3,556	5,452	7,520	1,952	3,720	2,374	3,964	82.2%	93.8%	88.0%	$132,000
Hospital Entrance (EW) - #35	$0	3,378	3,882	5,918	8,748	2,078	4,608	2,540	4,866	81.8%	94.7%	88.3%	$0
Valley Boulevard (EW) - #36	$670,000	5,728	6,106	10,886	15,002	4,466	7,924	5,158	8,896	86.6%	89.1%	87.9%	$588,595
I-10 Freeway WB Ramps (EW) - #37	$0	5,012	4,770	8,046	10,236	2,512	4,794	3,034	5,466	82.8%	87.7%	85.3%	$0
I-10 Freeway EB Ramps (EW) - #38	$50,000	2,402	2,700	3,760	5,642	956	2,682	1,358	2,942	70.4%	91.2%	80.8%	$40,400
Meridian Avenue (NS) at:													
San Bernardino Avenue (EW) - #39	$690,000	1,206	1,962	2,474	3,732	972	1,292	1,268	1,770	76.7%	73.0%	74.9%	$516,465
Valley Boulevard (EW) - #40	$500,000	1,514	1,996	4,134	6,070	2,334	3,490	2,620	4,074	89.1%	85.7%	87.4%	$437,000

Table 4.15.10 Project Fair Share Intersection Traffic Contribution (Continued)

Intersection	Year 2035 Improvement Costs[1]	Existing		Year 2035 With Project		Project		Total New Traffic		Project % of New Traffic			Fair Share Cost
		Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Morning	Evening	Average	
Hermosa Avenue (NS) at:													
Valley Boulevard (EW) - #42	$450,000	1,998	1,536	3,080	3,314	760	1,194	1,082	1,778	70.2%	67.2%	68.7%	$309,150
Rancho Avenue (NS) at:													
Olive Street (EW) - #43	$0	1,856	3,068	3,144	4,392	584	830	1,288	1,324	45.3%	62.7%	54.0%	$0
Agua Mansa Road (EW) - #47	$0	2,400	2,772	4,166	4,932	306	492	1,766	2,160	17.3%	22.8%	20.1%	$0
La Cadena Drive (NS) at:													
Rancho Avenue (EW) - #48	$400,000	2,094	3,186	2,926	5,170	226	350	832	1,984	27.2%	17.6%	22.4%	$89,600
I-215 Freeway SB Ramps (EW) - #49	$0	1,870	2,364	3,416	4,756	196	216	1,546	2,392	12.7%	9.0%	10.9%	$0
I-215 Freeway NB Ramps (EW) - #50	$0	2,170	3,002	3,132	3,918	132	158	962	916	13.7%	17.2%	15.5%	$0
Mount Vernon Avenue (NS) at: Valley Boulevard/I-10 Freeway WB Ramps (EW) - #51	$0	3,282	4,460	4,858	7,012	376	952	1,576	2,552	23.9%	37.3%	30.6%	$0
I-10 Freeway EB Ramps (NS) at:													
Mount Vernon Avenue (EW) - #52	$0	3,542	4,776	4,686	6,712	266	730	1,144	1,936	23.3%	37.7%	30.5%	$0
Total													**$3,263,875**

Source: Kunzman Associates, TIA, October 2013 (EIR Appendix I)

Table 4.15-11 Summary Freeway Mainline Peak Hour Improvements

Freeway	Segment Limits	Segment Length (Miles)	Improvement (Lanes Added)		Cost Per Mile		Total Cost
			General	HOV	General	HOV	
I-10 WB	Tippecanoe Ave to Waterman Ave	1.02	2	0	$2,400,000	$2,200,000	$ 4,896,000
	Waterman Ave to I-215 Freeway	1.02	2	0	$2,400,000	$2,200,000	$ 4,896,000
	I-215 Fwy to Mount Vernon Ave	0.99	2	0	$2,400,000	$2,200,000	$ 4,752,000
	Mount Vernon to La Cadena Dr	0.63	3	0	$2,400,000	$2,200,000	$ 4,536,000
	La Cadena Dr to Rancho Ave	0.66	3	0	$2,400,000	$2,200,000	$ 4,752,000
	Rancho Ave to Pepper Ave	1.00	3	0	$2,400,000	$2,200,000	$ 7,200,000
	Pepper Ave to Riverside Ave	0.99	2	0	$2,400,000	$2,200,000	$ 4,752,000
	Riverside Ave to Cedar Ave	1.48	3	0	$2,400,000	$2,200,000	$10,656,000
	Cedar Ave to Sierra Avenue	2.27	3	0	$2,400,000	$2,200,000	$16,344,000
	Sierra Ave to Citrus Avenue	1.04	3	0	$2,400,000	$2,200,000	$ 7,488,000
I-10 EB	Citrus Ave to Sierra Avenue	1.04	2	0	$2,400,000	$2,200,000	$4,992,000
	Sierra Ave to Cedar Avenue	2.27	2	0	$2,400,000	$2,200,000	$10,896,000
	Cedar Ave to Riverside Ave	1.48	2	0	$2,400,000	$2,200,000	$7,104,000
	Riverside Ave to Pepper Ave	0.99	2	0	$2,400,000	$2,200,000	$ 4,752,000
	Pepper Ave to Rancho Ave	1.00	2	0	$2,400,000	$2,200,000	$ 4,800,000
	Rancho Ave to La Cadena Ave	0.66	2	0	$2,400,000	$2,200,000	$ 3,168,000
	La Cadena Dr to Mount Vernon Ave	0.63	2	0	$2,400,000	$2,200,000	$ 3,024,000
	Mount Vernon Ave to I-215 Fwy	0.99	2	0	$2,400,000	$2,200,000	$ 4,752,000
	I-215 Fwy to Waterman Ave	1.02	2	0	$2,400,000	$2,200,000	$ 4,896,000
	Waterman Ave to Tippecanoe Ave	1.02	2	0	$2,400,000	$2,200,000	$ 4,896,000
I-215 NB	Barton Rd to Mount Vernon Ave	1.37	0	0	$2,400,000	$2,200,000	$
	Mount Vernon Ave to I-10 Fwy	1.37	1	0	$2,400,000	$2,200,000	$ 3,288,000
	I-10 Freeway to Auto Center Dr	0.97	1	0	$2,400,000	$2,200,000	$ 2,328,000
	Auto Center Dr to Inland Center Dr	0.56	1	0	$2,400,000	$2,200,000	$ 1,344,000
	Inland Center Dr to Mill St	0.48	1	0	$2,400,000	$2,200,000	$ 1,152,000
	Mill St to 2nd St	0.73	1	0	$2,400,000	$2,200,000	$ 1,752,000
	2nd St to 5th St	0.40	0	0	$2,400,000	$2,200,000	$
	5th St to Baseline St	0.90	1	0	$2,400,000	$2,200,000	$ 2,160,000
	Baseline St to SR-259	0.52	0	0	$2,400,000	$2,200,000	$

Table 4.15-11 Summary Freeway Mainline Peak Hour Improvements (continued)

Freeway	Segment Limits	Segment Length (Miles)	Improvement (Lanes Added)		Cost Per Mile		Total Cost
			General	HOV	General	HOV	
I-215 SB	SR-259 to Baseline St	0.52	1	0	$2,400,000	$2,200,000	$ 1,248,000
	Baseline St to 5th St	0.90	1	0	$2,400,000	$2,200,000	$2,160,000
	5th St to 2nd St	0.40	1	0	$2,400,000	$2,200,000	$ 960,000
	2nd St to Mill St	0.73	1	0	$2,400,000	$2,200,000	$ 1,752,000
	Mill St to Inland Center Dr	0.48	1	0	$2,400,000	$2,200,000	$ 1,152,000
	Inland Center Dr to Auto Center Dr	0.56	1	0	$2,400,000	$2,200,000	$ 1,344,000
	Auto Center Dr to I-10 Fwy	0.97	1	0	$2,400,000	$2,200,000	$ 2,328,000
	I-10 Fwy to Mount Vernon Ave	1.37	2	0	$2,400,000	$2,200,000	$ 6,576,000
	Mount Vernon Ave to Barton Rd	1.37	1	0	$2,400,000	$2,200,000	$ 3,288,000
Total							**$156,384,000**

Source: CHCCSP TIA Table 18, May 2014, (EIR Appendix I)

Table 4.15-12 Project Fair Share Freeway Mainline Morning Peak Hour

Freeway	Segment Limits	Existing Traffic	2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic
I-10 WB	Tippecanoe Avenue to Waterman Avenue	11,425	15,381	202	3,956	5.1%
	Waterman Avenue to I-215 Freeway	13,309	14,842	202	1,533	13.2%
	I-215 Freeway to Mount Vernon Avenue	11,440	14,969	202	3,529	5.7%
	Mount Vernon Avenue to La Cadena Drive	11,674	16,449	221	4,775	4.6%
	La Cadena Drive to Rancho Avenue	11,440	15,541	221	4,101	5.4%
	Rancho Avenue to Pepper Avenue	11,324	15,508	221	4,184	5.3%
	Pepper Avenue to Riverside Avenue	11,265	14,971	75	3,705	2.0%
	Riverside Avenue to Cedar Avenue	11,208	15,574	499	4,367	11.4%
	Cedar Avenue to Sierra Avenue	11,499	16,449	444	4,950	9.0%
	Sierra Avenue to Citrus Avenue	11,907	16,330	444	4,423	10.0%
I-10 EB	Citrus Avenue to Sierra Avenue	5,294	9,824	760	4,530	16.8%
	Sierra Avenue to Cedar Avenue	5,113	9,796	760	4,683	16.2%
	Cedar Avenue to Riverside Avenue	4,983	9,321	760	4,338	17.5%

Table 4.15-12 Project Fair Share Freeway Mainline Morning Peak Hour (continued)

Freeway	Segment Limits	Existing Traffic	2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic
	Riverside Avenue to Pepper Avenue	5,010	9,423	787	4,413	17.8%
	Pepper Avenue to Rancho Avenue	5,035	9,425	787	4,390	17.9%
	Rancho Avenue to La Cadena Avenue	5,087	9,427	787	4,340	18.1%
	La Cadena Drive to Mount Vernon Avenue	5,191	8,979	263	3,787	7.0%
	Mount Vernon Avenue to I-215 Freeway	5,087	8,783	145	3,695	3.9%
	I-215 Freeway to Waterman Avenue	5,918	7,631	130	1,713	7.6%
	Waterman Avenue to Tippecanoe Avenue	5,080	8,717	130	3,637	3.6%
I-215 NB	Barton Road to Mount Vernon Avenue	4,210	5,800	11	,590	0.7%
	Mount Vernon Avenue to I-10 Freeway	4,558	6,718	11	2,160	0.5%
	I-10 Freeway to Auto Center Drive	4,125	5,893	11	1,768	0.6%
	Auto Center Drive to Inland Center Drive	3,726	6,551	11	2,825	0.4%
	Inland Center Drive to Mill Street	3,593	5,663	11	2,071	0.5%
	Mill Street to 2nd Street	3,619	6,024	11	2,405	0.5%
	2nd Street to 5th Street	3,326	5,787	11	2,461	0.4%
	5th Street to Baseline Street	3,326	5,577	11	2,251	0.5%
	Baseline Street to SR-259	3,060	4,593	11	1,533	0.7%
I-215 SB	SR-259 to Baseline Street	6,661	11,580	32	4,919	0.6%
	Baseline Street to 5th Street	7,240	12,495	32	5,255	0.6%
	5th Street to 2nd Street	7,240	12,241	32	5,001	0.6%
	2nd Street to Mill Street	7,878	12,400	32	4,522	0.7%
	Mill Street to Inland Center Drive	7,819	10,969	32	3,150	1.0%
	Inland Center Drive to Auto Center Drive	8,108	11,364	32	3,256	1.0%
	Auto Center Drive to I-10 Freeway	8,978	12,935	32	3,957	0.8%
	I-10 Freeway to Mount Vernon Avenue	9,923	13,259	32	3,336	0.9%
	Mount Vernon Avenue to Barton Road	9,164	11,696	32	2,533	1.2%

Source: CHCCSP TIA Table 20, May 2014, (EIR Appendix I)

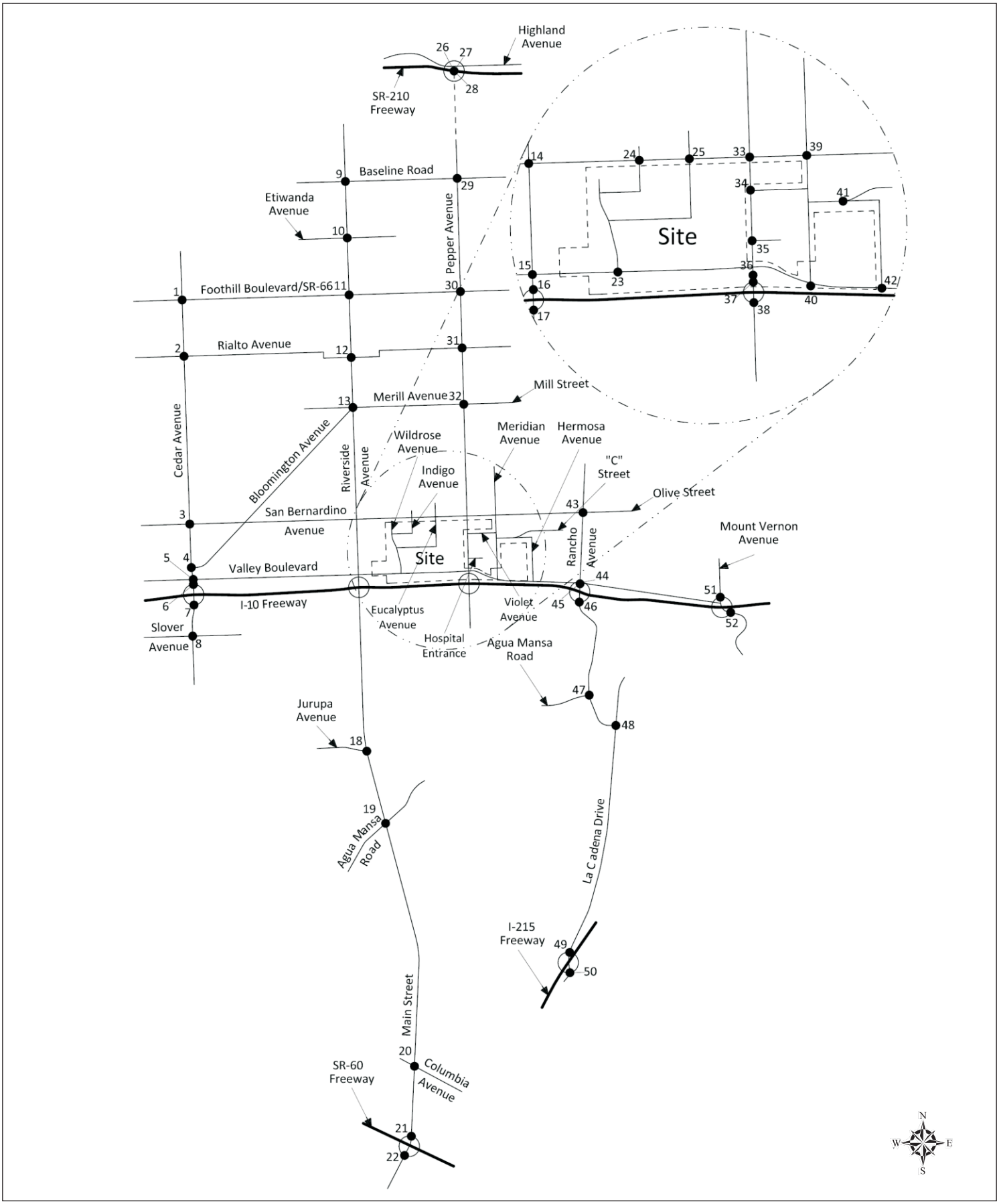
Table 4.15-13 Project Fair Share Freeway Mainline Evening Peak Hour

Freeway	Segment Limits	Existing Traffic	2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic
I-10 WB	Tippecanoe Avenue to Waterman Avenue	6,720	11,742	1010	5,023	20.1%
	Waterman Avenue to I-215 Freeway	7,829	13,544	1010	5,715	17.7%
	I-215 Freeway to Mount Vernon Avenue	6,730	11,898	1010	5,168	19.5%
	Mount Vernon Avenue to La Cadena Drive	6,867	12,173	1101	5,306	20.7%
	La Cadena Drive to Rancho Avenue	6,730	11,905	1101	5,175	21.3%
	Rancho Avenue to Pepper Avenue	6,660	11,801	1101	5,140	21.4%
	Pepper Avenue to Riverside Avenue	6,627	11,084	427	4,457	9.6%
	Riverside Avenue to Cedar Avenue	6,592	11,228	444	4,636	9.6%
	Cedar Avenue to Sierra Avenue	6,765	12,444	410	5,679	7.2%
	Sierra Avenue to Citrus Avenue	7,004	11,339	410	4,335	9.5%
I-10 EB	Citrus Avenue to Sierra Avenue	11,094	15,358	562	4,264	13.2%
	Sierra Avenue to Cedar Avenue	10,714	14,736	562	4,022	14.0%
	Cedar Avenue to Riverside Avenue	10,442	13,564	562	3,122	18.0%
	Riverside Avenue to Pepper Avenue	10,496	13,745	647	3,248	19.9%
	Pepper Avenue to Rancho Avenue	10,551	4,864	647	4,314	15.0%
	Rancho Avenue to La Cadena Avenue	10,659	14,983	647	4,323	15.0%
	La Cadena Drive to Mount Vernon Avenue	10,877	14,909	272	4,032	6.8%
	Mount Vernon Avenue to I-215 Freeway	10,659	15,065	727	4,406	16.5%
	I-215 Freeway to Waterman Avenue	12,401	14,449	661	2,048	32.2%
	Waterman Avenue to Tippecanoe Avenue	10,645	14,309	661	3,665	18.0%
I-215 NB	Barton Road to Mount Vernon Avenue	9,104	10,670	45	1,566	2.9%
	Mount Vernon Avenue to I-10 Freeway	9,857	12,573	45	2,716	1.7%
	I-10 Freeway to Auto Center Drive	8,918	12,421	45	3,503	1.3%
	Auto Center Drive to Inland Center Drive	8,055	12,734	45	4,678	1.0%
	Inland Center Drive to Mill Street	7,768	11,927	45	4,158	1.1%
	Mill Street to 2nd Street	7,826	12,113	45	4,288	1.1%
	2nd Street to 5th Street	7,193	10,414	45	3,221	1.4%
	5th Street to Baseline Street	7,193	12,301	45	5,108	0.9%
	Baseline Street to SR-259	6,617	9,775	45	3,158	1.4%

Table 4.15-13 Project Fair Share Freeway Mainline Evening Peak Hour (continued)

Freeway	Segment Limits	Existing Traffic	2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic
I-215 SB	SR-259 to Baseline Street	3,690	6,064	29	2,374	1.2%
	Baseline Street to 5th Street	4,011	6,728	29	2,717	1.1%
	5th Street to 2nd Street	4,011	6,246	29	2,235	1.3%
	2nd Street to Mill Street	4,363	6,770	29	2,407	1.2%
	Mill Street to Inland Center Drive	4,332	5,719	29	1,388	2.1%
	Inland Center Drive to Auto Center Drive	4,492	6,164	29	1,672	1.7%
	Auto Center Drive to I-10 Freeway	4,973	7,083	29	2,109	1.4%
	I-10 Freeway to Mount Vernon Avenue	5,496	7,398	29	1,902	1.5%
	Mount Vernon Avenue to Barton Road	5,073	6,291	29	1,218	2.4%

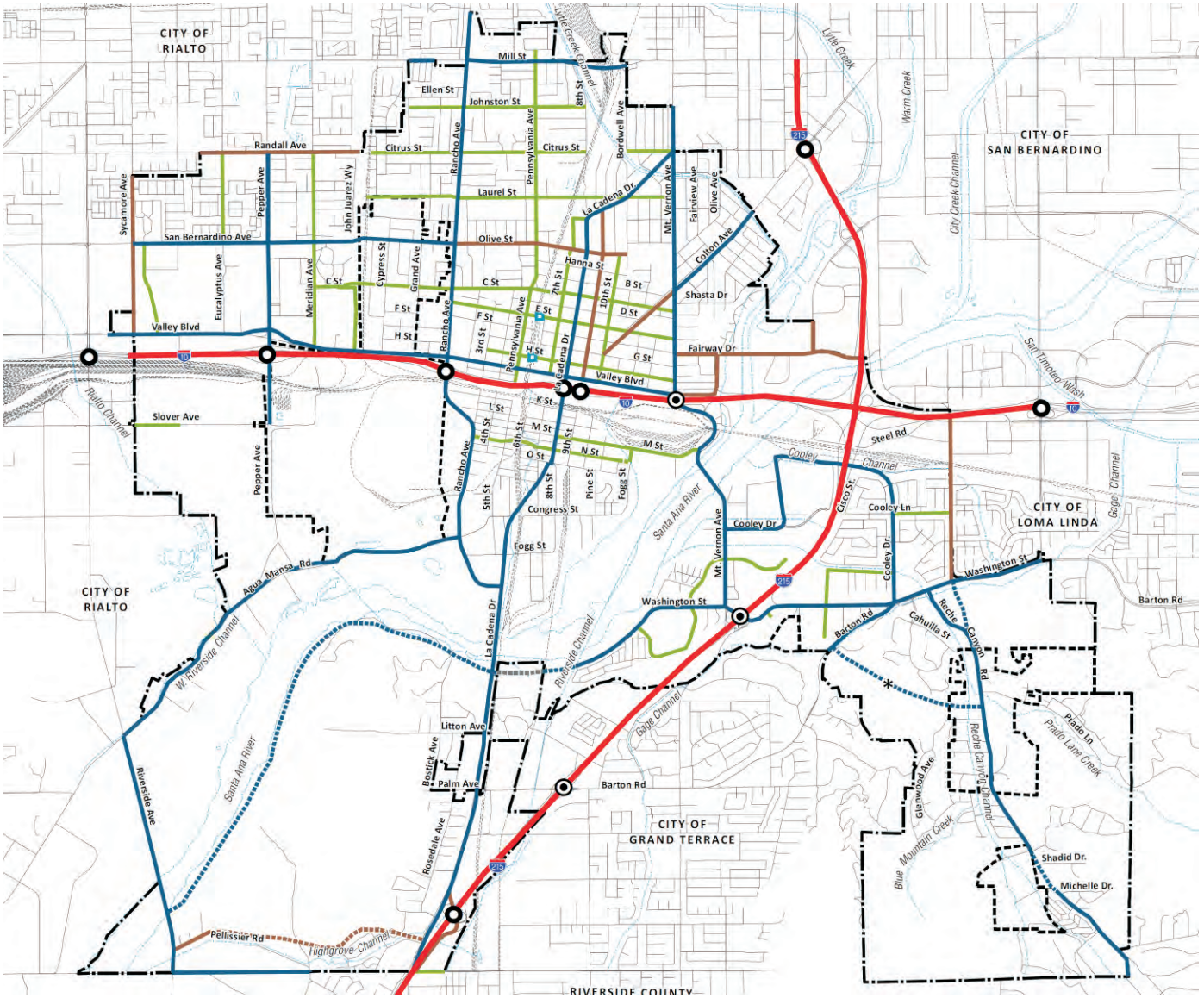
Source: CHCCSP TIA Table 21, May 2014, (EIR Appendix I)



The Altum Group

Study Area Intersections and Reference Numbers
CHCCSP Environmental Impact Report

Exhibit 4.15-1



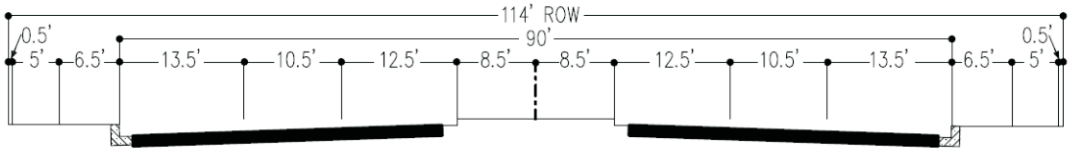
Source: City of Colton, 2012

Not to Scale

The Altum Group

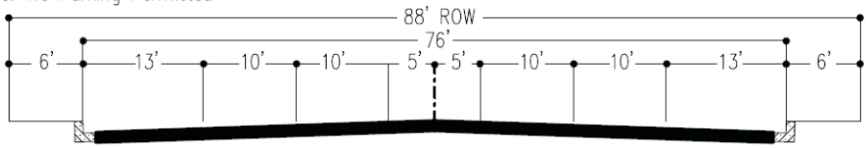
City of Colton General Plan Mobility Element
CHCCSP Environmental Impact Report

Exhibit 4.15-2



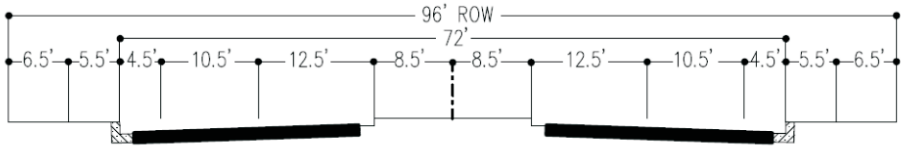
Note: No Parking Permitted

1a



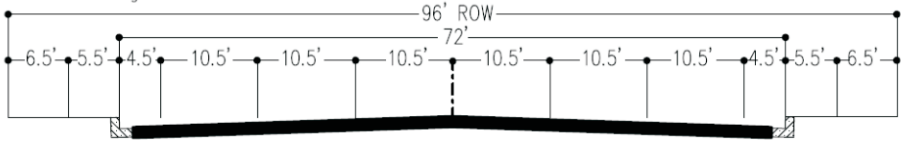
1

Notes: (1) No Parking Permitted
(2) The Area Designated as a Public Utility Easement (or Public Access Easement Shall be Obtained as Deemed Necessary by tbe City Engineer.



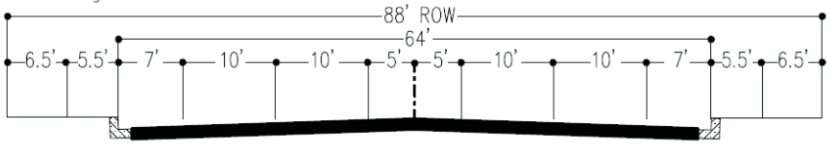
Note: No Parking Permitted

2a



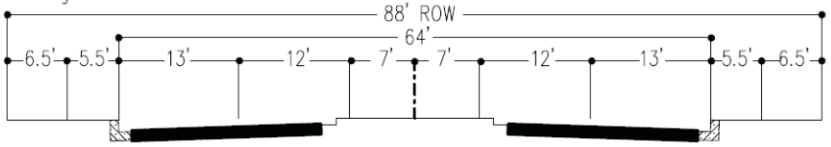
Note: No Parking Permitted

2a



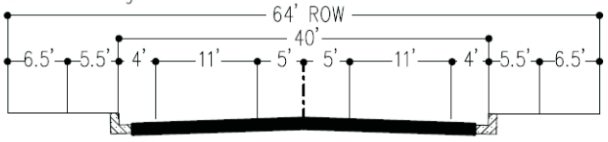
Note: Parking Permitted

2



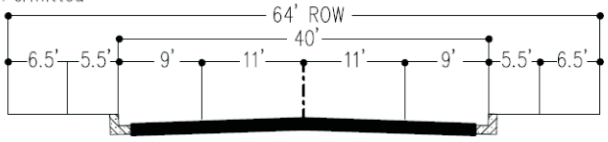
Note: Add 8' to ROW for Parking

2



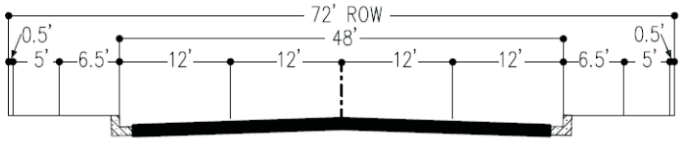
Note: No Parking Permitted

3



Note: Parking Permitted

3



Note: Parking Permitted

4

Source: City of Colton, 2012

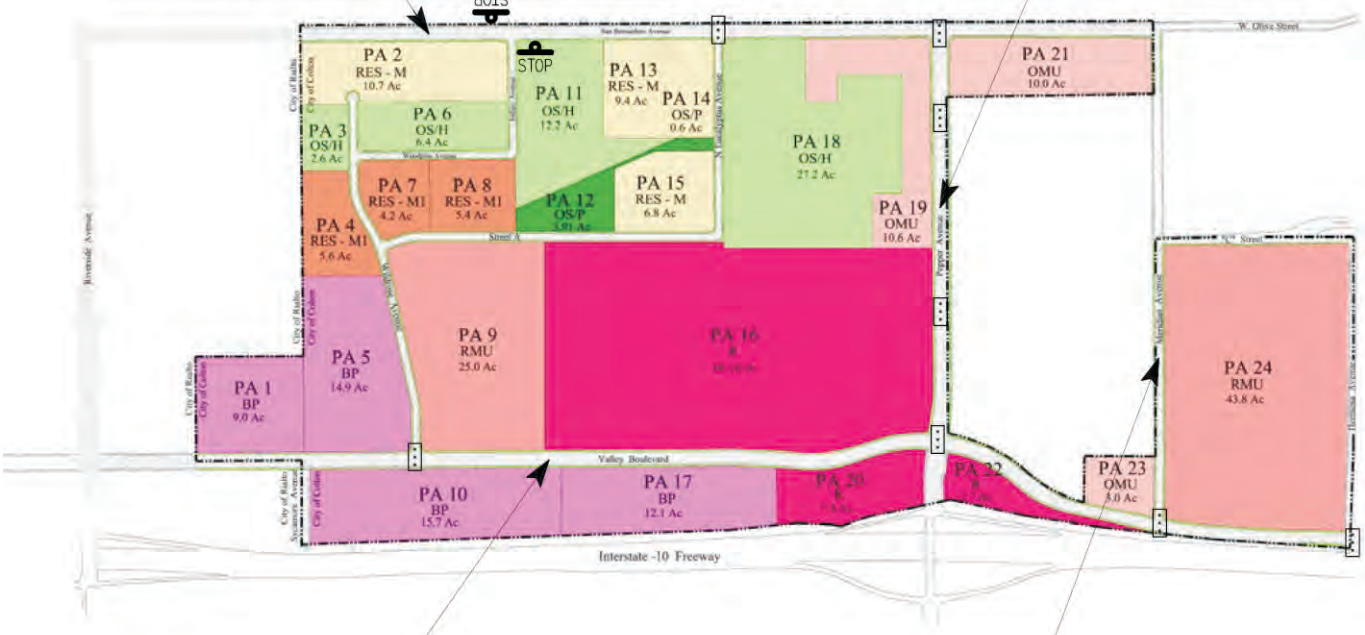
The Altum Group

City of Colton Roadway Mobility Element Cross-Sections
CHCCSP Environmental Impact Report

Exhibit 4.15-3

Construct San Bernardino Avenue adjacent to the project from the project west boundary to Meridian Street at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.

Construct Pepper Avenue adjacent to the project from San Bernardino Avenue to the projects south boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.



Construct Valley Boulevard Avenue adjacent to the project from the project west boundary to the project est boundary at its ultimate half-section width as a Major Arterial including landscaping and parkway improvements in conjunction with development.

Construct Meridian Avenue adjacent to the project from the north project boundary to Valley Boulevard at its ultimate half-section width as a Collector Street including landscaping and parkway improvements in conjunction with development.

Legend

= Traffic Signal

STOP = Stop Sign

The project site should provide sufficient parking spaces to meet City of Colton parking code requirements in order to service on-site parking demand.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Colton standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

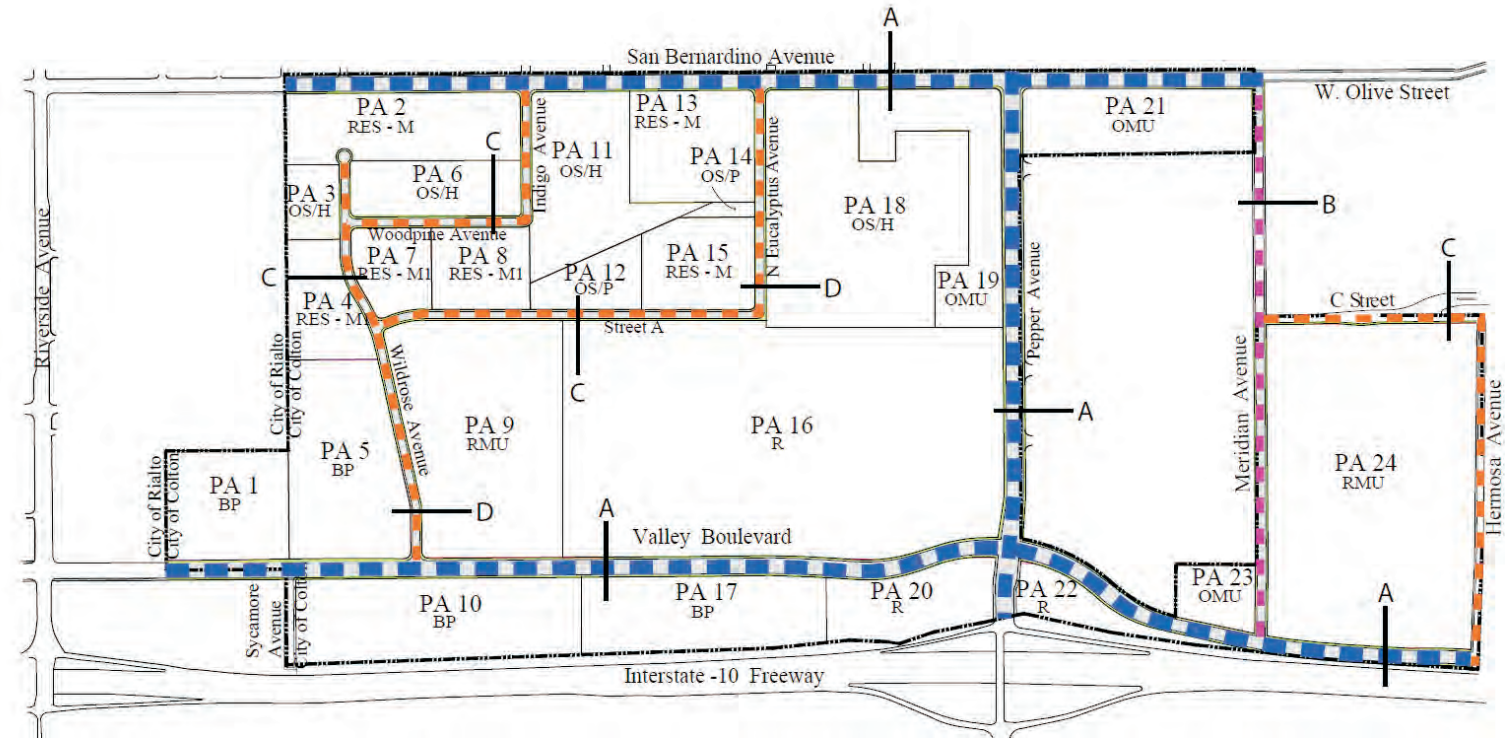
As is the case for any roadway design, the City of Colton should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

N
W E
S

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Circulation Recommendations
CHCCSP Environmental Impact Report

Exhibit 4.15-4



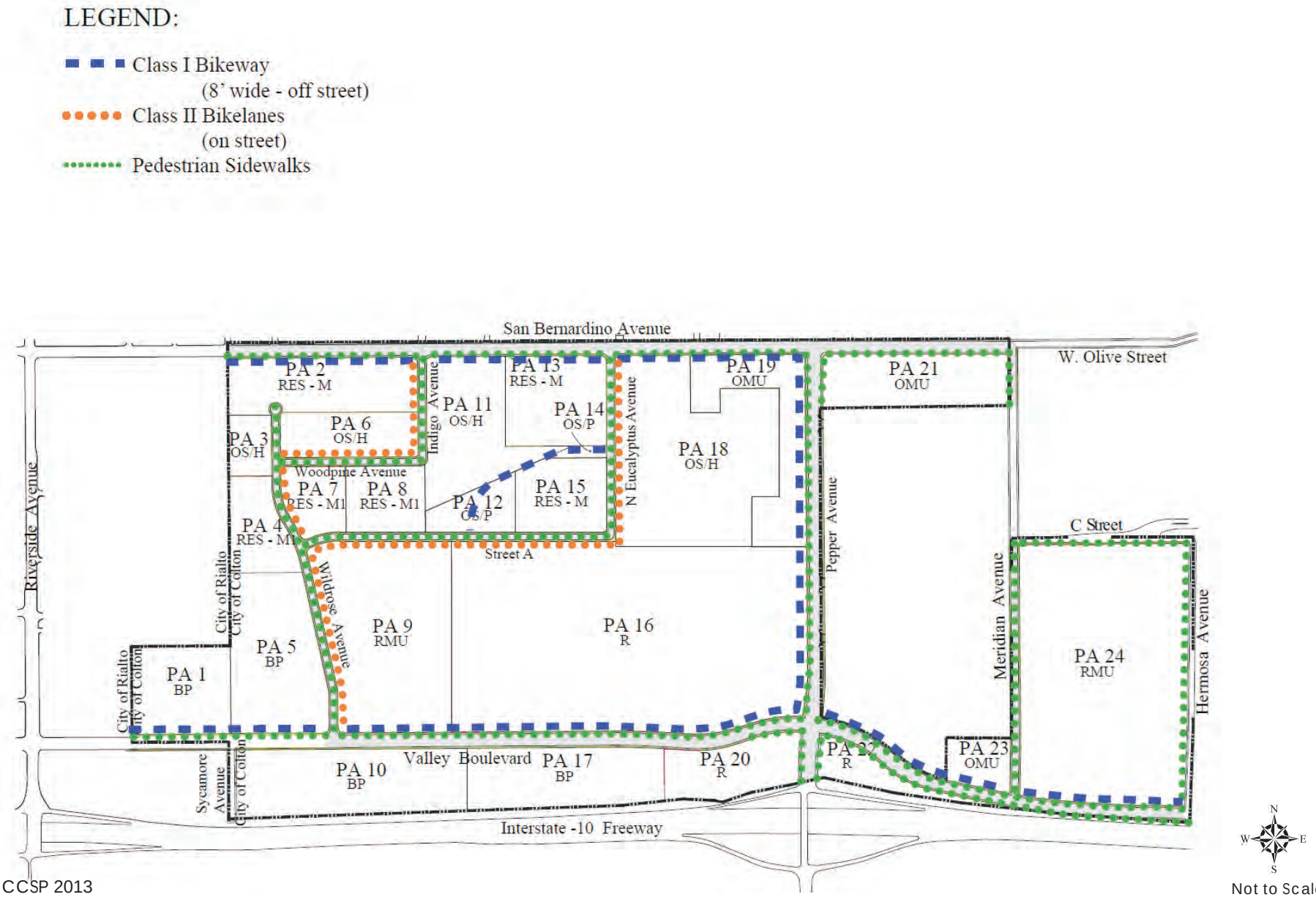
Source: CHCCSP 2013

Not to Scale

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CHCCSP Circulation Plan
CHCCSP Environmental Impact Report

Exhibit 4.15-5



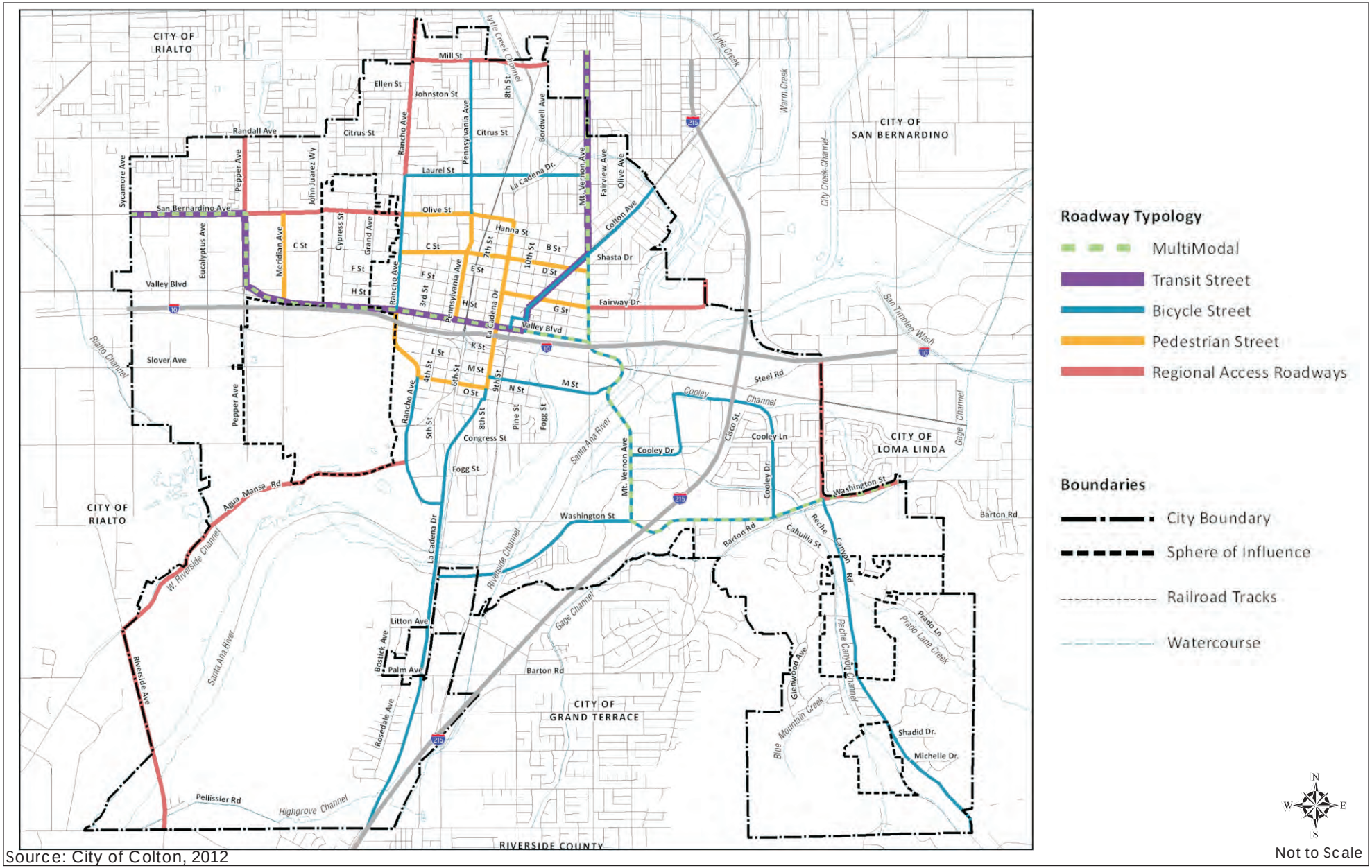
Source: CHCCSP 2013

Not to Scale

The Altum Group

Bike Lane and Sidewalk Master Plan
CHCCSP Environmental Impact Report

Exhibit 4.15-6



Source: City of Colton, 2012

Not to Scale

The Altum Group

City of Colton General Plan Complete Streets
CHCCSP Environmental Impact Report

Exhibit 4.15-7

4.16.1 Introduction

This section describes the existing setting for utility systems and potential effects from project implementation in the project area and vicinity. These include: Water Supply, Wastewater Collection and Treatment, Storm Drains, Solid Waste Disposal and Diversion, and Electricity and Natural Gas. Descriptions and analysis in this section are based on information contained in *Water Facilities Feasibility Study for the City of Colton Super Block Development*, prepared by Engineering Resources of Southern California, Inc, June 2008; *Water Supply Assessment for the City of Colton West Valley Specific Plan Project,* August 2008, prepared by Krieger & Stewart, Inc.; and *West Valley Water District 2006 Urban Water Management Plan*. The General Plan Update EIR (2013) was also utilized. The Preliminary Hydrology Study is included in the EIR in Appendix G, and the Water Supply Assessments are included in Appendix J of the EIR.

4.16.2 Environmental Setting

4.16.2.1 Regulatory Framework

State

Senate Bill No. 610 and CEQA Guidelines Section 15155

SB 610 requires that a local land use authority consult with the local water purveyor to prepare or obtain a water supply assessment (WSA), prior to completing an environmental impact assessment for a specified "water demand" project, defined here. Section 15155 of the CEQA Guidelines was added to directly incorporate these water code provisions into the CEQA process. Both the City of Colton Water Department and the West Valley Water District were consulted as part of the preparation of the EIR for the CHCCSP.

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the

amount of water required by a 500 dwelling unit project.

Key provisions that must be addressed in a WSA include a description of past and existing water supplies, and rights and groundwater extraction information including identification of basins, adjudication rights, and overdrafting status. Should the WSA determine that insufficient supplies will be available to serve a project the water purveyor must indicate how it will meet the demand of the new project. Should additional supplies be unavailable to meet project demand then the approving agency must include that determination in its project findings.

Senate Bill No. 221

Senate Bill No. 221 prohibits approval of a tentative map, or a parcel map for which a tentative map was not required, or a development agreement for subdivisions of more than 500 dwelling units unless the legislative body of a city or county provides written verification from the applicable public water system that a sufficient water supply is defined as "the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including, but not limited to, agriculture and industrial uses."

The written verification of the public water system's ability or inability to provide a sufficient water supply to meet the projected demands from the proposed subdivision must be supported by substantial evidence, which may include, but is not limited to, any of the following:

- The most recently adopted urban water management plan;
- A WSA that was completed pursuant to Part 2.10 commencing with Section 10910 of Division 6 of the Water Code; or
- Other information relating to the sufficiency of the water supply that contains analytical information substantially similar to the assessment required by Section 10635 of the Water Code.

If a water supply includes ground water, the public water system must also evaluate, based on substantial evidence, the extent to which it or the landowner has the right to extract the additional ground water to supply the proposed subdivision.

Water Conservation in Landscaping Act

Section 65591 et. al of the Government Code requires all local jurisdictions to adopt a water efficient landscape ordinance. The ordinance is to address water conservation through appropriate use and grouping of plants based on environmental conditions, water budgeting to maximize irrigation efficiency, storm water retention, and automatic irrigation systems. Failure to adopt a water efficiency ordinance requires a local jurisdiction to enforce the provisions of

the State's model water efficiency ordinance. In 2009, the Department of Water Resources (DWR) updated the Model Water Efficient Landscape Ordinance pursuant to amendments to the 1991 Act. These amendments and the new model ordinance went into effect on January 1, 2010. The City of Colton has not adopted a water efficient landscape ordinance and therefore, is subject to the provisions of the State's model ordinance.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code §§ 10610-10656) requires that all urban water suppliers prepare urban water management plans (UWMP) and update them every five years. The 2010 San Bernardino Valley Regional UWMP serves eight retail water purveyors, including the City of Colton Water Department, San Bernardino Municipal Water Department, and West Valley Water District. These three retail water purveyors service the majority of the planning area under the San Bernardino Valley Regional UWMP. The UWMP provides a summary of anticipated supplies and demands for the years 2010 to 2035.

Waste Discharge Requirements

Wastewater Discharge Requirements (WDRs) are issued to facilities discharging wastewater directly into receiving surface waters. Such facilities are required to be permitted whether individually or under a general permit. In the City of Colton, the Colton Wastewater Treatment Facility, and the Regional Tertiary Treatment Rapid Infiltration and Extraction Facility (RIX) operated jointly by the City of Colton and City of San Bernardino Water Departments are both subject to WDRs. In addition to discharge requirements, WDRs also establish wastewater treatment requirements. Treatment requirement orders regulate operations of a facility by limiting constituents in wastewater effluent, setting prohibitions on certain operations and activities, establishing specifications for facility design and maintenance, and provisions for reporting and monitoring.

Local wastewater and storm drain systems connections to the City's water and sewer system are generally regulated by Title 13 (Utilities) of the Municipal Code.

- Chapter 13.04 (Water Rates) establishes water service connection and user fees for the Colton Water District.
- Chapter 13.08 (Wastewater System) establishes limits and prohibitions on discharges to the City's sewer system and establishes a permitting process for connection to the sewer system.
- Chapter 13.16 (Sewer Service Charges) establishes user fees to support the operation, maintenance, expansion, and upgrade of the wastewater collection and treatment system.

Title 14 (Storm Drains and Floodplain Management) regulates permitted and illicit connections to the City's storm drain system as part of the implementation of the City's National Pollution Discharge Elimination System (NPDES) permit. Additional information regarding water quality standards can be found in Section 4.9, *Hydrology and Water Quality*.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; establish a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. More recently, the State has set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste by 2020. Instead of focusing primarily on local diversion, the law calls for the State and the Department of Resources Recycling and Recovery (CalRecycle) to take a statewide approach to decreasing California's reliance on landfills. CalRecycle has been tasked by the Legislature to examine how extensions of existing efforts, as well as new strategies, can be combined to reach that policy goal (http://www.calrecycle.ca.gov/75Percent/).

San Bernardino County Integrated Waste Management Plan

Under the State's Integrated Waste Management Act, the County of San Bernardino has prepared a Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The CIWMP addresses source reduction and recycling, household hazardous wastes, and non-disposal facilities such as transfer stations, material recovery facilities, and composting facilities. The goals and policies that guide facilities siting and other features of the Countywide Siting Element are as follows:

- Comply with regulations and standards
- Minimize environmental impacts and nuisances
- Eliminate known disposal of Household Hazardous Wastes at landfills
- Ensure long term disposal capacity
- Maximize cost-effectiveness and convenience
- Promote community awareness
- Consider regional approaches that are mutually convenient and beneficial
- Prevent solid waste facilities within incompatible land use areas
- Protect existing facilities from encroachment of incompatible land uses

- Maintain an integrated waste management system based on the AB 939 waste management hierarchy

Since 1996, the County has worked to consolidate landfills as part of its strategic plan. The County has consolidated active landfills from 17 to six with an ultimate goal of operating only five facilities. Therefore, no future landfills are currently planned, although Landers, Colton, and San Timoteo landfills have been identified as candidates for potential expansion.

The CIWMP is designed to reach the State's 50 percent source reduction mandate by setting goals and policies profiling the County's current solid waste stream and strategies for continued waste reduction. Cities within the County are required to implement their own integrated solid waste management planning, implementation, monitoring, public information, budgeting and enforcement in coordination with the County.

City of Colton Reduction and Recycling Element

The City's Source Reduction and Recycling Element is the primary planning mechanism for solid waste diversion. This document identifies strategies for meeting the mandated 50 percent diversion rate. The source reduction component of the plan indentifies methods such as use of reusable items as opposed to disposable items to remove products from the waste stream. The four categories of source reduction activities are education/technical assistance, rate structure modifications, economic incentives, and regulatory measures. The recycling component of the plan identifies existing and proposed programs to increase recycling efforts. Other items addressed in the plan include composting and special wastes.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to assure California utility customers safe, reliable utility service at reasonable rates, protect utility customers from fraud, and promote a healthy California economy.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24 of the California Administrative Code contains the California Building Standards, including the California Plumbing Code (Part 5), which promotes water conservation. Title 20 addresses Public Utilities and Energy and includes appliance efficiency standards that promote water conservation. In addition, a number of State laws listed below require water-efficient plumbing fixtures in structures: Title 24, California Administrative Code, Sections 25352(i) and (j) address pipe insulation requirements, which can reduce water used before hot water

reaches equipment or fixtures. Insulation of water-heating systems is also required.

- Title 20, California Administrative Code, Section 1604(g) establishes efficiency standards that give the maximum flow rate of all new showerheads, lavatory faucets, sink faucets, and tub spout diverters. Title 20, California Administrative Code, Section 1606 prohibits the sale of fixtures that do not comply with established efficiency regulations.
- Health and Safety Code, Section 17921.3 requires low-flush toilets and urinals in virtually all buildings. Health and Safety Code, Section 116785 prohibits installation of residential water softening or conditioning appliances unless certain conditions are satisfied, and includes the requirement that water conservation devices on fixtures using softened or conditioned water be installed.

All new construction in the State of California is subject to the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code. These are prescriptive standards that establish maximum energy consumption levels for the heating and cooling of new buildings.

The utilization of alternative energy applications in development projects, while encouraged, is not generally required as a condition of approval. Such applications may include installation of photovoltaic solar panels or active solar water heating systems on both residential and non-residential projects, each of which serve to displace consumption of conventional energy sources (i.e., electricity and natural gas). Incentives, primarily in the form of State and federal tax credits, as well as reduced energy bills, provide a favorable basis for individual builders, property owners and occupants to install such alternative energy systems.

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and set a goal of reducing growth in electricity use by 478 gigawatt-hours per year (GWh/y) and growth in natural gas use by 8.8 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 163.2 GWh/y of electricity savings and 0.5 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

City of Colton General Plan

The City of Colton General Plan does not have a dedicated element to address Utilities and Infrastructure in detail. However, the General Plan EIR (2013) does evaluate future development in the City of Colton, including the CHCCSP project area.

City of Colton Municipal Code

Water

City of Colton Municipal Code 13.10.060 outlines the policy applied to the water supply systems. The ordinance requires the water supply be protected from contamination and cross-connection through the use of backflow prevention devices and the testing and maintenance of such devices.

Wastewater

City of Colton Municipal Code 13.08 200 series outlines the restrictions and prohibitions for discharge into the sewer system in the City of Colton. The 300 series outlines the permit procedures and the 400 series outlines the enforcement of standards, procedures, and statutes.

Storm Drains

City of Colton Municipal Code 14.02 outlines the general conditions and prohibitions related to storm drains in the City of Colton to include accidental discharge response. City of Colton Municipal Code 14.03 outlines the application of ordinances to residential and commercial land uses to include prohibitions, exemptions, permits and best management practices (BMPs). Construction requirements are covered in City of Colton Municipal Code 14.05.

4.16.2.1 Existing Conditions

Potable Water

City of Colton Water Department

The City of Colton and West Valley Water District (WVWD) currently provide water service to the CHCCSP project area. Colton's water supply is comprised entirely of groundwater extracted from the San Bernardino Basin Area (Bunker Hill Basin portion), the Rialto-Colton Basin, and the Riverside Basin (Riverside North Basin portion). Colton does not currently import water in order to meet the demands of its service area.

The City currently provides water service to the area east of Pepper Avenue and West Valley Water District currently provides water service to the area west of Pepper Avenue. Exhibit 4.16-1 *Conceptual Master Water Plan*, shows the existing and proposed location and sizes of the water distribution system within the CHCCSP project area. Water is supplied to the project area for domestic consumption, fire protection, and irrigation.

The Colton Water Department's existing potable water system consists of 15 wells, five main booster pumping plants, nine water storage reservoirs, two pressure reducing facilities, and over 120 miles of transmission and distribution pipelines. All water provided by the Water District is pumped from the Rialto-Colton, Bunker Hill, and North Riverside groundwater basins. The Water Department also has emergency connections with the City of San Bernardino, the Riverside Highland Water Company, West Valley Water District, and the City of Riverside that can be activated, if necessary.

According to the San Bernardino Valley Regional Urban Water Management Plan prepared in 2011, Colton Water Department delivered 10,402 acre-feet (AF) in 2009 to residential, commercial, and other uses. Total projected water use in 2015 is approximately 12,840 AF and 11,555 AF, with an assumption of 10 percent savings with the implementation of water conservation measures. This statistic is for the whole service area rather than the CHCCSP project area, however, it is included here in order to evaluate the potential impacts associated with new development projects in the CHCCSP project area. Table 4.16-1, *Estimated Water Deliveries*, shows actual and projected water deliveries by category between years 2009 and 2035.

Planned Water System Improvement Projects

The Colton Water Department 1998 Water Facilities Master Plan establishes capital improvements projects for well pumping plants, storage facilities, booster pumping plants, and pipelines through 2020. To date, the City has drilled six wells (four with pumping plants), performed remedial work on the DOMECQ No.1 Reservoir, and replaced approximately 32,057 linear feet (LF) of pipeline. This included completion of a 24-inch diameter waterline on North Eighth Street between Mill Street and Citrus Street and on Citrus Street between North Eighth Street and Pennsylvania Avenue to improve capacity and meet maximum day demand and fire flow to the western portion of the City. Future projects include the drilling of six new wells and pumping plants (including the completion of Well 30 and Well 31 pumping plants) and construction of reservoirs in the Western, Central, and Reche Canyon III pressure zones, with additional remedial work throughout the City. Booster plant replacement and expansion projects are also planned, along with over 80,000 LF of new pipelines to be installed.

West Valley Water District (WVWD)

The WVWD obtains water from surface flows, the State Water Project and groundwater basins. Surface water comes from canyons on the east side of the San Gabriel Mountains, including the North Fork, Middle Fork, and South Fork of Lytle Creek. It also receives imported water supplies from the State Water Project and from 25 wells in five different groundwater basins. All five of the groundwater basins have been adjudicated and are managed.

Table 4.16-1 Estimated Water Deliveries

Water Use in Acre Feet per Year (AFY)						
					Totals	
					Without	With
Year	Residential	Commercial/ Industrial	Landscape	Other	Conservation	
2009	5,901	4,469	0	32	10,402	N/A
2015	7,133	5,367	66	274	12,840	11,555
2020	7,658	5,761	71	294	13,784	11,027
2025	8,100	5,761	71	294	14,226	11,381
2030	8,567	6,646	80	329	15,422	12,388
2035	9,062	6,818	84	348	16,312	13,050

Source: San Bernardino Valley Municipal Water District, 2010 San Bernardino Valley Regional Urban Water Management Plan, 2011.

The different water supply sources in Table 4.16-2, *Annual Water Supply for West Valley Water District*, show ranges for annual water supply that WVWD can reasonably expect from their water rights and its ability to utilize these water supply sources.

WVWD has 25 production wells with a total pumping capacity of 29,541 gallons per minute (gpm) or production capacity of 26.5 mgd (pumping 16 hours per day). Basin levels rise and fall depending on whether annual rainfall is above average or below average.

Wastewater Treatment and Reclamation

The City owns and operates the Colton Wastewater Reclamation Facility (CWRF), a secondary wastewater treatment plant located at 1201 South Rancho Avenue. The CWRF serves a population of approximately 65,687 from Colton, Grand Terrace, and unincorporated San Bernardino County. The facility treats an average daily flow of 5.6 million gallons per day (MGD). The CWRF is designed to treat a maximum of 10.4 MGD. Wastewater treatment requirements for the CWRF are established by the Santa Ana Regional Water Quality Control Board (RWQCB) pursuant to Order NO. R8-2005-0075 (NPDES No. CA 0105236).

Secondary treated wastewater from the CWRF is directed to the jointly owned Colton/San Bernardino rapid infiltration-extraction (RIX) facility for tertiary treatment and disinfection prior to being discharged into the Santa Ana River. This facility is located on Agua Mansa Road west of the CWRF. The RIX facility is designed to treat 40 MGD of influent and according to the website, the facility currently receives approximately 33 MGD (https://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/). Wastewater treatment requirements for the RIX facility are established by RWQCB Order No. R8-2006- 0052 (NPDES No. CA8000304). Under specific wet weather conditions, the CWRF may bypass the RIX facility and discharge directly into the Santa Ana River, but only if the effluent discharge is diluted 20:1 when entering the river at the point of discharge.

Table 4.16-2 Annual Water Supply for West Valley Water District

Source	Maximum When Available Water Right	Range of Production Potential in 2025 Approximate Max. to Min. (AF/Yr)
Lytle Creek Surface Water[1]		
Existing	5.09 cfs	3,500 to 2,000
City of San Bernardino	3.00 cfs	2,000 to 1,000
State Project Water (purchased)[2]	No Limit	23,000
Groundwater		
Lytle Creek Basin[3]	12,105 gpm	10,000 to 5,000
Rialto Basin Maximum/ Minimum[4]	No Limit/ 3,067 AF/yr	10,000 to 3,067
Chino Basin	No Limit	3,000 to 1,000
North Riverside Basin	No Limit	5,000 to 3,000
Bunker Hill Basin	No Limit	
Existing Wells		6,000 to 3,000
Future Wells		10,000 to 6,000
SBVMWD/Baseline Feeder[5]		10,000 to 6,000
Total		**82,500 to 53,067**

Source: West Valley Water District Urban Water Management Plan, 2006.

Notes:

1. The amount of purchased SPW depends on the availability of Lytle Creek Water and the combined treatment capacity of the existing Oliver P. Roemer WWF, the proposed expansion and the North Villages WFF. The combined total for surface water treatment capacity is projected to be 26.4 mgd during normal conditions. Of the 26.4 mgd The City of Rialto owns 1.5 mgd capacity in the Oliver P. Roemer WFF.
2. The number shown for purchased SPW reflects the amount of water that can be utilized at the Districts Water Filtration Facilities in the year 2025. The state water contractor (SBVMWD) has an 82% reliability of receiving 39,000 AF/Yr of SPW. The Districts minimum projected share of that is 7,000 AF/Yr. During a drought that reduces the available SPW allotment for SBVMWD, all of the water agencies receiving water from them will share in the deficit of the water budget on a percentage basis.
3. During extended drought periods, well production in Lytle Basin is projected to be 50% of normal conditions or less.
4. The Rialto Groundwater Basin has perchlorate contamination problems that severely limit current production and is used mainly for standby purposes only.
5. The carrying capacity of the Baseline Feeder is limited to 14,000 gpm for WVWD. 1991 Agreement between District and SBVMWD.

The RIX facility provides tertiary treatment and discharges the treated water into the Santa Ana River. The RIX facility releases 16,000 af/yr in an agreement with SBVMWD to meet downstream obligations to Orange County. Currently, there is no infrastructure within the City to reuse tertiary water for irrigation or other recycled uses. According to the *Upper Santa Ana Watershed Integrated Regional Water Management Plan (November 2007)*, San Bernardino Valley Municipal Water District (SBVMWD) has previously determined that the use of recycled water from the RIX facility to offset water demands within its service area is not feasible because the RIX facility is located at an elevation and distance from SBVMWD's service area that makes it economically impractical to utilize recycled water. The City of Colton is one of the

cities within the SBVMWD's service area.

Conservation

Conservation accomplishments have included a revised water rate structure, public information and education, fully metered water system (new commercial and industrial developments are required to have separate meters for landscape irrigation), meter testing and replacement program, public information displays and programs, comparative billing system, pressure management, telemetry system, leak detection and repair, showerhead replacement program, and a water waste ordinance.

The City has considered a number of water management programs for inclusion into its water conservation program. Said programs have included retrofit kits for showers and toilets; xeriscape regulations for new commercial properties; water reclamation; exchanges or transfer of water; system pressure and peak demand management; meter retrofitting; incentives to alter water practices; public information and education programs to promote water use; and prices, rate structures, and regulations.

Planned Wastewater Treatment and Distribution Improvements

The City of Colton 2009 Sewer System Management Plan describes measures to provide effective management, operation, and maintenance of sanitary sewer systems. They will also detail spill response plans to establish standard procedures for proper and effective spill response and reporting. The Management Plan references the City's most recent Wastewater System Master Plan that was prepared in 1997. This plan evaluates the capability of the City's wastewater collection system and pumping system to provide service through the year 2015.

One of the findings contained in the Master Plan concluded that a significant portion of the City's sewer collection system infrastructure was constructed around 1910 and that an estimated $1.7 million per year over the next ninety years would be needed to assure system reliability. The City has increased line maintenance, CCTV activities, lift station maintenance, and other predictive and preventative maintenance steps to improve system reliability until funding is available for additional capital improvements. Other recommended projects include collection pipelines rehabilitation and pumping station improvements. To date, the City has completed pump station and monitoring improvement projects as part of the Wastewater System Master Plan. The City is in the process of annexing the Southwest 44 facilities; it, however, does not have any plans for other wastewater system improvements in the near future.

Storm Drain System

See Section 4.9, Hydrology and Water Quality for the evaluation of the CHCCSP project area.

Solid Waste

Solid waste collection including residential, commercial, and recycling services are provided by Colton Disposal (a division of Republic Services). Curbside residential services include pickup of non-recyclable, recyclable, and yard wastes. Commercial customers may be provided with a three cubic yard (CY) container or more to handle operational wastes. Colton Disposal also offers 15 CY and 30 CY containers for larger disposal needs, such as those associated with construction projects. Compactors and balers are also available for businesses using large quantities of cardboard, such as supermarkets and large retailers. Commercial solid waste is sorted by Colton Disposal at its processing facility where recyclables are removed from the waste stream prior to being transported to a landfill.

Energy

Electricity

The City of Colton Electric Utility (CEU) provides electricity to residential, commercial and industrial customers throughout the City. A variety of power resources provide electricity to CEU, including coal fired power from San Juan Generating Station in New Mexico (scheduled to shutdown in 2017), natural gas generated power from the Magnolia Power Plant in Burbank California, and the Agua Mansa Generating Plant in Colton. The natural gas is provided by Colton's ownership in the Barnett Natural Gas Reserve project in Texas, the Pinedale Natural Gas Reserves project in Wyoming and a long-term natural gas power purchase agreement. Nuclear power comes from the Palo Verde Power Plant in Arizona. Hydroelectric power comes from the Hoover Dam Power plant. Wind energy is supplied through the High Winds Energy Project in Solana County, California, as well as new solar power projects in Kern County and locally. CEU is investing in renewable energy resources such as solar, wind, hydro, landfill gases and geothermal to meet future electricity needs.

CEU will supply electricity to future projects in the CHCCSP project area. Connections will be made at the most convenient existing locations and extending through the project area during the phased construction of the development.

According to the CEU's website, the annual system peak in Fiscal Year 2010-2011 was 85.5 MW and in Fiscal Year 2011-2012, 82.3 MW. Table 4.16-3, *Electric Utility Data for the City of Colton*, shows usage by customer class during the last two year in which the CEU has compiled data.

Table 4.16-3 Electric Utility Data for the City of Colton

Average Number of Customers by Class			
Class	**Fiscal Year 2010-2011**	**Fiscal Year 2011-2012**	**% Change**
Commercial	2,436	2,464	1.1%
Industrial	73	73	0%
Municipal	241	242	0.4%
Residential	16,055	16,055	0%
Total	**18,805**	**18,834**	**0.1%**
Consumption by Class (kWh)			
Commercial	64,786,188	64,008,580	-1.2%
Industrial	179,318,766	182,273,799	1.6%
Municipal	6,085,696	6,152,266	-1.1%
Residential	89,825,207	92,649,465	3.1%
Total	**340,015,857**	**345,084,110**	**1.5 %**
Annual System Peak			
Annual System Peak	**85.8 MW**	**82.3 MW**	**4.3 %**

Source: City of Colton Electric Utility Department Website, accessed March 17, 2014
http://www.ci.colton.ca.us/index.aspx?NID=316

4.16.3 Environmental Impacts and Mitigation Measures

4.16.3.1 Thresholds of Significance

According to the CEQA Guidelines Appendix G Environmental Checklist and the City's guidelines for implementing CEQA, 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 RWQCB?
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?

h) Result in the unnecessary or wasteful use of energy?

4.16.3.2 Impact Analysis

a) Exceed wastewater treatment requirements of the applicable RWQCB

The City-owned (CWRF) is a secondary wastewater treatment plant located at 1201 South Rancho Avenue. It treats an average daily flow of 5.6 million gallons per day (MGD) and has been designed to treat a maximum of 10.4 MGD. Wastewater treatment requirements for the CWRF are established by the Santa Ana Regional Water Quality Control Board (RWQCB) pursuant to Order NO. R8-2005-0075 (NPDES No. CA 0105236).

Secondary treated wastewater from the CWRF is directed to the jointly owned Colton/San Bernardino rapid infiltration-extraction (RIX) facility for tertiary treatment and disinfection prior to being discharged into the Santa Ana River. This facility is located on Agua Mansa Road west of the CWRF. The RIX facility is designed to treat 40 MGD of influent and according to the website, the facility currently receives approximately 33 MGD (https://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/). Wastewater treatment requirements for the RIX facility are established by RWQCB Order No. R8-2006- 0052 (NPDES No. CA8000304). A search of the Santa Ana Regional Water Quality Control Board website for any violation of WDRs for either facility showed that no violations have been issued.

Development in the project area under the CHCCSP is similar in size and land use as what could be developed under the adopted WVSP (1996), with the exception of the proposed 275 residential units. In developing the master plan for the wastewater treatment facilities, the City of Colton considered future development within the City's corporate boundaries as well as in the other portions of the CWRF service area and based its projected future capacity on this scenario which included future development in the project area.

Development in the CHCCSP project area is included in the City's projections for the wastewater treatment plants because the project area is part of the larger approved WVSP. Buildout under the WVSP includes 163 acres of Business Industrial Park uses, 63 acres of Regional Retail uses, 23 acres of Hospitality Retail/Medical Support, and 89 acres of Open Space (golf course, park, and cemetery). The WVSP assumed a Floor Area Ratio of .25, so that at buildout approximately of 2.7 million square feet of non-residential uses could be developed. Under the proposed CHCCSP, a total of 275 dwelling units and approximately 2.43 million square feet of non-residential uses could be developed.

The City's Municipal Code requires incremental expansion of wastewater treatment facilities

based on new development through the collection of Development Impact Fees. This ensures that adequate funding is available to meet future facilities needs, should expansion be necessary. As part of the City's routine development review program, as development in the project area progresses, the City Engineering Department will routinely compare proposed land uses with existing and proposed facilities and determine if any modifications are required to ensure wastewater quantities do not exceed infrastructure capacity. Based on the existing capacity, the future anticipated demand for wastewater treatment services as new development projects come on line, and the collection of Development Impact Fees, impacts associated with wastewater treatment requirements will be less than significant.

b, d and e) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities

The CHCCSP calls for 275 dwelling units, 76.2 acres of Retail, 68.8 acres of RMU, 23.6 acres of OMU, 51.7 acres of BP uses, and a 4.5 acre neighborhood park. In addition, other uses that would not consume potable water or generate wastewater include Open Space/Habitat and Roads. Table 4.16-4, *Water Consumption and Wastewater Generation in the CHCCSP Project Area*, shows the generation consumption and generation rates and daily water consumption and wastewater generation at buildout in the CHCCSP project area. The average family of four can use 400 gallons of water every day, and, on average, approximately 70 percent of that water is used indoors

Table 4.16-4 Water Consumption and Wastewater Generation in the CHCCSP Project Area

Land Use	Size[1]	Consumption/ Generation Rates (GPD)		Water Consumption (GPD)	Wastewater Discharge (GPD)[2]
		Water	Wastewater		
Residential	275 du	400 per unit	300 per unit	110,000	82,500
Retail	79.2 acres	75/1,000 SF	60/1,000 SF	64,687	51,750
RMU	68.8 acres	75/1,000 SF	60/1,000 SF	56,190	44,952
OMU	23.6 acres	75/1,000 SF	60/1,000 SF	19,275	15,420
BP	51.7 acres	67.5/1,000 SF	60/1,000 SF	38,002	30,402
Park[3,4]	4.5 acres	N/A	N/A	3,650	--
			TOTAL	**291,804**	**225,024**

Source: Rates interpolated from County of San Luis Obispo, Development Impact Fee Study, 2013.
Water rates for park use from Kim Rhodes, ASLA, Personal Communication March 18, 2014.
Water rate for residential use from USEPA website http://www.epa.gov/WaterSense/pubs/indoor.html

Notes:

1. Assumes a Floor Area Ratio of 0.25 for all non-residential land uses.
2. Assumes 75 percent of water usage becomes wastewater, with the remaining 25 percent going to landscaping, or other uses where water is not directed into a sewer system.
3. Assumes landscaped area is 50% turf and 50% shrubs, not including parking lot sidewalks and other hardscape.
4. Wastewater generated in the neighborhood park would be limited to incidental restroom use by visitors.

Water Treatment

City of Colton Water Department

The City of Colton owns, operates and maintains a water treatment system and a wastewater collection, pumping and treatment system and will be providing the water service and wastewater collection in the CHCCSP project area.

The Colton Water Department provides water service to the CHCCSP project area, east of Pepper Avenue for domestic consumption, fire protection, and irrigation. Colton's water supply is comprised entirely of groundwater extracted from the San Bernardino Basin Area (Bunker Hill Basin portion), the Rialto-Colton Basin, and the Riverside Basin (Riverside North Basin portion). Colton does not currently import water in order to meet the demands of its service area. Therefore, the City's Water Department is responsible for water treatment. West of Pepper Avenue, the project area is served by the WVWD. Both water agencies operate a series of wells, booster pumping plants, water storage reservoirs, pressure reducing facilities, and transmission and distribution pipelines.

According to the General Plan Update Program EIR (2013), the Colton Water Department, has identified capital improvement projects for well pumping plants, storage facilities, booster pumping plants, and pipelines through Year 2020. To date, the City has drilled six wells (four with pumping plants), performed remedial work on the DOMECQ No.1 Reservoir, and replaced approximately 32,057 linear feet (LF) of pipeline. This included completion of a 24-inch diameter waterline on North Eighth Street between Mill Street and Citrus Street and on Citrus Street between North Eighth Street and Pennsylvania Avenue to improve capacity and meet maximum day demand and fire flow to the western portion of the City.

Future projects include the drilling of six new wells and pumping plants (including the completion of Well 30 and Well 31 pumping plants) and construction of reservoirs in the Western, Central, and Reche Canyon III pressure zones, with additional remedial work throughout the City. Booster plant replacement and expansion projects are also planned, along with over 80,000 LF of new pipelines to be installed. Future development in the CHCCSP project area has always been included in the City's planned growth and thus, is assumed in the Water Departments projection of future CIP needs. However, it is inherent in this evaluation that future development projects in the CHCCSP project area are subject to development impact fees for a number of CIP improvements, including adequate water supply and water treatment. The City may determine that the most efficient means to incorporate new development in the CHCCSP into the City's service areas is to create an Assessment District or other means to fund infrastructure improvements in the CHCCSP project area.

The Colton Water Department prepared a WSA in 2008 and updated it in 2014 to reflect the revisions to the specific plan. The Water Department found that there was a adequate water supply for the next 20 years to serve the City of Colton, including new uses in the CHCCSP project area.

West Valley Water District

Both the City of Colton and the WVWD have prepared Water Supply Assessments for the CHCCSP, and each of these included a discussion of the future infrastructure improvements that would be required to accommodate additional growth in the City. For example, the WVWD's Capital Improvement Program includes the WVWD Water Master Plan 2012, which recommends drilling new groundwater wells, rehabilitating and upgrading existing wells, expanding the Oliver O. Roemer WFF and construction of a new WFF. These recommendations to not apply specifically to the CHCCSP project area, but rather to the whole WVWD service area, of which the project area is a part. As a condition of approval, the WVWD WSA recommends that the project area be developed with a recycled water system that is physically separate from the potable water system (purple pipe).

The WVWD has verified that it has the water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed CHCCSP, with improvements outlined in its CIP plan and with water conservation measures required by Title 24 of the California Code of Regulations (Title 24 CCR).

Project Area Wastewater Conveyance

The conceptual sewer plan shown in Exhibit 4.16-2, *Master Sewer P*lan, shows the existing and proposed location and sizes of the wastewater collection system within the CHCCSP project area. Table 4.16-5, *Existing and Proposed Sewer Facilities in the Project Area*, shows the location and size of existing sewer facilities in the project area.

All proposed sewer lines within the CHCCSP project area are designed for placement within the proposed dedicated street rights-of-way; no additional rights-of-way are required to provide sewage collection within the project area. The project engineer for the CHCCSP has identified existing facilities as well as proposed new facilities to support land uses within new planning areas.

Table 4.16-5 Existing and Proposed Sewer Facilities in the Project Area

Location	Existing	Proposed
North South Streets		
Wildrose Avenue	12-inch	No new improvements
Eucalyptus Avenue	12-inch	Replace existing 12-inch line with new 8-inch line north of PA 16, 12-inch line to remain in place south to Valley Blvd
Pepper Avenue	12-inch	No new improvements
Meridian Avenue	8-inch	No new improvements
Indigo Avenue	8-inch	No new improvements
San Bernardino Avenue	10-inch tied into Wildrose Ave, Eucalyptus Ave, and Pepper Ave	No new improvements
East-West Streets		
Valley Blvd (west of Pepper)	12-inch	Abandon 12-inch line, replace with 8-inch line west of Wildrose Ave, 15-inch east of Wildrose Ave to app. 1,000 feet east of Pepper Ave.
Valley Blvd (east of Pepper)	15-inch	See above
Woodpine Avenue	8-inch	No new improvements
Future Street A	N/A	New 8-inch line to connect between Wildrose Avenue and Eucalyptus Avenue

Source: CHCCSP, March 2014, Figure 5-5 (EIR Appendix B).

c) Storm Drainage

The existing and proposed storm drain system is evaluated in Section 4.9, *Hydrology and Water Quality.*

f and g) Solid Waste

Solid waste would be generated by short-term construction activities and long-term operational activities. Each is discussed below.

Construction Waste Generation

Currently, approximately 40 percent of the project area is developed with urban uses including 59 acres of Open Space for the golf course (49 acres) and park (10 acres). Therefore, for the purposes of this analysis, 90 acres of developed area could be demolished and redeveloped with new uses. Using construction and demolition debris waste generation rates published by the U.S. Environmental Protection Agency (U.S. EPA), an estimate of the total construction and demolition debris generated by the proposed project is provided in Table 4.16-6, *Construction and Demolition Waste Generation*. Note that nonresidential and residential

construction activities were calculated separately because of differences in waste generation rates.

For demolition, a worse-case scenario, a Floor Area Ratio of 0.35 was assumed. Therefore, if all existing developed sites were redeveloped, demolition could result in the generation of 106,340 tons of demolition waste. The proposed project could also generate an additional 4,730 tons of construction waste for new nonresidential development and 903 tons of construction waste for residential development. The proposed project is estimated to generate 111,973 tons of construction and demolition debris. This is a conservative estimate assuming that existing structures on developed sites would be demolished. However, as discussed in Chapter 3, *Project Description*, the City is working with applicants for the adaptive reuse of three existing sites where the buildings will be remodeled rather than demolished.

Table 4.16-6 Construction and Demolition Waste Generation

Activity	Type	Waste Generation Rate	Square Footage	Total
Demolition	Nonresidential	155 pounds/square foot	3,705,065[1]	106,340 tons[3]
Construction	Nonresidential	3.89 pounds/square foot	2,431,737	4,730 tons
	Residential	4.38 pounds/square foot	412,500[2]	903 tons
Total				**111,973 tons**

Source: U.S. Environmental Protection Agency, 1998.

Notes:

1. Estimated based on aerial imagery analysis that approximately 40 percent of the project area or 149 acres is developed, including 59 acres of Open Space Golf Course and Park.
2. Estimated based on 1,500 SF residence x 275 DU
3. 1 ton = 2,000 pounds

However, because the project area is not controlled by one developer, and it is likely to take several years for all of the vacant or underutilized properties to be developed, the amount of demolition and construction debris (C&D) generated could be absorbed by the various C&D recycling facilities thus reducing the amount of this material disposed of in landfills. This material can be recycled or reused in a variety of ways. For example, wallboard made from gypsum, can be composted, while aggregate material can be crushed and uses as road base.

However, because 111,9 73 tons represents a significant amount of C&D, mitigation is proposed that would require future developers to implement C&D recycling to the maximum extent feasible. The implementation of mitigation measure USS-1 would reduce short-term solid waste generation substantially. Therefore, short-term construction impacts on landfill capacity would be less than significant.

Operational Waste Generation

Operational solid waste generation estimates for the CHCCSP project area are provided below in Table 4.16-6, *Operational Net Solid Waste Generation*. Waste generation calculations were derived from various municipalities that are listed in the California Integrated Waste Management Plan. This table accounts for the projected amount of total tonnage of waste to be generated by proposed Residential, Retail, Retail Mixed Use, Office Mixed Use and Business Park sources within the project area. Note that the estimates in the table are considered conservative estimates and likely overstate actual operational solid waste generation.

A dramatic reduction in percentage in the residential solid waste generation can be attributed to an ongoing program to divert waste through separation of materials for recycling versus disposal. Consequently, since the program is not yet implemented for non-residential generators, the percentages over the same period reflects a dramatic increase, but this is not indicative to a shift in tonnage from residential to non-residential generators.

Table 4.16-6: Operational Net Solid Waste Generation

Net Solid Waste Generation[1]				
Land Use	**Size**	**Waste Generation Rate (pounds per day)**	**Daily Total (pounds)**	**Annual Total (tons)**
Residential (single family)	275 DU	12 lb/household	3,300	602
Retail	79.2 ac	13 lb/1,000 SF	11,212	2,046
Retail Mixed Use[2]	68.8 ac	5 lb/1,000 SF	3,745	667
Office Mixed Use[3]	23.6 ac	6 lb/1,000 SF	1,542	281
Business Park2	51.7 ac	5 lb/1,000 SF	2,815	514
Neighborhood Park[4]	4.5 ac	5lb/1,000 SF	1,045	191
Total			**23,659**	**4,301**

Source: http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Institution.htm, accessed March 18, 2014
Notes:

1. Solid waste includes paper products, food waste, greenwaste, and other types of waste other than hazardous, or industrial.
2. Generation rates for non-residential uses are based on a generic mix of uses in the Mixed Use categories.
3. Generation rate for business park assumed a combination of office and light industrial uses.
4. Generation rate for neighborhood park uses the Retail Mixed Use rate because solid waste generated at a park would be a combination of paper products, foodwaste and greenwaste.

Although the above estimate presents a significant amount of waste generation from the project development, the projected capacities for existing Mid-Valley, Colton and San Timoteo Sanitary Landfills (all San Bernardino County owned facilities within proximity of a 15 mile radius to the project area) appear to be sufficient in accommodating waste generation from the project development.

Even though regional landfill capacities would be available to accommodate the projected amount of solid waste, this figure would be substantially reduced through recycling and waste reduction practices and would avoid the unnecessary use of landfill capacity. These numbers do not reflect the 50 percent diversion rate being achieved by most cities in compliance with AB 939. This diversion rate applies to all residential and non-residential uses. In addition, the State has established a goal of 75 percent diversion by 2020, and intends to reach that goal through additional programs implemented at the State level to further decrease the amount of solid waste being landfilled.

Mitigation is proposed that would require applicants to implement construction recycling and waste reduction practices to the maximum extent feasible. The implementation of this mitigation measure would reduce construction-related solid waste generation substantially and conserve landfill capacity. For operational conditions, the City and its solid waste hauler have implemented programs for residential and non-residential recycling. These programs will apply to all new development projects in the project area. Therefore, long-term operational impacts on landfill capacity would be less than significant.

Energy

Buildout under the proposed CHCCSP land use plan would result in increased usage of electricity and natural gas. The threshold for this issue is the wasteful use of energy and the mitigation is compliance with applicable building codes including the California Green Building Code (CALGreen) as well as Title 24 of the California Building Code. Generation rates for electricity and natural gas are taken from the CALEEMOD program used to calculate Air Quality and Greenhouse Gas emissions and impacts. Table 4.16-7, *Energy Demands at Buildout Under the CHCCSP,* shows the results for energy use in 2020.

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. New standards were adopted by the Commission in 2005 as mandated by AB 970 to reduce California's electricity demand. The new standards went into effect on October 1, 2005. The standards emphasize energy efficiency measures that save energy at peak periods and seasons, improve the quality of installation of energy efficiency measures, incorporate recent publicly funded building science research, and collaborate with California utilities to incorporate results of appropriate market incentives programs for specific technologies.

Table 4.16-8: Energy Demands at Buildout Under the CHCCSP

Land Use	Buildout (DU or SQFT)[1]	Demand (Per Month)[2]	
		Electricity (kWh)[3]	Natural Gas (cubic feet)[3]
Proposed Project			
Residential	275	88,550	481,965
Retail	862,488	3,467,201	2,587,464
RMU	749,232	3,011,912	2,247,696
OMU	257,004	1,033,156	771,012
BP	563,013	2,263,312	1,689,039
Total	**2,431,737**	**9,864,131**	**7,777,176**

Source: CALEEMOD (California Emission Estimator Model).

Note:

1. A Floor Area Ratio of .25 was assumed for all non-residential development projects.
2. Demands were calculated using CALEEMod modeling tools used to calculate Air Quality and GHG emissions for operation of future projects in the CHCCSP project area.
3. kWH = kilowatt hours; kBTU = 1,000 British Thermal Units

In 2010, the California Energy Commission updated Title 24 standards with more stringent requirements. The 2010 Standards are expected to substantially reduce the growth in electricity and natural gas use. Additional savings result from the application of the Standards on building alterations, such as those within Title 24 Section V (Site Lighting) including Subpart E (Windows), F (Roofs), and S (Mechanical Equipment). These savings are cumulative, increasing as years go by.

Finally, in 2011, the State of California adopted the California Green Building Standards (CALGREEN). The CALGREEN regulations cover planning and design, energy efficiency, water efficiency and conservation, material conservation, and resources efficiency. Energy efficiency measures would apply to development of both residential and non-residential projects and must result in maximizing energy efficiency in buildings that are constructed in the project area as well as appliances that would be installed in both commercial and residential buildings.

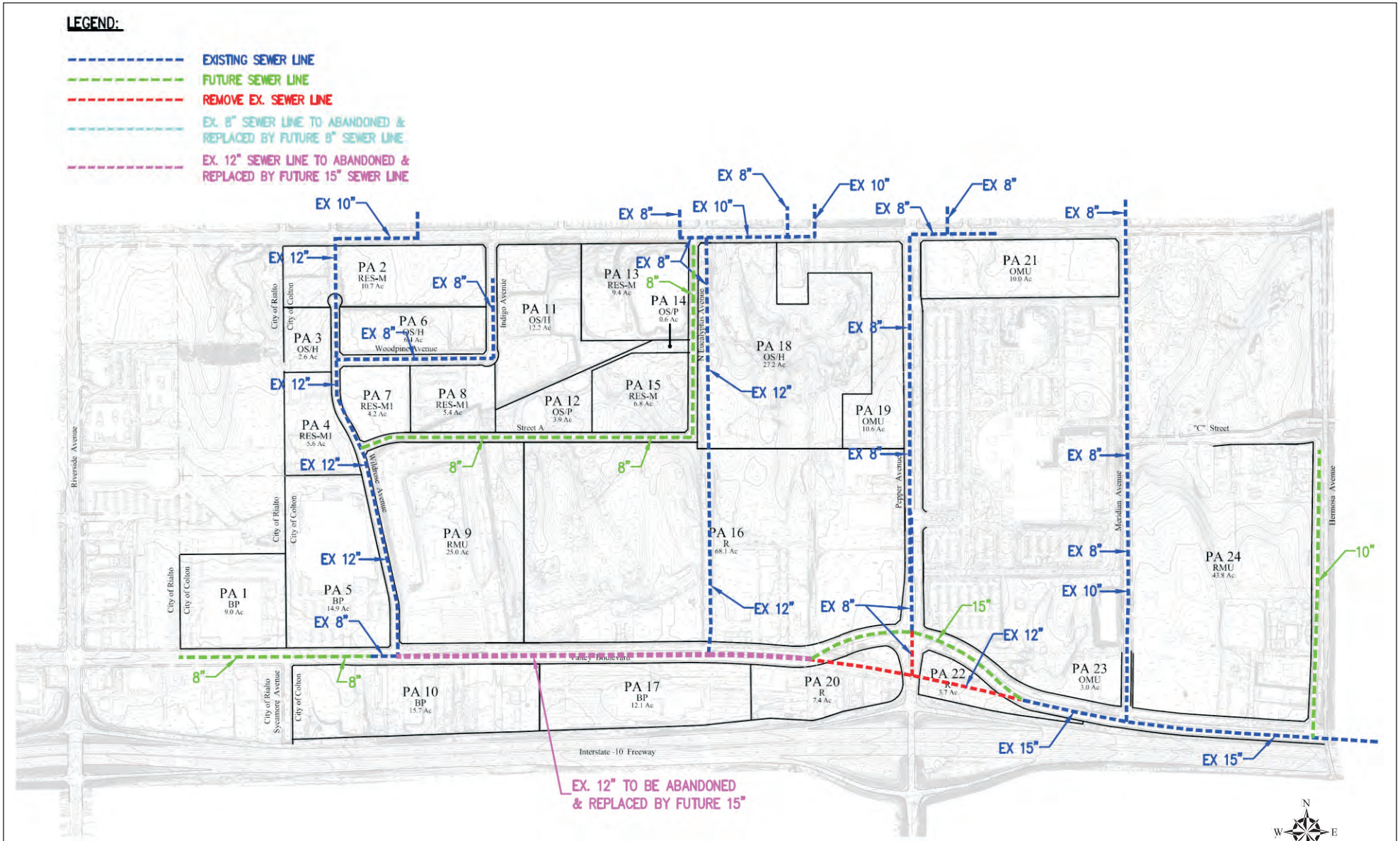
Adherence to the California Green Standards and other requirements of Title 24, new development in the CHCCSP project area would not have a significant effect on energy.

4.16-3 Mitigation Measures

USS-1 Prior to the issuance of demolition permits, each project applicant shall submit a recycling plan to the City of Colton identifying the procedures by which construction and demolition would be salvaged and recycled to the maximum extent feasible. The plan shall include proof that a construction and demolition debris recycler is under contract to the applicant to perform this work.

4.16.3.4 Level of Significance After Mitigation

Impacts identified in this section for public utilities and service systems are mitigated to less than significant levels through conformance with regulatory standards and regulations for Water Quality, Water and Wastewater Treatment, Storm Drains, Solid Waste Recycling, and Energy Conservation. One measure, to ensure that C&D materials are recycled or reused, has been included here to ensure that during development or redevelopment of project sites C&D material not be hauled to a landfill, to the extent feasible. Therefore, impacts associated with the proposed CHCCSP project would be less than significant.



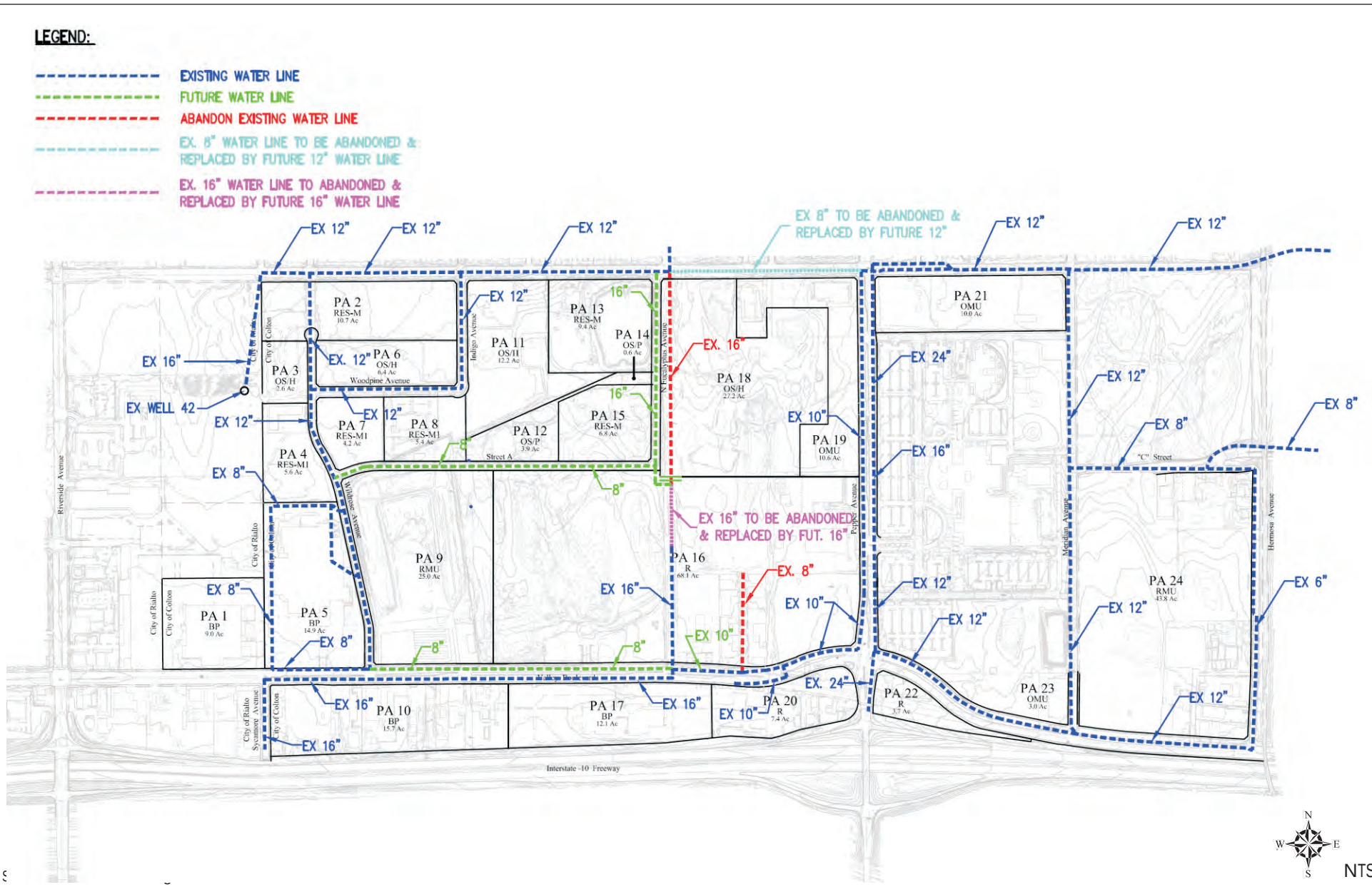
Source: JHA Consulting 2013

NTS

The Altum Group

Master Sewer Plan
CHCCSP Environmental Impact Report

Exhibit 4.16-1



The Altum Group

Master Water Plan
CHCCSP Environmental Impact Report

Exhibit 4.16-2

CHAPTER 5
Other Required CEQA Analysis

5.1 Introduction

This Chapter includes consideration of a number of potential environmental effects not otherwise covered in Chapter 4, *Environmental Impact Analysis* or Chapter 6, *Alternatives*. CEQA Guidelines Sections 15126.2, 15128, 15130 and 15131 describes the consideration and discussion of significant environmental impacts that may occur if a project is implemented. Specifically, this chapter covers the following

- Cumulative Impacts (Section 15130)
- Significant Irreversible Changes (Section 15126.2(c))
- Growth-Inducing Impacts (Section 15126.2(d))
- Effects Found Not to be Significant (Section 15128)

5.2 Cumulative Impacts

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effect is cumulatively considerable. Cumulatively considerable means that "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow one of two options:

The "list approach"- a list of past, present, and reasonably foreseeable future projects, producing related or cumulative impacts, including those that are outside the control of the lead agency; or

The "summary of projections" method - a summary of projections contained in an adopted General Plan or related planning document, which is designed to evaluate regional or area-wide conditions.

Because the City of Colton has recently updated the General Plan (2013), the "summary of projections" method was used to evaluate the cumulative impacts that may occur with implementation of the proposed CHCCSP and other related projects. Similar to the General Plan, the City-initiated CHCCSP is envisioned as a long-term commitment by the City to provide the mechanisms for future growth in the project area for a mix of residential and non-

residential uses consistent with long-term population and employment projections for the City.

The General Plan also considered the SCAG Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS). As part of SCAG's regional planning efforts, the agency developed a series of growth projections to forecast population, housing and employment for the City of Colton and neighboring communities, as well as the whole San Bernardino County region. These are summarized in Table 5-1, *SCAG 2008-2035 Growth Forecast*.

Table 5-1 SCAG 2008-2035 Growth Forecast

	Population			Households			Employment		
	2008	2035	%	2008	2035	%	2008	2035	%
Colton	52,100	71,700	38	15,000	21,100	41	24,000	29,600	23
Rialto	98,900	125,200	27	25,100	34,700	38	22,900	32,800	43
San Bernardino	209,900	261,400	25	59,300	76,800	30	101,300	145,300	43
San Bernardino Co.	2,016,000	2,750,000	36	606,000	847,000	40	701,000	1,059,000	51

Source: SCAG, Regional Transportation Plan, Sustainable Communities Strategy, 2012.

Table 5-1 shows continued growth in the local area as well as throughout the County of San Bernardino. The City of Colton's population is projected to increase by 38 percent which will necessitate the need for additional residential projects as well as non-residential projects that would provide employment opportunities. Likewise for adjacent cities where other projects will be developed and additional households will be created.

Table 5-2 *Comparison of Sites Inventory and RHNA*, shows the number of dwelling units in the lower, moderate and above moderate income brackets that could be developed in the City of Colton to meet the demand for additional housing based on SCAGs Growth Forecast and its Regional Housing Needs Assessment (RHNA) for the City of Colton. Based on the research done for the General Plan Housing Element (2014), the total number of dwelling units needed is 745 lower income dwelling units, 347 moderate income dwelling units and 831 above moderate income dwelling units. The City has identified capacity to provide the number of dwelling units identified by SCAG as well as additional units in all categories.

Table 5-2 Comparison of Sites Inventory and RHNA by Income Levels

	Lower	Moderate	Above Moderate
Approved Projects	120	10	269
Vacant Sites	1,017	658	1,736
Underutilized Sites	136	--	--
Total Capacity	**1,273**	**668**	**2,005**
RHNA (2013 - 2021)	745	347	831
Unaccomodated Prior Needs	186		
Total Need	**931**	**347**	**831**

Source: City of Colton Draft General Plan Housing Element, 2014.

The CHCCSP includes six planning areas (2, 4, 7, 8, 13 and 15) where up to 275 dwelling units could be developed. No developer has been identified yet so the type of housing stock and target income categories have not been identified.

5.2.1 Cumulative Impact Analysis

Aesthetics, Light, and Glare

As population and economic growth continue in the western San Bernardino Valley area over the long-term, future projects developed in the CHCCSP project area as well as in similar areas in other cities along the I-10 Freeway corridor will contribute to the continued expansion of an urban pattern throughout the San Bernardino Valley. New development, and redevelopment of underutilized properties along this corridor in San Bernardino, Colton, Rialto and Fontana for example, will add additional light sources, structures, and changes to the visual character of the area over time in the context of existing and future neighborhoods, light/glare sources, and surrounding vistas. Most non-residential development in the retail, mixed use and business park planning areas would likely consist of concrete tilt-up structures of varying sizes. Office mixed use planning areas may include office buildings similar in height to the ARMC.

Future development within the area will be subject to the policies of the respective cities general plans or specific plans, and applicable development standards in each city. This includes policies and programs that support preserving neighborhood character, quality design, and minimized lighting impacts. Although future growth in the CHCCSP project area, as guided by the CHCCSP, will contribute to the gradual urbanization of the western San Bernardino Valley, the proposed design policies and development standards will ensure that the contribution of future development projects in the project area, and along the I-10 corridor is less than significant and no significant adverse cumulative impact would occur.

Agricultural Resources

Analysis of agricultural impacts in Section 4.2 of this EIR indicates that no impact would occur from conversion of farmland or forest land. Since there is no individual impact, implementation of the CHCCSP would not have a cumulatively considerable effect on agricultural resources.

Air Quality

The regional context for assessing cumulative air quality impacts is the South Coast Air Basin in terms of national and State criteria pollutant standards. The CHCCSP project area is the context for localized levels of criteria pollutants and toxic air contaminants. As discussed in Section 4.3, implementation of the CHCCSP would conflict with the SCAQMD 2012 regional Air Quality Management Plan (AQMP). Based on the air quality modeling analysis, even with

implementation of Mitigation Measures AQ-1, AQ-2 and AQ-3, short-term construction emissions would still result in significant impacts based on the SCAQMD regional thresholds of significance. The Air Quality Assessment also found that even with implementation of Mitigation Measures AQ-4 through AQ-15, long-term operations impacts would still result in significant impacts based on the SCAQMD local, regional, and toxic air contaminant thresholds of significance. Therefore, the proposed project will contribute to the exceedance of air pollutant concentration standards and was found to be inconsistent with the AQMP.

The Air Quality Assessment determined that development projects in the CHCCSP project area would not however contribute significant toxic air contaminants (TAC), and therefore would not contribute cumulatively to the generation of TACs.

The City will continue to evaluate short-term, construction-related impacts and long-term impacts for discretionary land use projects in the CHCCSP, so that best available control measures can be applied, where warranted, to minimize the effects of individual development projects. Thresholds recommended by the SCAQMD will continue to be the preferred criteria for determining the level of impact significance at the project level of review. However, long-term cumulative air quality impacts to the region would still be considerable when taking future development in the CHCCSP project area into account. Therefore, both short term construction and long term operations would contribute to significant cumulative impacts to Air Quality.

Biological Resources

The analysis area for evaluation of cumulative impacts to biological resources includes the CHCCSP project area, the City of Colton and the DSF Recovery Unit (See Section 4.4 *Biological Resources*). The potential for cumulative impacts to biological resources in the project area have been well studied due to the presence of Delhi Sands Flower-loving Fly (DSF) and its habitat.

Efforts are underway with a Habitat Conservation Plan (HCP) to include conservation activities proposed by the City of Colton within and adjacent to the CHCCSP project area. The West Valley HCP's focused goal is to provide habitat conservation by setting aside approximately 50 acres of high and medium quality DSF habitat in planning areas 3, 6, 11 and 18, as well as a land bridge between planning areas 11 and 18 in planning area 14.

Implementation of the City's proposed HCP would result in the set aside of a 63.7 acres in permanent conservation north of the I-10 Freeway, that would be maintained and monitored for the benefit of the DSF, as well as other common and special-status wildlife species occurring on and adjacent to the proposed conservation areas that depend on vegetation communities of the Colton Dunes ecosystem. This includes approximately 50 acres in the

CHCCSP project area, and an additional 13.7 acres in the Hermosa Gardens Cemetery and in existing conservation areas east of the intersection of Valley Blvd and Pepper Avenue. Also as part of the West Valley HCP, a 5.8-acre linear area along Slover Avenue west of Pepper Avenue will be abandoned to allow sand movement across the road south into the Colton Dunes Conservation Bank.

The conservation areas would be permanently protected, preserved, restored and managed in accordance with the approved Preserve Management Plan under the stewardship of the Riverside Land Conservancy. Management of the conservation areas includes habitat restoration and enhancement measures to potentially increase habitat quality and result in an onsite DSF population increase. As a result, permit issuance and implementation of the City's HCP, in association with other projects also contributing to DSF habitat conservation in the vicinity such as the Colton Dunes Mitigation Bank, would not result in cumulative impacts to common as well as the special-status plant and animal species that depend on this habitat type.

Cultural Resources

The analysis area for the evaluation of cumulative impacts to cultural resources is the geographic area of the City of Colton and its Sphere of Influence which is the area covered by the City's General Plan. Future development in the City could include excavation and grading that could potentially impact archaeological resources and human remains. The cumulative effect of the proposed project is the continued loss of these resources if they are not recovered. The proposed CHCCSP in association with other future development projects in the City has the potential to cumulatively impact these resources. However, mitigation measures set forth in Section 4.5, *Cultural Resources*, would ensure that potential impacts associated with development of project sites in the project area could be reduce to less than significant levels for archaeological resources, paleontological resources, and human remains. These measures are standard operating procedure for most development projects in the City and its Sphere. Therefore, the proposed future development in the project area, would not contribute to a significant adverse cumulative impact to Cultural Resources.

Geology, Soils and Seismicity

The analysis area for evaluation of cumulative impacts to geology, soils and seismicity includes the entire City and Sphere of Influence. An example of a cumulative impact relative to this issue would be if a project development was not in compliance with California Building Code (CBC) standards for areas known for having seismic activity. The Geotechnical Assessment prepared for the CHCCSP project area (Appendix E) indicates that the project development is not located within:

- An Earthquake Fault Zone (EFZ);
- An area of high liquefaction; or
- In an area with slope erosion potential.

Nevertheless, the project area, like the rest of the City and region, would experience ground shaking from local and regional earthquakes. Mitigation measures provided in Section 4.6, *Geology and Soils*, would mitigate the effects of a seismic event to less than significant levels. Cumulative impacts would be less than significant because future development within the CHCCSP project area and the region in general would be required to comply with California Building Code standards for foundations and structures, to ensure that buildings are adequately supported to withstand seismic events and abate any unstable soil conditions should an occurrence arise.

In addition, other issues related to Geology and Soils can also be reduced to less than significant levels through implementation of Best Management Practices (BMPs) for the control of wind and water erosion, site development through proper grading and compaction techniques, and the requirement that all development in the project area be connected to sewer lines rather than septic systems. Therefore, future development in the CHCCSP project area would not contribute to a significant adverse cumulative impact on people and structures related to Geology and Soils.

Greenhouse Gasses

Climate change is inherently a discussion of cumulative impacts due to its global impacts. Future projects that would be developed as a result of the implementation of the CHCCSP would include activities that emit greenhouse gases over the short and long term that could exceed the applicable threshold for GHG emissions.

A summary of the business as usual (BAU) results in Section 4.7, Table 4.7-1, *Project Related Business As Usual Greenhouse Gas Emissions*, and Table 4.7-2. *Mitigated Project Related Greenhouse Gas Emissions 2020*, shows that future development projects in the CHCCSP project area with mitigation in year 2020 (opening year) emissions would be approximately 561,551 metric tons of CO_2e per year. Although the CHCCSP future projects would still exceed the SCAQMD draft threshold, the buildout scenario would meet the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard, compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction

from BAU emissions. Therefore, proposed buildout in the CHCCSP project area would not create cumulative significant impact to global climate change.

Hazards and Hazardous Materials

The analysis area for evaluation of cumulative impacts to hazards and hazardous materials includes the project area and a one-mile buffer around the project area boundary. An example of a cumulative impact relative to this issue would be if an industrial land use were to contaminate the local groundwater supply from usage of onsite hazardous materials. Potential, cumulative impacts for the project area were only found to be significant in relation to hazardous materials. Nevertheless, the Phase I ESA (Appendix F) recommended a Phase II study for sites known for having underground storage tanks (USTs) and leaking underground storage tanks (LUSTs) in order to fulfill compliance with the following agencies:

- San Bernardino County's Hazardous Materials Division (HAZMAT);
- California Accidental Release Program (CalARP);
- Underground Storage Tanks (UST);
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures (SPCC);
- Hazardous Waste Generation and Onsite Treatment;
- Hazardous Materials Management Plans and Inventory Statements under Uniform Fire Code Article 80;
- National Pollutant Discharge Elimination System (NPDES); and
- Regional Water Quality Control Board (RWQCB).

It is anticipated that the development of future projects in the CHCCSP project area would be in compliance with the requirements of the agencies and programs listed above, and new development projects will be required to prepare a Phase I Environmental Site Assessment. These assessments will identify any site specific issues that may require further analysis in a Phase II ESA or if site remediation is required. Compliance with agencies' requirement and remediation of affected sites would address and prevent cumulative impacts from Hazards and Hazardous Materials occurring in the project area.

Hydrology and Water Quality

The analysis area for evaluation of cumulative impacts to hydrology and water quality includes the project area and its location within the larger 528 acres associated with the overlap of two watershed areas bordering along Pepper Avenue; Watershed Area 3-3 occupying the western portion of the project area and Watershed Area 3-5 occupying the eastern portion of the project development. An example of a cumulative impact on Hydrology and Water Quality would involve a project development's non-compliance with federal, State and local agencies regulations regarding drainage and water quality (such as the County of San Bernardino's

MS-4 permit in which the City of Colton is a co-permitee) in preventing the potential for flooding attributable to impermeable conditions created (i.e. proposed streets, parking lots, etc.). Therefore, compliance with mitigation provided in Section 4.9, *Hydrology and Water Quality*, would ensure that future project development in the CHCCSP project area, in conjunction with future development of cumulative projects in the vicinity, will not have cumulatively considerable impacts on hydrology. Individual projects adherence to NPDES requirements for construction and City requirements for water quality management during long term operation of projects would ensure that impacts to water quality in the region would be less than significant.

Land Use

The analysis area for evaluation of cumulative impacts on land use includes the adopted WVSP and the proposed CHCCSP in relation to the City's General Plan. An example of a cumulative impact relative to this issue is if a change in designated residential land use from a lower to higher density would create an increased traffic overburden on a street circulation system meant originally for low density circulation capabilities. Compatibility with adjacent existing uses is also a concern where the project area abuts the City of Rialto Gateway Specific Plan project area, or where the project area is adjacent to the existing ARMC and Hermosa Gardens Cemetery. The CHCCSP is sensitive to surrounding land uses and land use plans and provided design guidelines and development standards that ensure land use compatibility between adjacent existing and proposed land uses. Furthermore, the General Plan and the CHCCSP envision that future development in the project area will result in a safe, attractive, pedestrian oriented, theme-based destination intended on adopting Smart Growth characteristics. Therefore, the project development as analyzed in Section 4.10, *Land Use and Planning*, does not create a foreseeable cumulative impact on land use compatibility to existing land uses within or adjacent to the project area.

Mineral Resources

According to the California Department of Conservation's Mineral Land Classification report, the project area has not been designated as a mineral resource recovery area, known as a "Sector." In addition, no mining operations currently occur on or in close proximity of the project area; nor does information suggest that mining operations have been conducted on or in close proximity of the project area in the past. The project area is not delineated as a locally important mineral resource recovery site in the City's General Plan or any other land use plan. Accordingly, there is no evidence that indicates the project area contains any mineral resource that could be of value on a regional or State level. Therefore, development of future projects in the CHCCSP project area is not expected to result in the loss of a mineral resource recovery site and therefore, no cumulative impacts to mineral resources would occur.

Noise

The analysis for the evaluation of cumulative noise impacts encompasses the ambient noise environment within and around the CHCCSP project area as well as within the larger City of Colton as evaluated in the 2013 General Plan Update Program EIR. The cumulative noise impact analysis is guided by evaluating increases in ambient noise levels in the project area vicinity relative to existing conditions in conjunction with other areas in the City such as the Union Pacific Rail Yard and California Portland Cement Company site located on the south side of the I-10 Freeway, and the Agua Mansa Industrial Park Specific Plan project area along the north side of the Santa Ana River. An example of a cumulative impact relative to this issue is if a proposed land use would result in prolonged levels of increased ambient noise (i.e., distribution centers). The noise impact analysis presented in Section 4.12, *Noise*, takes into account the land use compatibility for community noise exposure level (CNEL) by land use category within the project area. For development of a site with exterior noise levels less than 65 dBA CNEL, commercial or business park projects is normally acceptable, with typically no noise analysis or mitigation required. For development of a site with exterior noise levels in the 65- to 78-dBA CNEL range, commercial and business park projects are conditionally acceptable upon further analysis through a noise impact analysis and possible mitigation. For development of a site with exterior noise levels in the 75- to 85-dBA CNEL range, commercial or business park development is normally unacceptable.

The CHCCSP project area would be developed with a mix of uses in planning areas that are situated to complement uses within adjacent planning areas. In addition, where a Business Park planning area is adjacent to a Residential planning area, design guidelines and development standards such as setbacks from adjacent properties, installation of perimeter walls and location of HVAC equipment would ensure that land uses in planning areas do not generate noise levels in excess of City standards at property lines. In addition, as mitigation, the EIR requires that project proponents of non-residential land uses within specific planning areas must prepare site specific noise studies that would outline specific site design features to ensure compliance with the City's noise standards. This is also the case for development of future projects in other parts of the City such as the Agua Mansa Industrial Specific Plan project area.

With regard to increased traffic noise associated with additional project generated trips, the CNEL noise contours generated for existing and future conditions show that noise levels would increase along San Bernardino Avenue and Pepper Avenue which could affect existing and future sensitive receptors such as the existing ARMC and existing residences and a park along San Bernardino Avenue. However, the existing residences on the north side of San Bernardino Avenue are already protected by setbacks from the curb and perimeter walls. The recreation areas in the existing park in the City of Rialto immediately northwest of the project area are

largely separated from San Bernardino Avenue by the parking lot. The ARMC is also setback over 300 feet from Pepper Avenue. In other areas of the City where future development could occur, the City would require Noise Assessments on a project by project basis to ensure compliance with established noise thresholds.

Mitigation measure N-4 identified in Section 4.12, *Noise*, requires all project proponents of new projects in planning areas that would be located adjacent to sensitive receptors (future residents or the ARMC) conduct project specific noise studies to determine future noise levels from these sites, and that new projects must be designed to comply with applicable Noise standards. This same requirement would apply on new projects throughout the City.

Therefore, the proposed project would not have a cumulatively considerable impact to the acoustic environment.

Population and Housing

The CHCCSP includes up to 275 dwelling units and will add an estimated 965 new residents to the City of Colton. These future dwelling units will be located in Planning Areas 2, 4, 7, 8, 13, and 14, areas which are currently undeveloped. There is one small area of the CHCCSP project area that has a small existing neighborhood. This area is located at the corner of C Street and Hermosa Avenue. There are no plans to remove this neighborhood. Therefore, the project would not contribute to cumulative impacts involving displacement of housing or persons.

According to the City's General Plan (2013), rates of growth in the City and adjacent cities will occur in response to a variety of regional and national socioeconomic factors, including birth rates, migration from other states and other countries, land values, employment opportunities, interest rates, housing supply, demand and pricing, and broad regional and national economic conditions. Growth forecasts developed by SCAG were summarized in Table 5-1, and the City's effort to identify areas within its planning area (City limits and Sphere of Influence) for future residential development to accommodate this population growth are shown in Table 5.2.

SCAG's projected population growth within the City limits of Colton between 2008 to 2035 is 38 percent or approximately 71,700 residents. The General Plan assumed 72,000 residents. The General Plan also identified areas in the City where residential development would occur, including the CHCCSP project area. Based on the research done for the Draft General Plan Housing Element (2014), the City has the capacity to accommodate an additional 1,273 lower income dwelling units, 668 moderate income dwelling units and 831 above moderate income dwelling units. This exceeds the RHNA allocation for the City's 2013-2021 planning period (see Table 5-2). Therefore, implementation of the CHCCSP would not result in a significant adverse cumulative impact on Population and Housing.

Public Services

Because most public services are provided locally within the limits of the City of Colton, the analysis area for evaluation of cumulative impacts to public services focuses on the CHCCSP project area, the City of Colton General Plan planning area; and for public schools, the Rialto Unified School District. Development in the CHCCSP project area would increase demands for fire and police protection, schools, libraries, parks, trails, and other recreational facilities. These projects would be required to provide development impact and standard in-lieu-of payments to finance capital improvements to the facilities to maintain acceptable service ratios and performance standards.

The payment of development impact fees will assist the public service providers in meeting their respective goals to provide an adequate level of service in the project area. However, for Fire and Police services, each of these providers is requesting the development of new stations which is beyond the control of an individual project applicant. The timing and location of a new Police Station, and the relocation of the existing Fire Station 212 will be determined by each service provider as development in the project area occurs. Therefore, cumulative impacts on Fire and Police services would be less than significant.

With regard to schools and libraries, the payment of development impacts fees by both residential and non-residential uses will mitigate impacts on these services to less than significant levels and no cumulative impact would occur.

With regard to Parks, the City has an existing deficit of parkland to population and adding additional new residents combined with the net loss of 5.95 acres of parkland associated with the redevelopment of the existing approximately 10-acre George E. Brown park into a residential neighborhood will exacerbate this deficit. This cannot be fully mitigated by the creation of a new 3.8-acre park and 0.6-acre land bridge and the payment of Quimby fees by future development projects in the project area. Therefore, impacts to Parks would remain a significant cumulative impact.

Traffic and Circulation

The analysis area for evaluation of cumulative impacts to transportation focuses on the CHCCSP project area and other projects within a five mile radius. Development within the CHCCSP project area would increase traffic volumes along existing roadways and intersections in the Opening Year and in Year 2035 conditions. With the addition of cumulative trips generated by future projects in the project area and its future phases of development, several intersections in need of improvements will operate at or below sufficient levels of service and will thus require improvements to increase levels of service to acceptable performance levels. Implementation of the CHCCSP will also result in minor alterations to existing roadways

involving landscaped medians along Pepper Avenue, Wildrose Avenue and Valley Blvd. Street widening improvements are proposed for San Bernardino Avenue by expanding its current, 2-lane, 88-foot right-of-way to a 4-lane, 99-foot right-of-way.

Mitigation outlined in Section 4.15, *Traffic and Circulation*, to provide a fair share of roadway improvements to the local road network would ensure the City's goal in attaining its visionary concept of a new "Hub" that is a walkable and pedestrian oriented community where people can live, work, shop and plan, while still allowing a smooth flow of motor vehicle traffic along Valley Blvd and Pepper Avenue to accommodate the ARMC, and new high quality office, business retail and hospitality uses.. Internally, all project proponents would be required to provide a Construction Traffic, Staging, and Parking Management Plan for review and approval by the City in order to safeguard on and off-site construction activities. City monitoring of traffic operations would be required during all phases of project development and to provide corrective measures, if needed. Finally, new development projects will be required to provide bicycle parking availability for retail establishments to fulfill provisions set forth in Mitigation Measure Trans -4. Other mitigation requires that all development projects pay their fair share of roadway and freeway improvements that cumulatively would be used to make the required road and intersection improvements to maintain acceptable levels of service. Therefore, implementation of the proposed CHCCSP would not contribute to a significant adverse cumulative impact on traffic and circulation.

Utility and Service Systems

The proposed projects cumulative impacts to utility systems are discussed separately below.

Potable Water

The City of Colton and West Valley Water District (WVWD) currently provide water services for the WVSPA project area. The City of Colton currently provides water services to the project area east of Pepper Avenue and the WVWD provides water services west of Pepper Avenue. Mitigation proposed for the project will require compliance with the Model Water Efficient Landscape Ordinance, and with various water conservation measures and practices, including high efficient washers, re-circulating hot water systems, tankless hot water heaters, green roofs, evapotranspiration- based water controllers, water budgets for landscape irrigation, and high efficiency toilets. To conclude, the mitigation implemented in Section 4.16 *Utility Systems*, will assure the project development's compatibility in preventing cumulative impacts to potable water. Likewise, future projects in the City would also be required to comply with the requirements of State (Title 24) and local programs including the City's Model Water Efficient Landscape Ordinance. In addition, on a project by project basis, the City's Water Department is responsible for ensuring water supply and will continue to monitor growth in the City on a project by project basis.

Wastewater

The City of Colton owns, operates and maintains a wastewater collection, pumping and treatment system and will be providing the wastewater collection for the proposed CHCCSP area. The City is responsible for the construction and on-going maintenance of the wastewater collection system within the City limits. Mitigation involving a detailed analysis of the size and location of the sewage collection system will be required as part of the final design of projects in the CHCCSP project area. The sewer pipe size will then be refined to meet the requirements of the City of Colton based on the proposed land use. Therefore, implementation of the proposed CHCCSP would not result in cumulative impacts to the wastewater collection and treatment system. For future development projects in the City of Colton, each project applicant must be responsible for providing engineering studies and wastewater calculations for individual projects. These will be reviewed and approved by the City on a project by project basis and compared with the City's master plan for wastewater treatment in order to plan for future maintenance and upgrades to the City's plants. Therefore, cumulative impacts on the City's ability to provide adequate conveyance and treatment of wastewater would be less than significant.

Storm Drainage

The proposed project, in conjunction with its planned development in Watershed Areas 3-3 and 3-5, would create the potential for additional runoff volumes into the Colton drain and into Storm Drain 3-3. Future development phases within the project area would be required to provide drainage impoundment facilities that would detain runoff prior to discharge into the Colton Drain and Storm Drain 3-3. As shown in Exhibit 4.9-3, *Master Storm Drain Plan*, the CHCCSP project area will be served by a system of existing and new storm drains that will be developed or upgraded as development occurs in the project area. These improvements would be paid for by development impact fees, or the creation of a community facilities district. Therefore, the proposed project with its planned development phases will not have a cumulative impact on storm drainage. For future development projects in the City of Colton, each project applicant must be responsible for providing engineering studies and drainage calculations for individual projects. These will be reviewed and approved by the City on a project by project basis and compared with the City's storm drain planning efforts in order to plan for future maintenance and upgrades to the City's storm drain system and with the County of San Bernardino's flood control system. Therefore, cumulative impacts on the City's ability to provide adequate conveyance and treatment of storm water would be less than significant.

Solid Waste

Mitigation is proposed that would require future project proponents to implement operational recycling and waste reduction practices to the maximum extent feasible. The implementation of this mitigation measure as indicated in Section 4.16, *Utility Systems*, would reduce operational solid waste generation substantially and will assist to conserve landfill capacity. In addition, as identified in Mitigation Measure USS-1, each new development project will be required to implement a construction and demolition recycling/reuse plan to maximize the amount of C&D material diverted from regional landfills. The City of Colton hosts a private landfill on Agua Mansa Road that is dedicated to receiving C&D material. This mitigation is standard for all development projects in the City of Colton. Therefore, long-term operational and cumulative impacts on landfill capacity would be less than significant.

Energy

The proposed project, in conjunction with its proposed phases of development in the City of Colton and Southern California Gas Company service areas will increase demand for electricity and natural gas. As indicated in Section 4.16, *Utilities and Service Systems*, the projected consumption of electricity and natural gas can be reduced through compliance with Greenhouse Gas Emission Reduction Strategies (Also see Section 4.8, *Greenhouse Gasses*). These include the following:

- Compliance with the California Green Building Code (CALGreen) which prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business-as-Usual Scenario (California Building Code). The mandatory measures that are applicable to future projects in the CHCCSP project area include energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures. Future projects would be required to adhere to the mandatory measures as required by the CALGreen Code.

- Work with developers to maximize energy efficiency in all building and appliances and encourage them to pursue additional efficiency efforts including new technologies. Future projects would be required to comply with the latest Title 24 standards, including the latest California Building Code of Title 24, for building construction.

Compliance with the latest building codes and energy efficiency standards will ensure that the energy demand by future projects in the CHCCSP project area and throughout the City of Colton would not be unnecessary or wasteful. Therefore, the proposed project with its planned development phases will not have a cumulative impact on energy demand.

5.3 Significant Irreversible Changes

CEQA Section 15126.2(c) states that use of nonrenewable resources during the initial and continued phases of a proposed project may be irreversible if a large commitment of these resources makes their removal, indirect removal, or non-use thereafter unlikely. This section of the EIR evaluates whether the project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment. Also, in accordance with Section 15126.2(c) of the CEQA Guidelines, this section identifies any irreversible damage that could result from environmental accidents associated with the proposed project.

Irreversible Commitment of Resources

Implementation of the CHCCSP would result in the development of a mix of land uses in an area that is approximately 40 percent developed. New uses include up to 275 dwelling units, and non residential uses including retail, retail mixed use, office mixed use, business park uses, a 4.5 acre park, 63.7 acres of habitat in permanent conservation (including 13.3 acres of existing and proposed habitat in the West Valley HCP area), and approximately 55 acres of street right-of-way. Development of future projects may occur on currently vacant land not set aside for habitat conservation, or the redevelopment of currently occupied sites where demolition of existing buildings may occur. Overall, implementation of the CHCCSP would contribute to the incremental depletion of resources, including renewable and nonrenewable resources.

Construction and operation of future projects in the CHCCSP project area would contribute to the incremental depletion of resources, such as lumber and other forest products, which are generally considered renewable resources. Such resources would be replenished over the lifetime of the project. For example, lumber supplies are increased as seedlings mature into trees. As such, the development of the project would not result in the irreversible commitment of renewable resources.

Non-renewable resources, such as natural gas, petroleum products and petrochemical construction materials, steel, copper and other metals, are considered to be commodities that are available in a finite supply. The processes that created these resources occur over a long geologic period of time. Therefore, the replacement of these resources would not occur over the life of the projects that would be developed in the CHCCSP project area. To varying degrees, these materials are all readily available and some materials, such as asphalt or sand, and gravel, are abundant and with the State's mandate to divert 50 percent of all solid waste (including construction waste) from landfills, recycling and reuse of construction aggregate material is occurring now. The growth in the construction material recycling/reuse industry has resulted in recycled aggregate products being used in new development projects. Even

though recycled aggregate projects are being used in development projects today, there would still be an incremental increase in the demand for new construction aggregate resources over the life of the project.

Other commodities, such as metals, natural gas, and petroleum products, are also readily available, but they are finite in supply, given the length of time required by the natural process to create them. The demand for all such resources is expected to increase regardless of whether or not any new projects are developed in the CHCCSP project area. Increases in Southern California's population would directly result in the development of more retail, commercial and residential projects in order to provide the needed services associated with this growth. If not consumed by projects in the CHCCSP project area, these resources would likely be committed to other projects in the region intended to meet this anticipated growth. Furthermore, the investment of resources in the project area would be typical of the level of investment normally required for residential and non-residential uses of this scale. Mitigation measures have been included in this EIR to reduce and minimize project and cumulative impacts and are summarized in Table 2-4 in Chapter 2.0, *Summary* (also see Chapter 4, *Environmental Impact Analy*sis).

Irreversible Environmental Changes

Irreversible long-term environmental changes associated with future projects in the CHCCSP project area would include changes in the visual character of the project area as a result of the conversion of an older underutilized area of the City of Colton into a mixed use area with the Arrowhead Regional Medical Center (ARMC) in the center of the project area. Additional irreversible environmental changes would include the increase in local and regional traffic, and the resultant increase in air pollutants including greenhouse gasses, as well as noise generated by this traffic, among other impacts. Design features and development standards have been established in the Specific Plan and mitigation measures have been identified in the EIR that would minimize the effects of the environmental changes associated with the development of future projects in the CHCCSP project area to the maximum extent feasible. In addition, the project area is a relatively urban site already and the implementation of CHCCSP would improve this location of the City. Even with this being the case, the project would result in significant and unavoidable short-term and long term air quality impacts during construction and operation.

Potential Environmental Damage from Accidents

Existing land uses on some sites within the project area have been identified as having Potential Environmental Concerns (PECs) and Recognized Environmental Concerns (RECs) including sites where service stations, vehicle repair shops, machine shops and other such

uses. These and other sites may also contain underground or above ground storage tanks that must be periodically inspected. Individual property owners of these sites are responsible for cleanup and maintenance of their sites in accordance with standards established by the State and/or Federal EPA. Site preparation of these sites for future development will require that Phase I ESAs be prepared to identify any existing potentially hazardous conditions and, if necessary conduct a Phase II ESA that would identify remediation efforts to clean up the site. Finally, remediation of these sites would be required prior to any new development.

New development projects in the CHCCSP project area would not include uniquely hazardous uses and the operation of future projects would not be expected to cause environmental accidents that would affect existing residents in and adjacent to the project area. Most proposed uses that would be permitted in the project area such as residential, retail and office uses would not be expected to use or dispose of hazardous materials. Those uses that may occur in the project area that may use hazardous materials would be located in one if the Business Park planning areas or by a Conditional Use Permit in Retail or Retail Mixed Use planning areas. Such uses as vehicle repair shops, gas stations, car washes, and manufacturing and assembly facilities would be required to prepare and implement Hazardous Materials Business Plans that must be reviewed and approved by the City of Colton Fire Department and the San Bernardino County Fire Department, the Certified Unified Program Agency (CUPA) for the County.

The project area is located in a seismically active area where groundshaking would most likely be the cause of damage during a seismic event. Each project proponent will be required to adhere to the recommendations made in the Geotechnical Report prepared for the project area that require additional geotechnical study of on-site soil and geologic conditions, the removal of undocumented fill material, re-evaluation of documented fill material, the overexcavation and compaction of near surface soils, and the review of all final grading plans by a professional geologist. Adherence to the latest edition of the California Building Code will also be required for all new structures or substantial remodeling of existing structures.

5.4 Growth Inducing Impacts

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. This section should also discuss the characteristics of some projects which may encourage and facilitate other activities that

could significantly affect the environment, either individually or cumulatively.

The proposed CHCCSP is specifically intended to provide for the orderly growth of the project area to achieve economic, environmental and quality of life benefits. The CHCCSP includes the development of new infrastructure systems or upgrades to existing systems to facilitate growth of undeveloped or underutilized properties in the project area. Projects permitted pursuant to land use policies will provide for additional housing in the City, create a better balance of residential and non-residential uses in the community, promote organized and pedestrian-friendly commercial development and protect natural resources. Implementation of the CHCCSP will result in a more sustainable community, by providing the infrastructure to allow people to live, work and shop within the project area and do it all without using a motor vehicle. This type of community will assist the City in fostering a more stable economic base and diversify the employment opportunities in the City. Finally, although the CHCCSP includes a residential component, the 275 additional dwelling units represent only a 1.8 percent increase in the City's population and this growth is not considered to be significant. Therefore, the growth inducing characteristics of the proposed CHCCSP are considered to be beneficial.

5.5 Effects Found Not to be Significant

CEQA Guidelines Section 15128 state that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Utilizing the City's environmental checklist, the EIR for the CHCCSP considered a wide range of potential impacts that could occur with implementation of the CHCCSP. These are all described in detail in Chapter 4, *Environmental Impact Analysis.*

CHAPTER 6
Alternatives to the Proposed Project

6.1 Introduction

In accordance with CEQA Guidelines Section 15126.6, this section provides 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 Section 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

6.2 Project Description

Chapter 3 of the EIR provides a comprehensive project description of the proposed CHCCSP including a Purpose and Need statement as well as a list of Project Objectives. The Project Description is summarized here for the convenience of the reader.

6.2.1 Project Description

Table 6-1, *Land Use Summary*, and Table 6-2, *Planning Area Summary*, are repeated here for the purposes of evaluating alternatives to the proposed CHCCSP. The proposed project would allow the City to guide development of the 373-acre project area with a mix of uses and the infrastructure to support new development projects and the redevelopment of existing underutilized properties.

Table 6-1 Land Use Summary

Description	Land Use Designation	Acres	Dwelling Units	Density	Percentage of Area
Residential					
Medium	RES-M	26.9	108	4 du/ac.	7.2
Medium-1	RES-M-1	15.2	167	11 du/ac.	4.1
Residential Sub-Total		**42.1**	**275**		**11.3**
Commercial/Office/Business Park					
Commercial Retail	R	79.2			21.2
Retail-Mixed Use	RMU	68.8			18.4
Office-Mixed Use	OMU	23.6			6.3
Business Park	BP	51.7			13.8
Commercial Sub-Total		**223.3**			**59.7**
Open Space					
Parks	OS/P	4.5			1.2
Habitat Conservation	OS/H	48.4			13.0
Open Space Sub-Total		**52.9**			**14.2**
Other Public Uses					
Major Street Rights-of-Way		**54.9**			**14.7**
Total		**373.2**	**275**		**100%**

Source: Colton's Hub City Centre Specific Plan 2014.

6.2.2 Purpose and Need for the Project

The primary purpose of the CHCCSP is to implement the vision and policies of the City of Colton. The CHCCSP will update a portion of the existing WVSP that was previously adopted in 1996. Specifically, the purpose of the CHCCSP is to:

- Articulate and implement the vision that evolved during public workshops in 2007 / 2008 and in 2012 with members of the community, city staff, Planning Commission and City Council, which includes the following:
    - Establish a land use plan with comprehensive development regulations, community planning and design standards that will create a sense of community and a sense of place.

Table 6-2 Planning Area Summary

Planning Area	Land Use	Land Use Designation	Acres	Target Density*	Target Dwelling Units	Dwelling Units*
1	Business Park	BP	9.00			
2	Residential/Medium	RES-M	10.70	4 du/ac.	43	0-51
3	Open Space/Habitat	OS/H	2.60			
4	Residential Medium 1	Res-M1	5.60	11 du/ac.	62	5.1-14
5	Business Park	BP	14.90			
6	Open Space/Habitat	OS/H	6.40			
7	Residential/Medium 1	Res-M1	4.20	11 du/ac.	46	5.1-14
8	Residential/Medium 1	Res-M1	5.40	11 du/ac.	59	5.1-14
9	Retail-Mixed Use	RMU	25.00			
10	Business Park	BP	15.70			
11	Open Space/Habitat	OS/H	12.20			
12	Open Space/Park	OS/P	3.91			
13	Residential/Medium	Res-M	9.40	4 du/ac.	38	38
14	Open Space/Park	OS/P	0.60			
15	Residential-Medium	Res-M	6.80	4 du/ac.	27	27
16	Retail	R	68.10			
17	Business Park	BP	12.10			
18	Open Space/Habitat	OS/H	27.20			
19	Office Mixed Use	OMU	10.60			
20	Retail	R	7.40			
21	Office Mixed Use	OMU	10.00			
22	Retail	R	3.70			
23	Office Mixed Use	OMU	3.00			
24	Retail-Mixed Use	RMU	43.80			
	Major Street ROW's		54.89			
	Totals		**373.20**		**275**	

Source: Colton's Hub City Centre Specific Plan 2014.

- Create a pedestrian friendly community that becomes a place where people are encouraged to walk or bicycle between homes, shopping, restaurants, entertainment and businesses.
- Assure that the area develops in a comprehensive and coordinated fashion with adequate consideration for infrastructure, public safety, public services, and resource management.
- Incorporate bus repid transit (BRT) routes planned by Omnitrans along major streets within the CHCCSP project area.
- Create a new employment center for the City of Colton.
- Strengthen the City's economic base.
- Implement the goals and policies of the City's General Plan.

The existing WVSP assumed buildout in the specific plan project area (both the West Subarea and the East Subarea) of a variety of nonresidential uses with a Floor Area Ratio of 0.25 (FAR 25). Using the same FAR approximately 2.4 million square feet of nonresidential uses could be developed in the CHCCSP project area. Table 6-3, *Projected Development of Non-Residential Uses*, shows the acreage and projected square footage by Land Use type.

Table 6-3: Projected Development of Non-Residential Uses

Land Use	Non Residential Development	
	Acres	Square Feet[1]
Retail (R)	79.2	862,488
Retail Mixed Use (RMU)	68.8	749,232
Office Mixed Use (OMU)	23.6	257,004
Business Park (BP)	51.7	563,013
Total	**223.3**	**2,431,737**

Notes:

1. Assumes a Floor Area Ratio of 0.25 for development of non residential land uses. That is, 25 percent of a site would be developed with structures, the remaining site area would consist of parking lots, driveways, landscaping, loading areas, etc.

The need for the project is to allow for the orderly revitalization of the 373-acre project area that is currently characterized by vacant and underutilized properties. Approval of the West Valley HCP will allow development or redevelopment of these properties while still setting aside conservation planning areas within the project area for DSF. The vision for the CHCCSP

project area is to restore the sense of community, vibrancy and vitality of the small town atmosphere. This includes incorporating a broad range of uses all within walking distance of one another, including shopping, restaurants, entertainment, hospitality, offices and housing. In addition, the vision includes creating a new Main Street setting, new employment opportunities and establishing a new strong economic base for the City. Open space for habitat conservation is also part of the CHCCSP as required under the HCP that has been submitted for approval to USFWS. The development of the project area under the guidance of the CHCCSP design and development standards will ensure this orderly growth to meet the City's need for the orderly revitalization of the project area.

6.2.3 Project Objectives

In addition to the statement of purpose and need, the City has identified a number of objectives to be met by the implementation of the proposed CHCCSP. The primary purpose of the CHCCSP is to implement the vision and policies of the City of Colton for Colton's Hub City Centre project that will amend and update a portion of the existing West Valley Specific Plan (WVSP). These objectives have been used in the evaluation of the proposed Specific Plan amendment to the WVSP and to evaluate alternatives to the CHCCSP Land Use and Circulation plans that may meet these objectives while reducing the potential significant environmental effects of Specific Plan implementation. Specifically, the City's objectives in proposing the amendment to the WVSP for the West Subarea (CHCCSP project area) are to:

- Establish a land use plan with comprehensive development regulations, community planning and design standards that will create a sense of community and a sense of place.
- Create a community that becomes a place where people are encouraged to walk or bicycle between homes, shopping, restaurants, entertainment and businesses.
- Assure that the area develops in a comprehensive and coordinated fashion with adequate consideration for infrastructure, public safety, public services, and resource management.
- Incorporate bus rapid transit (BRT) routes planned by Omnitrans along major streets within the CHCCSP project area.
- Create a new employment center for the City of Colton.
- Strengthen the City's economic base.
- Implement the goals and policies of the City of Colton General Plan.

6.2.4 Impacts of the Proposed Project that Cannot be Mitigated to Less Than Significant Levels

Chapter 4, *Environmental Impact Analysis*, and Chapter 5, *Other Required CEQA Analysis* (including an analysis of Cumulative Impacts) evaluate the potential impacts associated with

implementation of the propose CHCCSP. The conclusion of the EIR is that there are a number of significant unavoidable impacts that cannot be mitigated to less than significant levels. These are as follows:

Project Related Impacts

1. Significant Impacts to Air Quality associated with the generation of air emissions in excess of established thresholds, during both construction and long term operation of future projects in the CHCCSP project area.
2. Significant Impact to Public Services specifically associated with the loss of an existing 10-acre City-owned park located at the intersection of San Bernardino Avenue and Eucalyptus Avenue, and the replacement of this park with a smaller 3.8-acre neighborhood park and a 0.6-acre land bridge between planning areas 11 and 18 to allow DSF to migrate between these two conservation areas, resulting in a net loss of 4.5 acres of public park land in a City already experiencing a shortage of public park space.

Cumulative Impacts

1. Significant Cumulative Impact to Air Quality associated with the generation of air emissions in excess of established thresholds, during both long term operation of future projects in the CHCCSP project area and other related projects in the City of Colton and adjacent cities.
2. Significant Cumulative Impact on Parks; as the City's population increases, demands on Parks and Recreation facilities will increase.

6.3 Alternatives Considered and Rejected

There are two plans that will govern the CHCCSP project area in the future: (1) the Specific Plan; and (2) the West Valley Habitat Conservation Plan (HCP). Therefore, the selection of alternatives considered for analysis must reflect both plans. The boundary of the CHCCSP project area and the West Valley HCP Plan area are similar with the exception of the following areas:

- The CHCCSP project area boundary extends south of Valley Blvd to the I-10 Freeway and does not include any land south of the freeway. The CHCCSP project area boundary does not include the ARMC property or the Hermosa Gardens Cemetery.
- The West Valley HCP plan area boundary does not extend south of Valley Blvd but does include 5.8 acres of non contiguous area south of the I-10 freeway along a segment of Slover Avenue and does include the ARMC property, Hermosa Gardens Cemetery, and existing conservation areas.

Although the HCP has not yet been approved, the CHCCSP incorporates all of the current mitigation measures contained in the proposed West Valley HCP.

6.3.1 Alternatives Considered in the NEPA Environmental Assessment

The first set of alternatives considered and rejected from further analysis is related to the conservation of Delhi Sands Flower-loving Fly (DSF) habitat. The City has initiated a City-wide effort to conserve DSF habitat in accordance with US Fish and Wildlife Service's DSF recovery plan efforts. The USFWS's Recovery Plan (USFWS 1997) criteria for this species call for the permanent protection of at least four populations of DSF in the Colton Recovery Unit, two to the north and two to the south of the I-10 Freeway. The Colton Recovery Unit is shown in Exhibit 4.4-1, *Delhi Sands Soils*, in Section 4.4, *Biological Resources*. The West Valley HCP focuses on preserving populations north of the I-10 Freeway. Exhibit 4.4.5, *Preserve Management Units*, in Section 4.4, shows the areas north of the freeway that will be preserved under the HCP's management strategy.

The Environmental Assessment prepared for the West Valley HCP under the National Environmental Policy Act (NEPA) for the US Fish and Wildlife Service, identified alternatives that were considered and rejected. These are briefly described here. The preferred alternative has been incorporated into the CHCCSP and is not evaluated as a separate alternative here.

1. ***Inclusion the City's DSF Planning Effort into the Larger San Bernardino County Multi-Species Habitat Conservation Plan.***

This was to include the City's DSF habitat conservation planning in a larger San Bernardino County valley-wide Multi-species Habitat Conservation Plan (MSHCP). The County of San Bernardino had intended to prepare a valley-wide MSHCP that would focus on the conservation of several species and associated habitats within the valley region of the County; generally along the Interstate 10 Freeway corridor between the Riverside/San Bernardino boundary on the south and the foothills of the San Gabriel and San Bernardino mountain ranges on the north. Similar large MSHCPs have been developed in western Riverside County and the Coachella Valley. Such an MSHCP for San Bernardino County would eventually allow the County and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing State and Federal requirements of the ESA. Although the County had initiated discussions with the Service and negotiated a memorandum of understanding (MOU) with most of the cities in the valley, no significant progress on preparing a valley-wide MSHCP has been made, to date and Federal funding set aside by USFWS for this program has been withdrawn. There are no current plans by the County to

resume this planning effort. In order to provide some certainty in addressing endangered species issues within the City boundaries and a limited number of County areas, the City feels it is imperative that it initiate its own HCP specifically for DSF rather than wait for the County to resume its efforts. If the County of San Bernardino resumes its efforts to prepare a valley-wide MSHCP, the City of Colton will coordinate its efforts with the County MSHCP to the extent practicable.

2. Permit Issuance with Offsite Conservation

Under this alternative avoidance and minimization measures would be the same or similar to those occurring under the preferred alternative which is the issuance of an Incidental Take Permit with the Implementation of the HCP. Note: these measures are mitigation measures outlined in EIR Section 4.4 Biological Resources. Under this alternative future project proponents would mitigate for the take of DSF and its habitat offsite to the extent possible. Credits would be purchased from the Colton Dunes Conservation Bank (Bank) located south of Interstate 10 in the City of Colton. The Bank was established by Vulcan Materials, Inc., and approved by USFWS in 2005 as a mitigation bank for DSF. This alternative was considered to be inferior to the preferred alternative because the DSF habitat located within the West Valley HCP area consists of high and to a lesser extent medium quality occupied habitat adjacent to existing conservation areas, and the DSF populations located in the West Valley HCP area are considered critical to the conservation of the species. In addition, given the number of acres to be mitigated and the mitigation ratios for different types of habitat (i.e., high, medium, and low quality), purchasing of bank credits in lieu of onsite conservation is beyond the financial resources of the City. The fee charged by the Bank is about $250,000 per acre so the cost to the City would be at least $12,750,000 if all of the mitigation occurred offsite at the Bank. For these reasons, the alternative of mitigating DSF impacts resulting from the proposed HCP through the purchase of credits at the Colton Dunes Conservation Bank was eliminated from further study in the NEPA EA. This alternative was also not considered in the EIR because it represented a more intense alternative, by allowing an additional 50 acres of land to be developed with urban uses.

3. No Permit Issuance and No Comprehensive City-Initiated HCP Implementation

This alternative essentially represents existing conditions or status quo because it assumes that no HCP would be developed for the City of Colton north of the I-10 Freeway. This alternative, which was considered in the NEPA EA for the HCP, has been incorporated into the analysis of the No-Project Alternative evaluated below.

Alternatives 1 and 2 were not considered as alternatives for further evaluation in the EIR because (1) there is no San Bernardino County MSHCP; and (2) permit issuance with off-site

conversation would not likely be feasible for most future project applicants when the conservation bank is charging fees of $250,000 per acre. Alternative 3 is considered in the EIR as the no project – development under the Existing WVSP alternative because it represents existing conditions under the adopted WVSP.

6.3.2 Alternatives Considered and Rejected Under CEQA

Alternative Location

For an alternative location to be feasible to support the proposed CHCCSP, it would need to meet the following criteria:

- Be located within the limits or the sphere of influence of the City of Colton.
- Contain a minimum of 323 acres (developable area minus conservation areas), with the acreage being either contiguous or separated only by streets.
- Be designated for commercial, office, or mixed-uses by the City of Colton.
- Be under the ownership of either developing applicants or the City of Colton.

Larger areas in the City of Colton or adjacent unincorporated areas that are currently vacant or sparsely developed include areas in the Agua Mansa Industrial Corridor Specific Plan project area and the Santa Ana River Redevelopment Specific Plan project area. Both of these areas are identified for industrial uses such as large distribution/warehouse or manufacturing facilities and do not have the infrastructure to support the type of mixed use development proposed in the CHCCSP project area that would create a sustainable community as that envisioned in the CHCCSP.

The Reche Canyon Specific Plan located in the southeastern portion of the City is designated for residential subdivisions similar to the types of developments currently developed in that area. This specific plan is designated for residential development and does not allow for development of non-residential uses. Therefore, this alternative location was rejected.

The Cooley Ranch Planned Community area would allow similar uses as those envisioned in the CHCCSP project area, however, this area is already a planned community with a mix of high density residential and commercial retail, office, and light industrial uses.

Adjacent to the City of Colton is approximately 772 acres associated with the California Portland Cement Company. This area has been the site of a successful mining and processing facility since the 1880's. Future use of this area is under private ownership and therefore, is not available as an alternative site for the CHCCSP.

Therefore, no area in or adjacent to the City of Colton is available to implement the CHCCSP to the size and intensity set forth in the Specific Plan.

6.4 Alternatives Considered For Analysis in the EIR

After consideration of alternatives, two alternatives to the proposed CHCCSP were selected for further analysis.

No Project – Development Under the Existing WVSP Alternative

CEQA Guidelines Section 1512.6(e)(1) and (2) state that a "no project" alternative shall be evaluated but that the no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that. The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

The Notice of Preparation for the proposed amendment to the WVSP (adopted in 1996) was published in 2008 and an EIR was prepared for that project. However, due to the downturn in the economy and the presence of DSF habitat in the project area, the specific plan amendment was not approved and the EIR for that project was not certified. To date, no new projects have been developed in the project area, and existing conditions today are similar to those in the project area in 2008. Therefore, the no project alternative analysis discusses existing conditions at the time the environmental analysis commenced for the CHCCSP which is an amendment to the adopted 1996 WVSP. That environmental analysis commenced in May 2013.

As allowed under CEQA Guidelines Section 15126.6(e)(1)(A), the no project alternative is the continuation of the existing WVSP into the future. Thus the evaluation of the no project alternative is the evaluation of projected impacts that would occur under the existing WVSP. Therefore, under this alternative the project area would remain in its existing condition, and the proposed CHCCSP would not be implemented. The current specific plan would remain in effect as shown in Exhibit 6-1, *Existing Land Use Designations*.

In order to develop a site in the project area, individual property owners are required to conduct protocol surveys for DSF (for two consecutive years) and if DSF individuals or suitable habitat for DSF is found on a project site, the property owner must mitigate for the loss by either setting aside a portion of the property in conservation or by purchasing credits in the Mitigation Bank. As discussed previously under Alternatives Considered and Rejected, the cost of an acre of mitigation land is $250,000. Therefore, the City determined that the most appropriate course of action was to initiate the HCP process for the area north of the I-10

freeway.

Reduced Retail/Retail Mixed Use, add Additional Residential and Open Space/Park Alternative

The second alternative considered in this analysis is similar to the original amendment to the WVSP proposed in 2008 that has been revised to reflect the conservation areas identified in the CHCCSP. This is because the mix of uses in the original specific plan amendment included 1,293 dwelling units along with a mix of non-residential land uses, thus providing more opportunities for residents to live, work and shop in a walkable community. Under this alternative, the existing golf course (west side of Planning Area 16) and the adjacent Planning Area 9 would be redesignated to Residential High (RES-H) which allows 18-25 dwelling units per acre. Using a median of 22 dwelling units per acre, this alternative would result in up to 880 new RES-H dwelling units for a total of 1,253 units, 40 units less than in the original proposed WVSP amendment. Exhibit 6-2, *Alternative Land Use Plan*, shows this alternative. This alternative adds an additional 6 acres of park space to Planning Area 12, and when added to the proposed 3.8 acres of park space in Planning Area 12 and the linear open space feature in Planning Area 14 at 0.6 acre, the proposed park space would be approximately 10.4 acres. This would replace the existing 10-acre George Brown Park currently located in Planning Area 13 that is identified for residential uses in the CHCCSP. When combined with the required Quimby fees that must be paid by new development, the significant impact to Public Services with regard to parks would be reduced to a less than significant level in this alternative.

6.4.1 Alternative 1 - No Project – Development Under the Existing WVSP Alternative

Under the No Project - Development Under the Existing WVSP Alternative (no project alternative), no amendment to the WVSP would be implemented and existing conditions in the project area would likely remain unchanged in the near term. This alternative also assumes that no West Valley HCP will be adopted by USFWS. Development could occur under the existing WVSP but because the existing specific plan does not include a project area-wide HCP for DSF, it would remain the responsibility of individual project applicants to negotiate Incidental Take Permits for their project sites. This has been the single most deterrent to development in the project area. Under this alternative, DSF habitat would likely continue to deteriorate due to blighted conditions and because development of small individual conservation areas similar to those existing in and adjacent to the project area have been shown to be less desirable to USFWS because it results in fragmentation of the habitat and makes it less likely that DSF can survive and thrive. In addition, vacant parcels have been used for illegal dumping, homeless encampments and unauthorized off-road use. Development of some site could occur, particularly those that are already developed with

urban uses by the property is either not being used or is underutilized. These properties would not be anticipated to require consultation with USFWS if it can be established that there is no DSF habitat on site.

Under existing conditions there are four projects currently proposed for development:

- A new service station and shopping, a restaurant complex at the southwest corner of Valley Boulevard and Pepper Avenue;
- The adaptive reuse of the vacant Moss Brothers Dealership on Valley Boulevard west of Pepper Avenue;
- A health club/retail center at the northwest corner of Valley Boulevard and Pepper Avenue;
- Reuse of the former "King is Coming" television production studio at the southwest corner of San Bernardino Avenue and Pepper Avenue, as the Center for Employment Training.

The first two projects are proposed on sites that are currently developed and are outside the West Valley HCP boundaries and thus are not subject to the USFWS requirements related to conservation of DSF habitat. The third project is proposed on undeveloped property where two consecutive years of protocol surveys have been conducted for DSF with negative results.

The WVSP project area includes 13 planning areas for Open Space, Business Industrial Park, Regional Retail, and Hospitality/Retail/Medical Support. No residential uses were proposed. Open space uses consists of the existing 10-acre park at the intersection of San Bernardino Avenue and Eucalyptus Avenue; the 49-acre golf course on Valley Blvd; and the 30-acre cemetery east of Hermosa Avenue. The WVSP included the Arrowhead Regional Medical Center (ARMC) with a land use designation of Business/Industrial Park.

For the purposes of evaluating this alternative, 135 acres of the 402-acre WVSP project area could be developed in the future with the remaining properties already developed or that would be set aside in conservation. The breakdown is as follows:

- 215 acres have already been developed, including the ARMC site, existing roads, the golf course, public park, and approximately 50 percent of the cemetery.
- For planning purposes it is assumed that up **75** acres of the 127 acres identified as exhibiting habitat quality for DSF ranging from High to Low could ultimately be developed. Development would only occur after a project applicant undertakes the rigorous consultation process with the USFWS and

issuance of an Incidental Take Permit.

- This leaves approximately **60** acres of developable land that is not encumbered by existing development or otherwise affected by DSF habitat. That is, these areas do not exhibit any habitat value according to the West Valley HCP.
- Properties that are already developed in the project area could be redeveloped with different land uses that could be more intense, including multiple story buildings. However, since this is speculative, redevelopment of existing developed properties was not considered in the evaluation of the no project alternative.

Development under the WVSP would consist of 60 acres that would not require consultation with USFWS for DSF, and an additional 75 acres after consultation with USFWS is completed and Incidental Take Permits are issued. Therefore, a total of 135 acres could be developed under the WVSP. The acreage is divided into two land uses spread around the planning areas where development would occur, Business/Industrial Park (115 acres) and Hospitality Retail/Medical Support (20 acres).

Using the same floor area ratio as was used to evaluate the proposed project of 0.25, a total of 1.25 million square feet of Business/Industrial Park (BIP) uses and 217,800 square feet of Hospitality Retail/Medical Support (HRM) could be developed. By contrast, buildout under the proposed CHCCSP would result in 275 residential units and up to 2.4 million square feet of non-residential land uses. The difference is approximately 929,850 square feet less non-residential uses than under the CHCCSP. For the purposes of this analysis, the difference has been rounded up to 930,000 square feet.

Impact Analysis

Aesthetics, Light, and Glare

Under this alternative, approximately 930,000 square feet of non-residential uses would not be developed in the project area, and no new residential units would be developed. The proposed CHCCSP's impacts on visual character were found to be less than significant because the CHCCSP includes a mix of land uses that are internally compatible and compatible with adjacent land uses. Scenic vistas would not be adversely affected because future development projects would not block existing views of the mountains and valley floor from public areas such as the I-10 freeway. The No-Project –Development Under the WVSP Alternative would result in less development overall, but more of the larger big box business park uses with less of a mixed use component than under the CHCCSP. The existing WVSP does not address the

City's vision for the project area to restore the sense of community, vibrancy and vitality of the small town atmosphere, including incorporating a broad range of uses all within walking distance from one another including shopping, restaurants, entertainment, hospitality, offices, housing, parks and open space. Instead, buildout under this alternative would likely result in a series of large tilt-up buildings surrounded by a sea of parking lots, similar to areas along the I-10 Freeway where similar business park developments have occurred. Therefore, this alternative would not be considered environmentally superior.

Air Quality

This alternative would result in less new development in the project area by approximately 930,000 square feet and non residential development. Land uses include business parks, retail, hospitality and medical office uses. The intent of the Business/Industrial Park designation is to encourage the development of large freestanding buildings with single tenants such as distribution warehouse facilities. However, commercial retail and office uses are also allowed under this designation. Such uses as restaurants, shops, hotels etc are allowed in the WVSP as well as medical office and commercial uses. Because this alternative would result in 930,000 square feet of non residential uses, no residential uses are proposed, and there is a larger open space component (existing golf course at 49 acres, and the public park at 10 acres to remain) air emissions associated with construction and operation of future projects would likely be less than under the proposed CHCCSP, but could still be significant and unavoidable depending on the types of uses and mix of those uses ultimately proposed.

Because this alternative would still result in the development in the project area project proponents would be required to implement mitigation measures similar to those identified for the proposed project, however, because this alternative would result in the development of 1.25 million square feet of Business/Industrial Park uses, and up to 217,800 square feet of hospitality and retail uses, this alternative may also result in significant unavoidable project related and cumulative impacts and is not considered to be environmentally superior.

Biological Resources

Under this alternative, the proposed HCP would not be implemented and development in the project area would be subject to meeting the criteria of the USFWS on a project-by-project basis. Without adoption of the proposed HCP and the CHCCSP, habitat in the project area would continue the trend to decline in quality and size due to illegal dumping. These areas could also be utilized by off-road vehicles users, (BMX bikes and dirt bikes) since they are not fenced. This has occurred in vacant areas south of the I-10 freeway. Future development of project sites would result in individual property owners setting aside portions of their sites for conservation, but as has been shown under existing conditions, small areas of conservation

have not been successful. There is one existing conservation area in the CHCCSP project area 4.5 acre site (Laing site) and two adjacent to the project area along Valley Blvd resulting in a total of 13.3 acres of existing conservation areas, that are isolated from other DSF habitat. Individual conservation sites like these would isolate existing individuals in place as they would not be able to migrate to other Delhi sand soils in the project area. Therefore, for Biological Resources, this alternative is not considered to be environmentally superior as it would not result in a comprehensive conservation program for DSF populations north of the I-10 Freeway.

Cultural Resources

The proposed project could have impacts on cultural resources if unknown resources are encountered during grading, but these impacts were determined to be reduced to less than significant levels through the implementation of recommended mitigation (i.e., resource surveys, recovery, and monitoring of grading). Because development would also occur under the WVSP, impacts to Cultural Resources would be similar and similar mitigation would apply to any development projects in the project area whether developed under the WVSP or the CHCCSP. Therefore, this alternative is not considered to be environmental superior.

Geology, Soils, and Seismicity

Under this alternative, development of business park and light industrial uses would be developed along with approximately 20 acres of hospitality and retail uses, with some medical office uses. Implementation of the CHCCSP would require all development projects to comply with established seismic codes and implementation of the recommended mitigation measures would reduce potential impacts of the project to less than significant levels. Development under the WVSP would be required to comply as well. Impacts would be slightly less under this alternative because it does not include a residential component so the approximately 983 residents that could live in the project area under the CHCCSP would not reside in the project area. Therefore, this alternative is only considered to be environmentally superior in that it would simply not expose residents to seismic events.

Greenhouse Gasses

This alternative would result in less new development in the project area by approximately 930,000 square feet and non residential development. Land uses include business parks, retail, hospitality and medical office uses. The intent of the Business/Industrial Park designation is to encourage the development of large freestanding buildings with single tenants such as distribution warehouse facilities. However, commercial retail and office uses are also allowed under this designation. Such uses as restaurants, shops, hotels etc are allowed in the WVSP as well as medical office and commercial uses. Because this alternative

would result in 930,000 square feet of non residential uses, no residential uses are proposed, and there is a larger open space component (existing golf course at 49 acres, and the public park at 10 acres to remain) GHG emissions associated with construction and operation of future projects would likely be less than under the proposed CHCCSP, but could still be significant and unavoidable depending on the types of uses and mix of those uses ultimately proposed.

Although future projects under the CHCCSP would still exceed the SCAQMD draft GHG threshold, the buildout scenario still meets the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard, compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction from BAU emissions. Because new projects in the project area under this alternative would also be required to be developed under the same standards, it is likely that this alternative would also meet the SANBAG GHG Reduction Plan. Buildout under this alternative, could result in approximately 1.47 million square feet of non-residential uses (business parks, hospitality and medical office uses). However, the existing WVSP does not address the City's vision for the project area to create a walkable pedestrian oriented community that would reduce vehicle trips so it is likely that this alternative would result in similar emissions of greenhouse gasses and therefore is not considered to be environmentally superior.

Hazards and Hazardous Materials

Under existing conditions there are some known PECs and RECs at existing sites that are identified in the Phase I ESA prepared for the proposed project. Some current legacy businesses may have been in operation long before the adoption of statutes and regulations concerning hazardous waste and remediation would only be required under property ownership change or if it had been determined that contaminates had affected water, soils and air beyond the property site. In addition the undeveloped/vacant lands in the project area attract illegal dumping that could include the possibility of hazardous waste. Implementation of new development projects either under the CHCCSP or the WVSP would include implementation of mitigation measures that would remediate existing environmental conditions and reduce potential impacts to a level of less than significant. Therefore, for Hazards and Hazardous Materials, this alternative is similar to the proposed project and not environmentally superior.

Hydrology and Water Quality

This alternative would include the necessary on-site and off-site drainage infrastructure required of any development area in order to eliminate potential impacts of development on water quality, onsite drainage, and downstream waterways. Compliance with regulatory requirements for construction Best Management Practices (BMPs), as well as implementation of BMPs through Water Quality Management Plans as required by the City as a co-permitee on the County's NPDES permit would ensure that all water quality impacts are reduced to less than significant levels for development under either the WVSP or the CHCCSP. Therefore, for Hydrology and Water Quality, this alternative would be similar and is not considered to be environmentally superior.

Land Use

Under this alternative, the proposed CHCCSP mixed-use project would not be implemented and the creation of a walkable community would not occur. Instead, development under this alternative would result in some freeway commercial uses including hotels and retail, some medical office uses, and several acres of business park uses that could consist of a combination of light industrial, manufacturing and office uses. No residential component is included in this alternative, so the opportunity for residents to live close to employment and shopping opportunities would not exist. Therefore, for Land Use, this alternative is not considered to be environmentally superior because it would not lead to the development of a walkable pedestrian oriented community where people can live, work, shop and play.

Mineral Resources

Under this alternative, the project area would be developed with approximately 1.47 million square feet of non-residential uses. The proposed project's impacts on mineral resources were found to be less than significant because the CHCCSP project area is in an area that has been classified as MRZ-3, which is an area where the significance of mineral deposits cannot be evaluated from available data. Accordingly, there is no evidence, which indicates that the project area contains any mineral resource that could be of value on a regional or State level. Additionally, the project area is located in an area where the extraction and processing of minerals would create a significant impact to sensitive receptors, including the Arrowhead Regional Medical Center located directly adjacent to the project site and surrounding residential uses. Therefore, the likelihood of extracting unknown significant mineral resources residing on the project area is very low regardless of the adopted Land Use Plan.

Noise

This alternative would result in the development of close to 1.47 million square feet of retail,

office, and industrial and business park uses in the project area. Similar to the proposed project, new uses in the project area as well as in the adjacent Gateway Specific Plan project area in the City of Rialto has the potential to generate noise in excess of applicable standards as described in Section 4.12, *Noise*. Construction activities would be required to implement mitigation measures similar to the proposed project that would reduce short-term noise impacts to less than significant levels. For long term operation of projects, the CHCCSP includes design standards and development regulations that address land use compatibility that include setbacks from sensitive receptors, installation of walls at property lines, siting of HVAC units, etc. Buildout under the No Project – Development Under the WVSP would be in accordance with applicable standards in the City's Municipal Code. No specific requirements for new development in planning areas near the ARMC were considered under this alternative. However, it is likely that the City would still require project applicants to consider proximity to the ARMC in their development plans related to building siting and setback. This alternative would have less impacts on other sensitive receptors since there are no residential uses proposed under the WVSP. Therefore this alternative is considered to be environmentally superior.

Population and Housing

The proposed project would result in the development of approximately 275 residential units and approximately 965 new residents. The No Project – Development Under the WVSP would not provide any new residential units in the project area as the WVSP called for a mix of retail, business/industrial park and retail uses, as well as open space for the golf course, park and cemetery (part of the adopted WVSP but not a part of the CHCCSP). The No Project – Development Under the WVSP would be inconsistent with the recently adopted General Plan which assumes that some residential development will occur in the project area. The No Project – Development Under the WVSP would also be inconsistent with SCAG's goals and policies for cities to provide housing for existing and future residents. Therefore, for Population and Housing this alternative is not considered to be environmentally superior.

Public Services and Recreation

This alternative would result in the retention of the George E. Brown, Jr. Park and the Colton Golf Club. In addition, the WVSP does not include proposed residences; so there would be few impacts to schools libraries or parks. Because the No Project – Development Under the WVSP would have less impacts on public services and recreation than the proposed CHCCSP it is considered to be environmentally superior.

Traffic and Circulation

Under the No Project – Development Under the WVSP, future projects that could still be

developed. Approximately 1.47 million square feet of non-residential development would likely result in similar impacts to intersections and roadway segments. All development would be required to contribute fair share contributions to intersection and roadway improvements that would reduce impacts to less than significant levels. However, this alternative does not address the City's vision for the project area to become a walkable pedestrian oriented community where residents, employees and visitors would be encouraged to park their cars and walk. Nonetheless, because buildout under this alternative would be approximately 930,000 square feet of non-residential uses traffic volumes would be reduced. Therefore, the No Project – Development Under the WVSP is considered to be environmental superior.

Utilities and Services Systems

The No Project – Development Under the WVSP would result in similar impacts to Utilities and Service Systems with regard to improvements to infrastructure (streets, storm drains, water and wastewater lines) because these improvements must be made regardless of the number of square feet developed. However, the proposed project includes 275 new residential units that when combined with the nonresidential uses, would result in greater water use, wastewater generation, solid waste generation and energy usage. The proposed project's wastewater and storm drainage impacts were determined to be less than significant and, therefore, the No Project – Development Under the WVSP would have less than significant impacts on these utility systems as well. This alternative would likely result in a substantial reduction in construction waste generation because it is assumed that most existing structures in the project area would remain in place. There would also likely be a reduction in the generation of operational solid waste because there would be fewer tenants in 1.47 million square feet of development and there is no residential component under this alternative. Finally, while this alternative would likely have a lower demand for energy because there is no residential component and there is a 930,000 square foot reduction in non-residential development, it would still require the implementation of similar energy conservation measures through compliance with the California Green Building Code and California Building Code Title 24 standards for building construction to reduce potential impacts to a level of less than significant levels. The No Project – Development Under the WVSP would have impacts on utility systems but would be less than the proposed project. Therefore, for Utility Systems, this alternative is considered to be environmentally superior.

Conclusion

The No Project – Development Under the WVSP would be environmentally superior for issues such as geology/soils/seismicity, noise, public services, and utilities and services systems because this alternative would result in less non-residential development and no residential development that would reduce the number of people occupying the site on a daily basis. In

addition, because no demolition of existing structures was assumed in this alternative the amount of C&D solid waste generated would be reduced. With no residential uses proposed, there would be fewer impacts on schools and parks. Also, because there would be less development and no residential development, energy and water consumption would be lower.

Because development would still occur in the planning area, this alternative would be expected to have similar impacts on aesthetics/light/glare, air quality and green house gas emissions, cultural resources, hazards and hazardous materials, hydrology and water quality, and mineral resources. With regard to air quality and GHG emissions, because it is unknown at this time what types of uses would be developed under this alternative, and because this alternative includes a Business/Industrial Park designation on approximately 50 acres (whereas no industrial uses are envisioned in the CHCCSP), it could happen that air quality and GHG emissions would be significant and unavoidable after mitigation is implemented on a project by project basis, similar to the proposed project.

Impacts on the environment that would likely be greater include impacts on biological resources because there would be no comprehensive HCP developed that would set aside larger areas of DSF habitat in permanent conservation. Other impacts that would likely be greater are related to Land Use and Population and Housing because the WVSP does not implement the City's vision for the project area to restore the sense of community, vibrancy, and vitality of the small town atmosphere, incorporating a broad range of uses all within walking distance of one another. These include shopping, restaurants, entertainment, hospitality, offices, housing, parks, and open space. The vision also includes a new main street stetting, new employment opportunities that are more diverse than under the WVSP, and establishing a new strong and diverse economic base.

The No Project – Development Under the WVSP overall, is not considered to be an environmentally superior alternative because:

1. This alternative does not adequately address the conservation of habitat for DSF and other sensitive species known to inhabit the project area to the extent that the proposed project would; and
2. This alternative has greater impacts on Land Use and Population because it fails to meet the City's objectives (see Section 6.2.3 above).
3. This alternative does not meet many of the project objectives to create a sense of community and sense of place, creation of a pedestrian friendly community, assuring that development adequately considers resource management, and implementation of the goals and policies of the General Plan concerning residential development and walkable communities.

6.4.2 Alternative 2 - Reduced Retail/Retail Mixed Use – Increased Residential Alternative

Exhibit 6-2, *Alternative Land Use Plan*, shows how the project area would be reconfigured to accommodate the additional residential uses and a larger Open Space/Park planning area. Table 6-4, *Project and Alternative 2 Land Use Comparison*, provides a comparison between the two land use plans. Table 6-5, *Project and Alternative 2 Land Use Comparison Sq Ft of Non Residential Uses*, is a comparison between the two land use plans for non residential uses.

This alternative is similar to the original amendment to the WVSP proposed in 2008, that has been revised to reflect the conservation areas identified in the CHCCSP. This is because the mix of uses in the original specific plan amendment included 1,293 dwelling units along with a mix of non-residential land uses, thus providing more opportunities for residents to live, work and shop in a walkable pedestrian oriented community than under the CHCCSP as currently proposed. Under this alternative, Planning Area 9, which is designated for 25 acres of RMU, would be redesignated as RES-H and combined with 19 acres currently located in Planning Area 16 which is designated as Retail, to form a 44-acre Planning Area 9. An additional 6 acres of Planning Area 16 would be combined with Planning Area 12 in order to create 9.8 acres of

park space and when combined with Planning Area 14's 0.6 acres would result in 10.4 acres of park space. Planning Area 16 would be reduced in size to 60.2 acres of Retail use.

Alternative Planning Area 9 could be developed with 880 high density residential units at 22 du/ac and could be a mix of condominium/townhouse residences as well as apartments. Alternative Planning Area 16 would be developed with a mix of retail uses in 49.2 acres, reduced from 68.1 acres.

Table 6-4: Project and Alternative 2 Land Use Comparison

Proposed Land Use/Density			CHCCSP DU/Acreage[1]	Alternative 2 Project DU/Acreage[1]
Residential				
RES-M	(Medium)	4 du/ac	108 DU/ 26.9 ac	108 DU/ 26.9 ac
RES-M-1	(Medium-1)	11 du/ac	167 DU/ 15.2 ac	167 DU/ 15.2 ac
RES-H	(High)	22 du/ac	--	880 DU/ 44 ac
		Total	**275 DU/42.1 ac**	**1,253 DU/86.1 ac**
Commercial				
R	(Retail)		79.2 ac	60.4 ac
RMU	(Retail Mixed Use)		68.8 ac	43.8 ac
OMU	(Office Mixed Use)		23.6 ac	23.6 ac
BP	(Business Park)		51.7 ac	51.7 ac
		Total	**223.3 ac**	**179.5 ac**
Open Space				
OS/P	(Open Space / Parks)		4.5 ac	10.4 ac
OS/H	(Open Space / Habitat)		50.0 ac	50.0 ac
		Total	**54.5 ac**	**60.4 ac**
Other				
Major Street Right-of-Way			53.2 ac	53.2 ac
TOTALS			**275 DU/ 373.20ac**	**1,253 DU/ 373.2 ac**

Source: CHCCSP, 2014

Notes:

1. The Draft West Valley HCP use approximately 50 acres of habitat conservation area while the CHCCSP uses 48.4. Throughout the EIR the 50-acre set aside for habitat conservation has been used to be consistent with the West Valley HCP and WVHCP Environmental Assessment. To make up the difference, the 1.6 acres have been deducted from the Major Right-of-Way category.

Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in a similar buildout scenario as under the CHCCSP because the mix of land uses would be similar with only planning areas 9, 12 and 16 being affected. The proposed project's impacts on the visual character of scenic vistas were found to be less than significant with mitigation and buildout under this alternative would required compliance with these measures as well. These measures include submittal of landscape and lighting plans for review by City staff in order to ensure that new development adheres to the design guidelines

Table 6-5: Project and Alternative 2 Land Use Comparison Sq Ft of Non Residential Uses

Land Use	CHCCSP Non Residential Development		Alternative 2 Non Residential Development		Difference
	Acres	Square Feet[1]	Acres	Square Feet[1]	
R	79.2	862,488	60.4	657,756	204,732
RMU	68.8	749,232	43.8	476,982	272,250
OMU	23.6	257,004	23.6	257,004	0
BP	51.7	563,013	51.7	563,013	0
Total[2]	**223.3**	**2,431,737**	**179.5**	**1,954,755**	**476,982**

Notes:

1. Assumes a Floor Area Ratio of 0.25 for development of non residential land uses. That is, 25 percent of a site would be developed with structures, the remaining site area would consist of parking lots, driveways, landscaping, loading areas, etc.
2. Difference is an approximately 20 percent reduction in the amount of non residential use that would be developed in the project area, and an additional 880 dwelling units.

and development standards set forth in the CHCCSP.

For planning areas around the ARMC, these plans must also be submitted to the County of San Bernardino for review to ensure compatibility with the ARMC. Therefore, this alternative would also have similar impacts as the CHCCSP.

Air Quality

This alternative would result in the development of close to 1.95 million square feet of retail, office, and business park uses for a reduction of approximately 20 percent over the proposed CHCCSP. The difference is represented by an increase in the number of dwelling units from 275 to 1,253. Construction emissions associated with the project would occur and be substantial; mitigation in the form of construction air pollution control measures would be required, but similar to the proposed project, because of the size and intensity of this alternative, impacts would not be reduced to a level of less than significant. Therefore, like the proposed project construction air emissions would be significant and unavoidable under this alternative. From an operational emissions perspective, this alternative would be similar to the proposed project. This alternative would also have a significant and unavoidable cumulative air quality impact. In summary, this alternative would result in the same significant unavoidable air quality impacts associated with the proposed project.

Biological Resources

Under this alternative, the amount of Open Space/Habitat for DSF would be the same as for the proposed project. Implementation of mitigation measures in the West Valley HCP and would also reduce impacts of this alternative to a level of less than significant. Habitat for DSF set aside in conservation areas (planning areas 3, 6, 11, and 18) as well as conservation areas

on adjacent sites (on Valley Blvd and in the cemetery) would also provide habitat for other sensitive species that may inhabit the vacant parcels making up the conservation planning areas. Therefore, although this alternative would have impacts on biological resources similar to the proposed project, the impacts can be mitigated to less than significant levels for both the project and this alternative.

Cultural Resources

Because the project area contains undeveloped land, this alternative would have the potential to impact unknown buried cultural resources and would require mitigation similar to the proposed project. The implementation of mitigation measures identified in Section 4.5, *Cultural Resources*, would also apply to this alternative and would reduce impacts to less than significant levels. Therefore, this alternative would have impacts on cultural resources similar to the proposed project and these impacts would be less than significant when mitigation measures are implemented.

Geology, Soils, and Seismicity

Because urban development would occur in the project area with the proposed project or this alternative, this alternative would also have the potential to create erosion during construction and expose persons or structures to hazards associated with seismic activity during long term operation. As such, this alternative would require mitigation similar to the proposed project as outlined in Section 4.6, *Geology and Soils*, the implementation of which would reduce impacts to less than significant levels. Therefore, this alternative would have impacts on geology, soils, and seismicity similar to the proposed project and these impacts would be less than significant when mitigation measures are implemented.

Greenhouse Gasses

This alternative would result in new development in the project area similar to the proposed project. Development under this alternative would result in a net reduction in non residential land uses of approximately 479,160 square feet and an increase of 880 dwelling units. This would reduce the generation of GHG incrementally since a reduction in non-residential land uses would result in a reduction in vehicle trips as well as the generation of GHG for HVAC and other operations. The introduction of an additional 880 dwelling units would incrementally increase GHG associated with space and water heating, as well as vehicle trips, however, by developing additional residential uses in a “walkable” “bikeable” community designed to get people out of their cars, would lower vehicle trips when compared to more conventional suburban neighborhoods. Under this alternative, development projects would also be designed to meet the percent reduction threshold called for in the SANBAG GHG Reduction Plan. With mitigation, compliance with regulations (such as Pavley, the Renewable Energy Standard,

compliance with Green Building Standards and 2013 Title 24 standards [approximately 30 percent more efficient than 2008 Title 24 standards] etc.), and sequestration from the planting of at least 2,551 new trees in the CHCCSP project area, year 2020 emissions would be reduced by 50.8 percent from BAU emissions; which meets the SANBAG GHG Reduction Plan threshold of a 15 percent reduction from BAU emissions. Therefore, for GHG, this alternative is considered to be environmentally superior.

Hazards and Hazardous Materials

As described in Section 4.8, *Hazards and Hazardous Materials*, there are sites in the project area that are existing potential environmental concerns (PECs) due to the nature of the businesses observed during field visits for the Phase I ESA. These PECs include underground and above ground storage tanks, and other industrial uses. Similar to the proposed project, this alternative may also result in the redevelopment of these properties with other uses. Project proponents would be required to conduct site specific Phase ESAs that may result in requirement to remediate a site prior to construction of any new uses (mitigation measure HAZ – 1). Other mitigation measure for hazardous materials would also apply to these sites. In addition, there is the possibility that future land uses in the project area could use hazardous materials and would be required to adhere to local, State and federal regulations for the appropriate transportation, use, storage and disposal of hazardous materials whether the proposed project or the alternative would be implemented. Therefore, this alternative would have impacts on hazards and hazardous materials similar to the proposed project, but with the implementation of mitigation measures identified in Section 4.8, impacts would be less than significant.

Hydrology and Water Quality

Because urban development would occur in the project area, this alternative would have the potential to create water quality and drainage problems in downstream waterways similar to the proposed project. As such, this alternative would require mitigation similar to the proposed project, the implementation of which would reduce impacts to less than significant levels. In addition, like under the proposed project, new development projects in the project area under this alternative would also be required to develop and implement SWPPPs and WQMPs in compliance with existing water quality regulations. Therefore, this alternative would have impacts on hydrology and water quality similar to the proposed project and with implementation of appropriate mitigation measures, impacts can be reduced to less than significant levels.

Land Use and Planning

Similar to the proposed project, this alternative would amend the existing Specific Plan

designations for the project area to allow for a more diverse mix of land uses to address the City and SCAGs goals to create sustainable communities where reliance on automobiles can be reduced and people can work, live and recreate within a relatively close area that encourages walking, biking and other means of nonmotorized transportation. All land in the project area is expected to be developed except where planning areas have been designated for Open Space/Habitat uses, and would be consistent with applicable Specific Plan design standards and development regulations. Therefore, this alternative would have impacts on land use similar to the proposed project which can be reduced to less than significant levels with implementation of mitigation measures outlined in the Aesthetics, Land Use, Public Services sections of the EIR. However, this alternative better represents the City's vision and thus the goals of the CHCCSP to provide a more sustainable community by creating a walkable pedestrian oriented community that provides greater synergy by increasing the number of residents in close proximity to shops, offices, business parks, and most important, the ARMC which employs over 3,000 people. Therefore this alternative is environmentally superior to the proposed CHCCSP for Land Use and Planning.

Mineral Resources

Under this alternative, the project area would be developed with the exception of the conservation areas, similar to the proposed project. The proposed project's impacts on mineral resources were found to be less than significant because the CHCCSP project area is in an area that has been classified as MRZ-3, which is an area where the significance of mineral deposits cannot be evaluated from available data. Accordingly, there is no evidence, which indicates that the project area contains any mineral resource that could be of value on a regional or State level. Additionally, the project area is located in an area where the extraction and processing of minerals would create a significant impact to sensitive receptors, including the Arrowhead Regional Medical Center located directly adjacent to the project site and surrounding residential uses. Therefore, the likelihood of extracting unknown significant mineral resources residing on the project area is very low. This is also true of the proposed project.

Noise

This alternative would result in the development of close to 1.95 million square feet of retail, office, and business park uses as well as 1,253 dwelling units in the project area. Similar to the proposed project, this alternative would also cluster the residential uses near each other on the west side of the project area along with the public park and habitat conservation planning areas. Similar to the proposed project, new nonresidential uses in the project area as well as in the adjacent Gateway Specific Plan project area in the City of Rialto has the potential to generate noise in excess of applicable standards as described in Section 4.12, *Noise*.

Construction activities would be required to implement mitigation measures similar to the proposed project that would reduce short-term noise impacts to less than significant levels. For long term operation of projects, the CHCCSP includes design standards and development regulations that address land use compatibility that include setbacks from sensitive receptors, installation of walls at property lines, siting of HVAC units, etc. In addition, similar to the proposed project, applicants in planning areas near the ARMC under this alternative would have development plans reviewed by the County of San Bernardino as well as the City of Colton. Therefore, this alternative would have similar noise impacts as the proposed project, which can be reduced to less than significant levels with implementation of mitigation measures.

Population and Housing

This alternative would increase the number of dwelling units in the project area from 275 to 1,253 thus providing additional housing opportunities in the City of Colton. The proposed housing types would range from single family homes in the RES-M planning areas to condominium/townhomes and multifamily apartments in the RES-H planning area. Similar to the proposed project, this alternative would not displace existing housing or population. However, because this alternative represents an increase of 880 dwelling units and provides a mix of housing types, it would assist the City with its goal of providing housing for future residents to the project area that may otherwise go elsewhere in the City to find housing. This alternative would also allow more local residents to take advantage of opportunity to be part of a "Smart Growth" community reducing commuting time and costs allowing for an improved quality of life over the traditional suburban lifestyle that often requires long commutes and less time spent locally. This is because, under this alternative, the City's goals to provide a walkable pedestrian oriented community where people can live, work, shop and play, and be within walking distance of several new office complexes, business parks and the ARMC which employs over 3,000 people, would be better met by providing a greater number of local residents than under the proposed project. Therefore, this alternative would have less impact on population and housing relative to the proposed project, because a greater number of dwelling units can be provided in close proximity to related land uses.

Public Services

This alternative would result in approximately 1.95 million square feet of nonresidential land uses and 1,253 new dwelling units. Because this alternative would contain residential uses and generate employment opportunities, it would result in correspondingly higher impacts on public services and recreation through more calls for service, student generation, and park usage. This alternative would generate new students that would be attending schools in the

Table 6-6 Projected Number of Students Under Alternative 2

School Type	Student Generation Factor (Student/Unit)	Number of Units Proposed	Students Generated
Detached Units			
Elementary (K-5)	0.31	108	33.48
Middle (6-8)	0.18	108	19.44
High (9-12)	0.18	108	19.44
Attached Units			
Elementary (K-5)	0.31	1,145	354.95
Middle (6-8)	0.17	1,145	194.65
High (9-12)	0.21	1,145	240.45
Total			**862.41**

Source: Rialto Unified School District School Facility Need Analysis, 2013

Rialto Unified School District (RUSD). Based on RUSDs student generation rates, the 1,253 new dwelling units would generate 862 additional students as shown in Table 6.6, *Projected Number of Students Under Alternative 2.*

In addition, new residents would generate a need for additional park facilities. Under this alternative, the project would not reduce the amount of existing park space in the City, only redistribute the space from its existing location at the intersection of San Bernardino Avenue and Eucalyptus Avenue. Whereas, under the proposed project, the amount of park space would be reduced from the existing 10-acre park to 4.4 acres (including the land bridge) for a net loss of 5.95 acres of park space. Under the proposed project, 275 new dwelling units would generate approximately 963 new residents (3.5 residents per dwelling unit), while alternative 2 could generate approximately 4,385 new residents. Thus, Alternative 2 would generate the need for an additional 4.3 acres of new park space in the City. In either the proposed project or the alternative, Quimby fees for new parks would mitigate this impact. However, under Alternative 2, there is no net loss of park space as there is under the proposed alternative. Therefore, Alternative 2 would eliminate the significant project related impact on parks associated with the proposed project

For other public services, development impact fees and the requirement by both the Police and Fire departments to locate new stations within the project area would be required. Therefore, this alternative would have impacts on public services and recreation similar to the proposed project, except for impacts to public schools where the number of students would increase from 188 new students to 853 new students. However, because payment of impact fees is used to mitigate impacts to public services, this too would result in a less than significant impact.

Alternative 2 would have impacts on public services that can be mitigated to less than

significant levels through the payment of development impact fees, including fees for public schools, and the understanding that the Police and Fire departments will be working with future developers to site new stations in the project area. Therefore, this alternative is considered to be environmentally superior because it would eliminate the significant environmental impact on parks, while still mitigation impacts on other service providers through the payment of development impact fees.

Traffic and Circulation

This alternative would result in 1,253 dwelling units and 1.95 million square feet of nonresidential land uses. This represents a reduction of approximately 476,982 square feet of nonresidential land uses when compared to the proposed project. Because the proposed project and this alternative would be developed with an emphasis on walkability and less dependence on automobiles, the reduction in the amount of non-residential land use would result in a reduction in the number of vehicle trips. However, under the proposed project, in the future, all impacts to intersections can be mitigated to less than significant levels through improvements made and paid for by fair share contributions from all future development projects in the study area. Therefore, similar to the proposed project, with implementation of mitigation measures, including fair share contributions from new development projects, impacts would be reduced to less than significant levels.

Utilities and Service Systems

Water and Wastewater

The nonresidential development intensity of this alternative would have less of a demand for potable water relative to the proposed project because it represents a reduction of 476,982 square feet, but an increase of 1,078 dwelling units. Table 6-7, *Water Consumption/Wastewater Generation Proposed Project and Alternative 2*, shows the difference between the two buildout scenarios. The difference between the two scenarios is an increase in water consumption of 360,743 gpd and an increase in wastewater generation of 264,797 gpd in Alternative 2 over the proposed project.

Table 6-8, *C&D Solid Waste Generation Proposed Project vs Alternative 2*, shows that alternative 2 would result in the generation of less C&D material during construction. Table 6-9, *Operational Net Solid Waste Generation,* shows that under Alternative 2, due to the increase in the number of dwelling units the amount of solid waste generated would be greater than under the proposed project

Table 6-7 Water Consumption/Wastewater Generation Proposed Project and Alternative 2

Land Use	Size[1]	Consumption/ Generation Rates (GPD)		Water Consumption (GPD)	Wastewater Discharge (GPD)[2]
		Water	Wastewater		
Proposed Project					
Residential	275 du	400 per unit	300 per unit	110,000	82,500
Retail	79.2 acres	75/1,000 SF	60/1,000 SF	64,687	51,750
RMU	68.8 acres	75/1,000 SF	60/1,000 SF	56,190	44,952
OMU	23.6 acres	75/1,000 SF	60/1,000 SF	19,275	15,420
BP	51.7 acres	67.5/1,000 SF	60/1,000 SF	38,002	30,402
Park[3,4]	4.5 acres	N/A	N/A	3,650	--
			Total	**291,804**	**225,024**
Alternative 2					
Residential	1,253 du	400 per unit	300 per unit	501,200	375,900
Retail	60.2 acres	75/1,000 SF	60/1,000 SF	49,331	39,465
RMU	43.8 acres	75/1,000 SF	60/1,000 SF	35,774	28, 619
OMU	23.6 acres	75/1,000 SF	60/1,000 SF	19,275	15,420
BP	51.7 acres	67.5/1,000 SF	60/1,000 SF	38,002	30,402
Park[3,4]	10.5 acres	N/A	N/A	8,515	--
			Total	**652,547**	**489,821**
			Difference	**+360,743**	**+264,797**

Source: Rates interpolated from County of San Luis Obispo, Development Impact Fee Study, 2013.
Water rates for park use from Kim Rhodes, ASLA, Personal Communication March 18, 2014.
Water rate for residential use from USEPA website http://www.epa.gov/WaterSense/pubs/indoor.html

Notes:

1. Assumes a Floor Area Ratio of 0.25 for all non-residential land uses.
2. Assumes 75 percent of water usage becomes wastewater, with the remaining 25 percent going to landscaping, or other uses where water is not directed into a sewer system.
3. Assumes landscaped area is 50% turf and 50% shrubs, not including parking lot sidewalks and other hardscape.
4. Wastewater generated in the neighborhood park would be limited to incidental restroom use by visitors.
5. Storm Drains
6. With regard to the existing storm drain system and required upgrades, both scenarios would be similar because both are based on the development of the project area with urban uses.
7. Solid Waste

However, these are raw numbers and do not take into account the State mandated 50 percent diversion from landfills that the City of Colton is meeting through recycling programs. Mitigation measures USS-1 requires that contractors prepare and implement recycling plans that show how construction and demolition debris will be diverted from landfills through reuse of materials or transporting to recycling facilities C&D material can be sorted, crushed and reused.

Table 6-8 C&D Waste Generation Proposed Project vs Alternative 2

Activity	Type	Waste Generation Rate	Square Footage	Total
Proposed Project				
Demolition	Nonresidential	155 pounds/square foot	3,705,065[1]	287,142 tons[3]
Construction	Nonresidential	3.89 pounds/square foot	2,431,737	4,730 tons
	Residential	4.38 pounds/square foot	412,500[2]	903 tons
			Total	**299,439 tons**
Alternative 2				
Demolition	Nonresidential	155 pounds/square foot	3,705,065[1]	287,142 tons[3]
Construction	Nonresidential	3.89 pounds/square foot	1,954,755	3,802 tons
	Residential	4.38 pounds/square foot	1,706,100[4]	3,736 tons
			Total	**294,680 tons**
			Difference	**- 4,759 tons**

Source: U.S. Environmental Protection Agency, 1998.

Notes:

1. Estimated based on aerial imagery analysis and does not included two major sites, McNellus Trucking and CSM Bakery Products. Estimate does include demolition of parking areas and other hardscape areas.
2. Estimated based on 1,500 SF residence x 275 DU.
3. 1 ton = 2,000 pounds.
4. Estimated based on 1,200 SF residence x 878 DU and 1,500 SF residence x 275 DU.

Likewise, the City and County have programs for recycling food waste, greenwaste, electronic waste and other materials that used to end up in landfills and have been successful in diverting the required 50 percent of solid waste from landfills. The State, through CalRecycle is studying ways to increase this diversion rate to 75 percent by 2020. Therefore, impacts on solid waste and the life of landfills can be reduced to less than significant levels through these programs even though generation of solid waste over during the life of the project under alternative 2 would be 1,651 tons per year greater than the proposed project.

Energy

Buildout under either the proposed CHCCSP land use plan or the alternative 2 land use plan, would result in usage of electricity and natural gas. The threshold for this topic is the wasteful use of energy and the mitigation is compliance with applicable building codes including the California Green Building Code (CALGreen) as well as Title 24 of the California Building Code. Generation rates for electricity and natural gas are taken from the CALEEMOD program used to calculate Air Quality and Greenhouse Gas emissions and impacts.

Table 6-9: Operational Net Solid Waste Generation

Net Solid Waste Generation[1]				
Land Use	**Size**	**Waste Generation Rate (pounds per day)**	**Daily Total (pounds)**	**Annual Total (tons)**
Residential (single family)	275 DU	12 lb/household	3,300	602
Retail	79.2 ac	13 lb/1,000 SF	11,212	2,046
Retail Mixed Use[2]	68.8 ac	5 lb/1,000 SF	3,745	667
Office Mixed Use[3]	23.6 ac	6 lb/1,000 SF	1,542	281
Business Park2	51.7 ac	5 lb/1,000 SF	2,815	514
Neighborhood Park[4]	4.5 ac	5lb/1,000 SF	1,045	191
		Total	**23,659**	**4,301**
Residential (single family)	1,253 DU	12 lb/household	15,036	2,744
Retail	60.4	13 lb/1,000 SF	8,551	1,561
Retail Mixed Use[2]	43.8	5 lb/1,000 SF	2,384	435
Office Mixed Use[3]	23.6 ac	6 lb/1,000 SF	1,542	281
Business Park2	51.7 ac	5 lb/1,000 SF	2,815	514
Neighborhood Park[4]	10.5 ac	5lb/1,000 SF	2,286	417
		Total	**32,614**	**5,952**
		Difference	**+8,955**	**+1,651**

Source: http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Institution.htm, accessed March 18, 2014
Notes:

1. Solid waste includes paper products, food waste, greenwaste, and other types of waste other than hazardous, or industrial.
2. Generation rates for non-residential uses are based on a generic mix of uses in the Mixed Use categories.
3. Generation rate for business park assumed a combination of office and light industrial uses.
4. Generation rate for neighborhood park uses the Retail Mixed Use rate because solid waste generated at a park would be a combination of paper products, foodwaste and greenwaste.

Table 6-10, *Energy Demands at Buildout Under the CHCCSP and Alternative 2,* shows the results for energy use under each scenario. Electricity usage in the CHCCSP is higher than under Alternative 2, however, usage of natural gas in the CHCCSP is lower than under Alternative 2. This is the result in the increase in residential uses and commensurate reduction in nonresidential uses in the project area under Alternative 2.

Under either scenario, development projects would be required to comply with California Green Building Standards which went into effect in 2011. The CALGREEN regulations cover planning and design, energy efficiency, water efficiency and conservation, material conservation, and resources efficiency.

Table 6-10: Energy Demands at Buildout Under the CHCCSP and Alternative 2

Land Use	Buildout (DU or SQFT)	Demand (Per Month)	
		Electricity (kWh)	Natural Gas (cubic feet)
Proposed Project			
Residential	275	88,550	481,965
Retail	862,488	3,467,201	2,587,464
RMU	749,232	3,011,912	2,247,696
OMU	257,004	1,033,156	771,012
BP	563,013	2,263,312	1,689,039
Total	**2,431,737**	**9,864,131**	**7,777,176**
Alternative 2			
Residential	1,253	403,466	2,196,008
Retail	657,756	2,644,179	1,973,268
RMU	476,982	1,917,468	1,430,946
OMU	257,004	1,033,156	771,012
BP	563,013	2,263,312	1,689,039
Total	**1,954,755**	**8,261,581**	**8,060,273**
Difference	**- 476,982**	**- 1,602,550**	**+ 283,097**

Source: The Altum Group, 2014, and CALEEMPD (California Emission Estimator Model).
Note: Demands were calculated using CALEEMod modeling tools.

Energy efficiency measures would apply to development under both scenarios and must result in maximizing energy efficiency in building that are constructed in the project area as well as appliances that would be installed in both commercial and residential buildings. Therefore, impacts on energy usage would be similar under the proposed CHCCSP and Alternative 2.

Conclusion

The Reduced Retail/Retail Mixed Use – Increased Residential Alternative would have similar impacts in the following areas: (1) Aesthetics, (2) Biological Resources, (3) Cultural Resources, (4) Geology and Soils, (5) Hazards and Hazardous Materials, (6) Hydrology and Water Quality, (7) Noise and Utilities and Service Systems. This is because all of the planning areas identified for development would experience development under the proposed project or this alternative.

For other areas, Alternative 2 would likely have less of an impact because this alternative provides an increase in the number of dwelling units in a project area that increases the number of people that would be taking advantage of the walkable, pedestrian oriented project area where people can live, work, shop and play. Alternative 2 would increase the number of residents from 963 (proposed project) to 4,385, thus, more residents would likely be foregoing their automobiles for the shorter trips that occur in typical residential communities. This would result in (1) fewer emissions of pollutants associated with motor vehicles (Air Quality),

(2) fewer GHG emissions associated with vehicle trips (GHG), and (3) fewer trips in automobiles (Traffic and Circulation). However, although this alternative could reduce vehicle trips by placing residents in close proximity to employment and retail opportunities, the emissions from the use of natural gas would likely be greater under the proposed project (see Table 6-10. Likewise, alternative 2 would result in an increase in water usage of approximately 360,743 gallons per day over the proposed project and generate an additional 264,797 gallons of wastewater per day.

For Land Use and Planning, and Population and Housing, alternative 2 would meet the General Plan goals and policies for Land Use Diversity and Compatibility, Economic Development, Sustainable Development and Building Practices, New Residential Neighborhoods, Mixed Use Districts, Open Space and Public Facilities to a greater extent than the proposed project because it provides a better mix of residential to nonresidential uses than the proposed project, by better implementation of the City's vision for creating a new "Hub" that is walkable and pedestrian oriented, where people can live, work, shop and play and creating quality development and a distinctive setting within the City.

For most categories relative to the proposed project and Alternative 2, implementation of mitigation measures identified in Chapter 4, would reduce impacts to less than significant levels. Because the alternative would result in an additional 1,078 dwelling units, impacts on Public Services would be greater for schools, and impacts on Utilities with a greater generation of solid waste, energy consumption, water use and wastewater generation. These impacts can be reduced to less than significant levels by the payment of development impact fees under either scenario. However, under the proposed project, a significant impact on Public Service – Parks would occur with the removal of the existing 10-acre George Brown Park, and the addition of a new park at less than half the size, in a City that already experiences a deficit in park space for its residents. Under this alternative, a new 10.5-acre park would be developed and the payment of Quimby fees by new development would result in a less than significant impact on Public Service – Parks.

- Although alternative 2 would have less of an impact on the environment with regard to some environmental issues, for others such as Air Quality and GHG emissions, impacts would remain significant and unavoidable for both construction and operation due to the size of the project area and amount of new development that could occur. This alternative would eliminate the significant unavoidable impact on Public Service – Parks by providing a new park of equal or greater size than the park being eliminated and the payment of Quimby fees would be used to provide additional park services in the City. However, this alternative does not meet the project objectives to the same extent that the proposed CHCCSP would because it does not meet two of the objectives to the same extent, these are:Create a new

employment center for the City of Colton. Alternative 2 would not meet this objective to the same extent that the project would because it would result in less opportunities for employment than under the CHCCSP. Alternative 2 would replace 44 acres of a Business Park planning area (Planning Area 9) with residential uses, thus precluding the development of approximately 500,000 square feet non-residential uses that would generate employment opportunities and potentially revenue generating uses from being developed (based on an FAR of 0.25 over 44 acres).

Strengthen the City's economic base. Alternative 2 would replace 44 acres of Business Park uses that would likely include revenue generating uses such as service businesses (repair shops, photo finishing/reprographics, wholesale businesses), and retail uses (with a CUP). Thus, alternative 2 would not meet this objective to the same extent as the proposed project.

6.5 Environmentally Superior Alternative

The environmental effects of each alternative in relation to the proposed project are summarized in Table 6-11, *Comparison of the Proposed CHCCSP to the Alternatives.* CEQA Guidelines Section 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 environmental impacts that are similar relative to the proposed project because both alternatives allow development of the project area.

The No Project – Development Under the WVSP would be environmentally superior for issues such as geology/soils/seismicity, noise, public services, and utilities and services systems because this alternative would result in less non-residential development and no residential development that would reduce the number of people occupying the site on a daily basis. I addition, because no demolition of existing structures was assumed in this alternative the amount of C&D solid waste generated would be reduced. With no residential uses proposed, there would be fewer impacts on schools and parks. Also, because there would be less development and no residential development, energy and water consumption would be lower.

Because development would still occur in the planning area, this alternative would be expected to have similar impacts on aesthetics/light/glare, cultural resources, hazards and hazardous materials, hydrology and water quality, and mineral resources.

Impacts on the environment that would likely be greater include impacts on biological resources because there would be no comprehensive HCP developed that would set aside larger areas of DSF habitat in permanent conservation. Other impacts that would likely be

greater are related to Land Use and Population and Housing because the WVSP does not implement the City's vision for the project area to restore the sense of community, vibrancy, and vitality of the small town atmosphere, incorporating a broad range of uses all within walking distance of one another. These include shopping, restaurants, entertainment, hospitality, offices, housing, parks, and open space. The vision also includes a new main street stetting, new employment opportunities that are more diverse than under the WVSP, and establishing a new strong and diverse economic base.

The Reduced Retail/Retail Mixed Use – Increased Residential Alternative would have similar impacts in most categories relative to the proposed project. This alternative provides the same conservation areas for DSF habitat, creates similar opportunities for high quality office, business, retail and hospitality uses and employment opportunities, and incorporates the Bus Rapid Transit options for people living working or visiting the area. This alternative contributes to the City's jobs/housing balance to a greater extent than does the proposed CHCCSP by providing a more diverse mix of land uses. This alternative would also eliminate the significant unavoidable impact on Public Services – Parks, and because the alternative offers a greater diversity in the mix of land uses than the proposed project by providing additional housing and increasing the opportunity for more City residents to live in a walkable pedestrian oriented community that would reduce residents dependence on motor vehicles. However, this alternative does not meets the City's objectives for the project area to the same extent that the project would by providing less employment opportunities and less potential revenue generated in planning area 9 which would be developed with residential uses instead of Business Park and Retail uses as it could under the proposed project.

Table 6-11 Comparison of the Proposed CHCCSP to the Alternatives

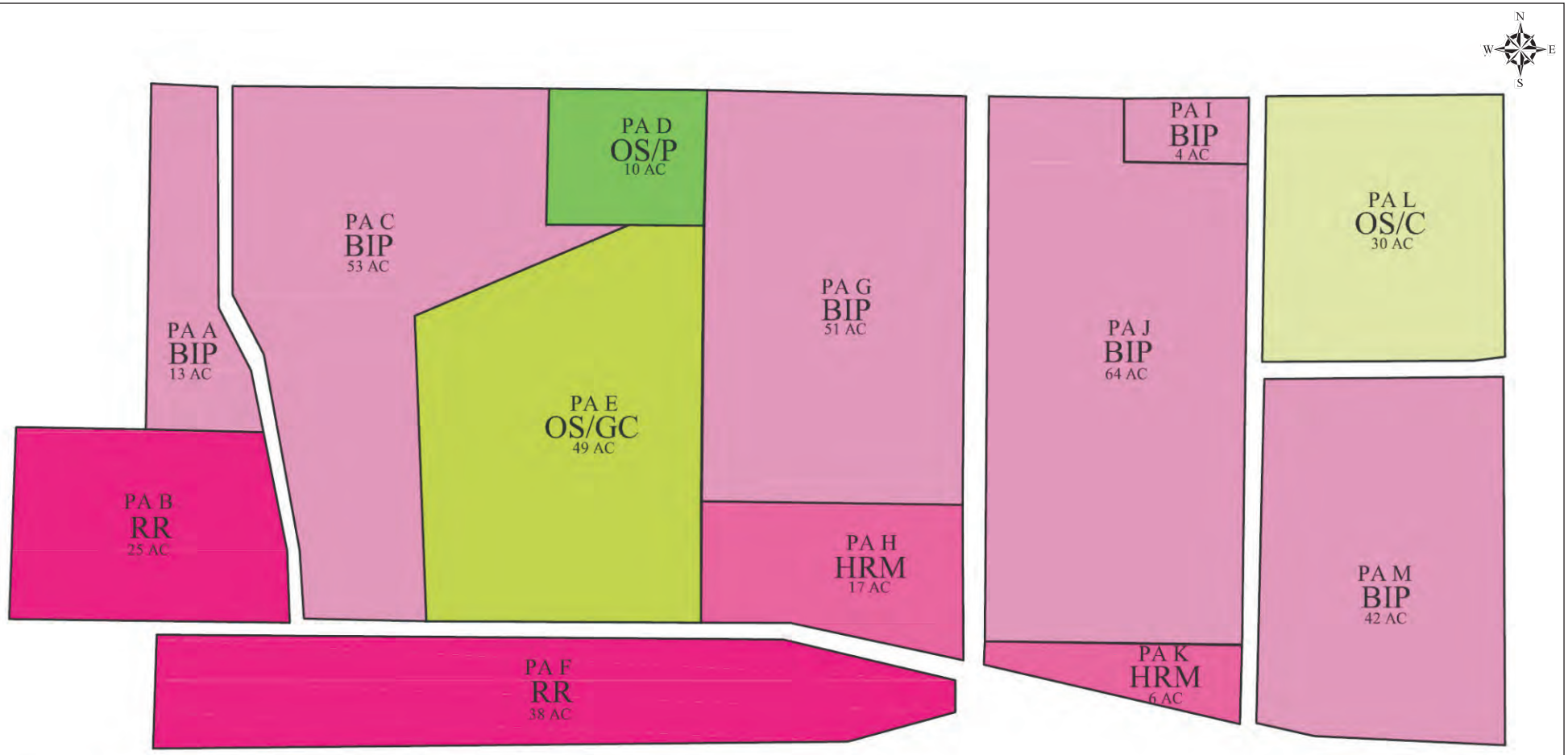
Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Aesthetics	Less Than Significant with Mitigation	Impacts would be greater due to the continuation of blighted conditions	Similar to Proposed CHCCSP
Air Quality	Significant Unavoidable Impact Project Related and Cumulative	Significant Unavoidable Impact Project Related and Cumulative	Significant Unavoidable Impact Project Related and Cumulative
Biological Resources	Less Than Significant with Mitigation	Greater impact on DSF and other sensitive species because there is no comprehensive HCP that would set aside large parcels of land that is suitable habitat for DSF	Similar to Proposed CHCCSP
Cultural Resources	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Geology and Soils	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Greenhouse Gasses	Less Than Significant with Mitigation	Less than the Proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential uses	Similar to Proposed CHCCSP
Hazards and Hazardous Materials	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP
Hydrology and Water Quality	Less Than Significant with Mitigation	Similar to the Proposed CHCCSP	Similar to Proposed CHCCSP

Table 6-11 Comparison of the Proposed CHCCSP to the Alternatives (continued)

Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Land Use	Less Than Significant with Mitigation	Would not meet the City's goals to create a Sustainable community	More diverse mix of land uses to better achieve the City's goals for a Sustainable Community that is pedestrian oriented and provides more opportunities to live, work in a walkable community
Noise	Less Than Significant with Mitigation	Less than the proposed CHCCSP because there are no residential land uses proposed	Similar to Proposed CHCCSP
Population and Housing	Less Than Significant with Mitigation	Greater impact because this alternative does not include a residential component and the City's Housing Element assumes that a portion of the City's future housing needs can be met by new residential units in the project area	Provides greater housing opportunities in a Sustainable Community that is pedestrian oriented and provides more opportunities to live, work in a walkable community
Public Services	Less Than Significant with Mitigation for most issues Significant Unavoidable impact to Parks	Less than the proposed CHCCSP because there would be no new residents to impact the school district, and the existing park would remain in place	Less Than Significant with Mitigation for most issues No Significant Unavoidable Impact on Parks

Table 6-11 Comparison of the Proposed CHCCSP to the Alternatives (continued)

Environmental Issue	Proposed Project	No-Project Alternative Development Under the Existing Specific Plan	Reduced Retail/Retail Mixed Use – Increased Residential Alternative
Traffic and Circulation	Less Than Significant with Mitigation	Less than the proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential units	Similar to the proposed CHCCSP however, a greater number of dwelling units in the project area would likely reduce vehicle trips over the CHCCSP land use scenario
Utilities and Service Systems	Less Than Significant with Mitigation	Less than the proposed CHCCSP because of a reduction of 930,000 sf of non-residential and 275 residential units	Similar to the proposed CHCCSP however, a greater number of dwelling units in the project area would increase energy and water consumption



LEGEND FOR EXISTING WVSP:

RR	Regional Retail
HRM	Hospitality Retail / Medical Support
BIP	Business / Industrial Park
OS/P	Open Space / Park
OS/GC	Open Space / Golf Course
OS/C	Open Space / Cemetary

Note: Planning areas J and L are not a part of the WVSPA project area.

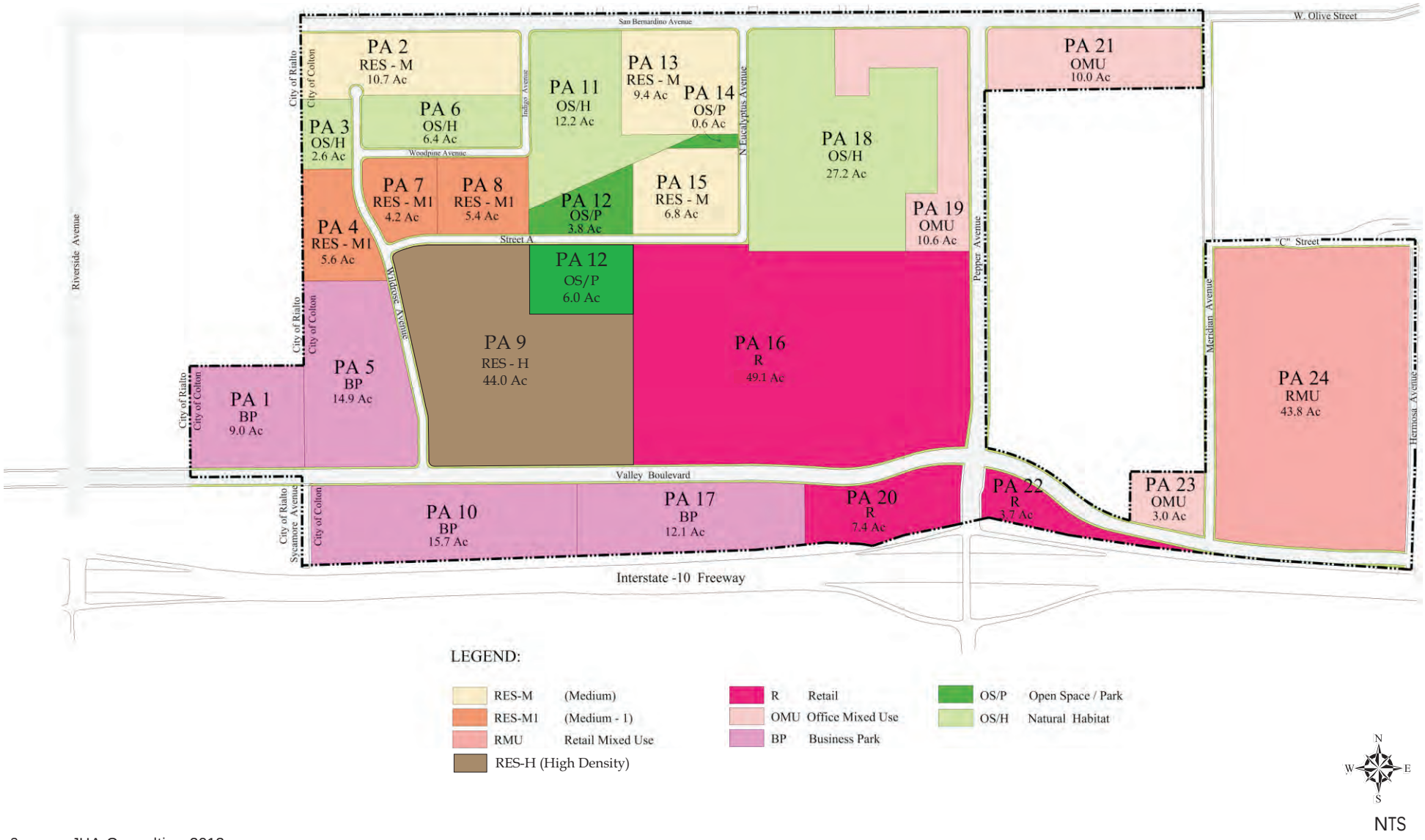
Source: JHA Consulting 2008

Not to Scale

The Altum Group

Existing Land Use Designations
CHCCSP Environmental Impact Report

Exhibit 6-1



Source: JHA Consulting 2013

The Altum Group

Alternative Land Use Plan
CHCCSP Environmental Impact Report

Exhibit 6-2

CHAPTER 7
EIR Preparation

7.1 Lead Agency

City of Colton
650 N. La Cadena Drive
Colton, CA 92324
Mark Tomich, Development Services Director

7.2 EIR Preparation Team

EIR Preparation

The Altum Group
73-701 Fred Waring Drive, Suite 219
Palm Desert, CA 92260

Nancy M. Ferguson, Environmental Planning Manager
Cheri Flores, Assistant Project Manager
Jon Braginton, Environmental Planner
Yvonne Franco, Environmental Planner
Patricia Opincar, Senior Editor
Michelle Vecsermyes, Word Processor

Air Quality and Greenhouse Gas and Noise Assessments

2008 Assessments

Mestre Greve Associates
19700 Fairchild Road, Suite 230
Irvine, CA 92612

Fred Greve, P.E., Vice President
Tonya Moon, Air Quality Specialist
Tim Reid, Noise Specialist

2014 Assessments

Kunzman Associates
1111 Town and Country Road, Suite 34
Orange, CA 92868

William Kunzman, PE, Principal
Carl Ballard, LEED GA, Principal Associate
Roma Stromberg, INCE, Senior Associate
Katie Wilson, MS, Senior Associate

Biological Resources/Habitat Conservation Plan

RBF
3300 E. Guasti Rd. Suite 100
Ontario, CA 91761

Tom McGill, PhD, Vice President

Cultural Resources

2008 Assessment

Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

Jennifer M. Sanka, M.A., RPA Associate Project Manager/Archaeologist

2012 Assessment

Atkins
650 East Hospitality Lane, Suite 460
San Bernardino, CA 92408

Jennifer M. Sanka, M.A., RPA, Associate Project Manager/Archaeologist
William R. Gillean, B.S., Field Technician II

Geology and Soils/Phase I ESA

Petra Geotechnical
3185-A Airway Drive
Costa Mesa, CA 92676

Miles Kenney, PG, PhD, Senior Project Geologist
Callie Callum, REA, Project Geologist

Preliminary Hydrology Report

Hall & Foreman, Inc.
17782 17th Street, Suite 200
Tustin, CA 92780

Traffic Impact Analysis

Kunzman Associates
1111 Town and Country Road, Suite 34
Orange, CA 92868
William Kunzman, PE, Principal
Carl Ballard, LEED GA, Principal Associate
Perrie Ilercil, PE, Senior Associate
Robert Kunzman, Senior Associate

CHAPTER 8
References

Chapter 4.1 Aesthetics

City of Colton General Plan Land Use Element, 2013

City of Colton Municipal Code

Colton Golf Club Facebook Page, https://www.facebook.com/pages/Colton-Golf-Club/199601976751992, accessed November 2013

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

JHA Associates, *Colton's Hub City Centre Specific Plan*, October 2013

Chapter 4.2 Agricultural Resources

California Department of Conservation Farmland Mapping and Monitoring Program, http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx, accessed December 2013

California Department of Forestry and Fire Protection Land Cover Map, accessed December 2013

Petra Geotechnical, Inc., *Phase I Environmental Site Assessment for the Colton Super Block; May* 2008a.

Chapter 4.3 Air Quality

Kunzman Associates, *Colton's Hub City Centre Specific Plan Air Quality, Global Climate Change and Health Risk Assessment Impact Analysis*, February, 2014

Mestre Greve Associates, *Air Quality Assessment for West Valley Specific Plan Amendment, City of Colton,* September 2008.

Chapter 4.4 Biological Resources

RBF Consultants, *Draft Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(A)(1)(B) of the Endangered Species Act for the Federally Endangered Delhi Sands Flower-Loving Fly Projects within the City of Colton, County of San*

Bernardino, California, December 2014

The Altum Group, *Environmental Assessment For Issuance of an Endangered Species Section 10 (A)(1)(B) Permit for the Incidental Take of the Federally Endangered Delhi Sands Flower-Loving Fly (Rhaphiomidas terminatus abdominalis) for Vegetation Clearance and Site Preparation for Future Projects Within the West Valley Specific Plan Amendment Project Area, City Of Colton San Bernardino County, California*, January 2014.

Chapter 4.5 Cultural Resources

Atkins, *Cultural Resources Assessment Habitat Conservation Plan for the Federally Endangered Delhi Sands Flower-Loving Fly City of Colton, San Bernardino County, California*, January 2013.

Google Earth, June 2013

Michael Brandman Associates (MBA), *Archaeological Records Search and Recommendations for the West Valley Specific Plan Amendment Project located in the City of Colton, San Bernardino County, California,* April 2008.

Petra Geotechnical, Inc., *Phase I Environmental Site Assessment for the Colton Super Block; May* 2008a.

Chapter 4.6 Geology and Soils

City of Colton Title 16, Chapter 16.72, Grading and Erosion Control

CCR Title 24, Part 2 – 2010 California Building Code

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

Natural Resources Conservation Service (NRCS), *Custom Soil Resource Report for San Bernardino County Southwestern Part, California, CHCCSP Project Area*, January 2014.

Petra Geotechnical, Inc., *Phase I Environmental Site Assessment for the Colton Super Block; May* 2008a.

Petra Geotechnical, Inc., *Due Diligence Geotechnical Assessment for the Site EIR; City of Colton Super Block* April 2008b.

Chapter 4.7 Greenhouse Gas Emissions

Kunzman Associates, *Colton's Hub City Centre Specific Plan, Air Quality, Global Climate Change and Health Risk Assessment Impact Analysis*, February 2014

Chapter 4.8 Hazards and Hazardous Materials

Environmental Data Resources (EDR) Radius Map Report, June 2013

Google Earth, June 2013

Petra Geotechnical, Inc., *Phase I Environmental Site Assessment for the Colton Super Block; May* 2008a.

Petra Geotechnical, Inc., *Due Diligence Geotechnical Assessment for the Site EIR; City of Colton Super Block* April 2008b.

Chapter 4.9 Hydrology and Water Quality

City of Colton's Water Supply Assessment, 2008

County of San Bernardino, *Technical Guidance Document for Water Quality Management Plans*, adopted by the Regional Water Quality Control Board, Santa Ana Region, June 21, 2013.

Federal Emergency Management Agency Flood, Federal Insurance Rate Maps Panel No. 86071C8678

Hall and Foreman, *Preliminary Hydrology Report, Colton Super Block*, August 2013

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

West Valley Water District's Water Supply Assessment, 2008, updated 2013

Chapter 4.10 Land Use and Planning

City of Colton General Plan Land Use Element, August 2013

City of Colton Municipal Code, Zoning Ordinance

City of Rialto Gateway Specific Plan

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

JHA Associates, *Colton's Hub City Centre Specific Plan*, October 2013

RBF Consultants, *Draft Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(A)(1)(B) of the Endangered Species Act for the Federally Endangered Delhi Sands Flower-Loving Fly Projects within the City of Colton, County of San Bernardino, California,* December 2014

West Valley Specific Plan, approved 1996

Chapter 4.11 Mineral Resources

California Department of Conservation's Mineral Land Classification Report, July 2008

City of Colton General Plan Open Space Element

Chapter 4.12 Noise

Caltrans, *Transportation- and Construction-Induced Vibration Guidance Manual*, June 2004

City of Colton General Plan Noise Element, 1987

City of Colton Municipal Code Section 18

County of San Bernardino Development Code Section 83

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006

FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108, December, 1978

Harris, Cyril M., *Handbook of Acoustical Measurement and Noise Control*, 1991

Kunzman Associates, *Colton's Hub City Centre Specific Plan Noise Impact Analysis,* February 2014

Mestre Greve Associates, *Noise Assessment for: West Valley Specific Plan, City of Colton*, December 2008.

RBF Consultants, *Draft Habitat Conservation Plan for the Issuance of an Incidental Take Permit Under Section 10(A)(1)(B) of the Endangered Species Act for the Federally Endangered Delhi Sands Flower-Loving Fly Projects within the City of Colton, County of San Bernardino, California,* December 2014

Chapter 4.13 Population and Housing

City of Colton, 2008-2014 Housing Element

California Department of Finance, E-5 City/County Population and Housing Estimates, January 1, 2014

Employment Development Department, Labor Market Information, Monthly Labor Force Data for Cities and Census Designated Places, November 2013 – Preliminary

JHA Associates, *Colton's Hub City Centre Specific Plan*, October 2013

Southern California Association of Governments, 2012 Statistical Summary for the City of Colton

Southern California Association of Governments, Regional Housing Needs Assessment

Southern California Association of Governments, 2012-2035 Regional Transportation Plan

Southern California Association of Governments, 2012-2035 Regional Transportation Plan, Transportation Demand Management Appendix

Southern California Association of Governments, 2012-2035 Regional Transportation Plan, Growth Forecast Appendix

Chapter 4.14 Public Services

Arrowhead Medical Center website, https://www.arrowheadmedcenter.org/, accessed January 2014

Colton Fire Department website, http://www.coltonfire.com/index.cfm?section=1, accessed January 2014

Colton Police Department websites, http://www.ci.colton.ca.us/index.aspx?NID=164 and http://www.coltonpd.org/, accessed January 2014

Colton Parks and Recreation website, http://www.ci.colton.ca.us/index.aspx?NID=136, accessed January 2014

Colton Joint Unified School District Facilities, Planning and Construction Department website, http://www.colton.k12.ca.us/education/components/scrapbook/default.php?sectiondetailid=939&linkid=nav-menu-container-4-120808Correspondence with Chief Tim McHargue, Colton Fire Department, July 2013

Correspondence with Lieutenant Chuck deDianous, Colton Police Department, August 2013

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

JHA Consulting, *Colton's Hub City Centre Specific Plan*, October 2013

Rialto Parks and Recreation website, http://www.rialtorec.net/, accessed January 2014

Rialto Unified School District Facilities Planning website, http://rialto-ca.schoolloop.com/facilities, accessed January 2014

Rialto Unified School District, *School Facilities Needs Analysis*, prepared April 2013

Rialto Unified School District, *Developer Fee Justification Study*, prepared April 2012

, accessed January 2014

Chapter 4.15 Traffic and Circulation

California Manual of Uniform Traffic Control Devices, January 2012

Caltrans, *2012 Traffic Volumes on California State Highways*

City of Colton, *General Plan Mobility Element*, www.ci.colton.ca.us/documentcenter/view/828, accessed January 2014

Institute of Transportation Engineers, *Trip Generation, 9th Edition*, 2012

Kunzman Associates, *Colton's Hub City Centre Specific Plan Traffic Impact Analysis (TIA)*, October 2013

San Bernardino Transportation Analysis Model

San Bernardino County Congestion Management Plan

Transportation Research Board, National Research Council, Washington, D.C., *Highway Capacity Manual Special Report 209*, 2000.

Chapter 4.16 Utilities and Service Systems

Calrecycle website, accessed March 18, 2014, http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Institution.htm

City of Colton Municipal Code

City of Colton Electric Utility Department Website, http://www.ci.colton.ca.us/index.aspx?NID=316, accessed March 17, 2014

City of Colton, *Sewer System Management Plan, 2009*

City of San Bernardino website, https://www.ci.san-bernardino.ca.us/sbmwd_divisions/water_reclamation/, accessed January 2014

County of San Luis Obispo, *Development Impact Fee Study*, 2013

Engineering Resources of Southern California, Inc., *Water Facilities Feasibility Study for the City*

of Colton Super Block Development, June 2008

Hogle-Ireland, *City of Colton General Plan Update EIR*, May 2013

Kim Rhodes, ASLA, David Evans & Associates, Personal Communication March 18, 2014

Krieger & Stewart, Inc., *Water Supply Assessment for the City of Colton West Valley Specific Plan Project*, August 2008

San Bernardino County, *Countywide Integrated Waste Management Plan*

San Bernardino Valley Municipal Water District, *2010 San Bernardino Valley Regional Urban Water Management Plan*, 2011

West Valley Water District, *2006 Urban Water Management Plan*

Upper Santa Ana Watershed Integrated Regional Water Management Plan, November 2007

USEPA website, http://www.epa.gov/WaterSense/pubs/indoor.html, accessed March 2014