Majestic Chino Heritage

City of Chino, California



Draft Environmental Impact Report

SCH No. 2019039133

City of Chino
13220 Central Avenue
Chino, CA 91710

May 2020

Draft Environmental Impact Report
SCH No. 2019039133

Majestic Chino Heritage

City of Chino, California

Lead Agency
City of Chino
13220 Central Avenue
Chino, CA 91710

CEQA Consultant
T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, CA 92602

Project Applicant
Majestic Realty Co.
13191 Crossroads Parkway North, 6th Floor
City of Industry, CA 91746

Lead Agency Discretionary Permits
General Plan Amendment (PL18-0090)
Zone Change (PL18-0091)
Vesting Parcel Map (PL18-0119)
Site Approvals (PL18-0018 and PL18-0120)
Special Conditional Use Permit (PL19-0011)

May 2020

TABLE OF CONTENTS

Section Number and Name **Page**

S.0 Executive Summary S-1
S.1 Introduction S-1
S.2 Project Overview S-2
S.2.1 Location and Setting S-2
S.2.2 Project Summary S-2
S.2.3 Project Objectives S-3
S.3 EIR Process S-4
S.4 Areas of Controversy and Issues to be Resolved S-4
S.5 Alternatives to the Proposed Project S-5
S.5.1 No Development Alternative S-5
S.5.2 No Project Alternative S-5
S.5.3 Trailer and Cargo Container Storage Alternative S-5
S.5.4 Truck Terminal Alternative S-6
S.6 Summary of Impacts, Mitigation Measures, and Conclusions S-6
S.6.1 Effects Found Not to be Significant S-6
S.6.2 Impacts of the Proposed Project S-6

1.0 Introduction 1-1
1.1 Definition of Terms 1-1
1.2 Purposes of CEQA and this EIR 1-2
1.3 Summary of the Project Evaluation by this EIR 1-2
1.4 Prior CEQA Review 1-3
1.5 Legal Authority 1-4
1.6 Responsible and Trustee Agencies 1-4
1.7 EIR Scope, Format, and Content 1-5
1.7.1 EIR Scope 1-5
1.7.2 EIR Format and Content 1-7
1.7.3 Incorporation by Reference 1-10

2.0 Environmental Setting 2-1
2.1 Regional Setting and Location 2-1
2.2 Local Setting and Location 2-1
2.3 Surrounding Land Uses 2-2
2.4 Existing Physical Site Conditions 2-6
2.4.1 Land Use 2-6
2.4.2 Aesthetics and Topographic Features 2-7
2.4.3 Air Quality and Climate 2-8
2.4.4 Cultural Resources & Tribal Cultural Resources 2-9
2.4.5 Geology 2-9

Section Number and Name | Page

2.4.6 Hydrology 2-10
2.4.7 Noise 2-11
2.4.8 Transportation 2-12
2.4.9 Utilities and Service Systems 2-12
2.4.10 Vegetation Communities 2-12
2.4.11 Wildlife 2-13
2.4.12 Rare and Unique Resources 2-13
2.5 Planning Context 2-14
2.5.1 City of Chino General Plan 2-14
2.5.2 Zoning 2-14
2.5.3 Chino Airport Land Use Compatibility Plan 2-17
2.5.4 SCAG Regional Transportation Plan/Sustainable Communities Strategy 2-17

3.0 Project Description 3-1
3.1 Project Location 3-1
3.2 Statement of Objectives 3-1
3.3 Project's Component Parts 3-6
3.3.1 General Plan Amendment 3-6
3.3.2 Change of Zone 3-6
3.3.3 Site Approvals 3-6
3.3.4 Vesting Parcel Map 3-13
3.3.5 Special Conditional Use Permit 3-13
3.4 Technical Characteristics of the Project 3-13
3.4.1 Project Improvements 3-13
3.4.2 Construction Characteristics 3-29
3.4.3 Operational Characteristics 3-32
3.5 Summary of Requested Actions 3-32

4.0 Environmental Analysis 4.0-1
4.0.1 Summary of EIR Scope 4.0-1
4.0.2 Scope of Cumulative Effects Analysis 4.0-1
4.0.3 Identification of Impacts 4.0-6

4.1 Agriculture and Forestry Resources 4.1-1
4.1.1 Existing Conditions 4.1-1
4.1.2 Applicable Environmental Plans, Policies, and Regulations 4.1-11
4.1.3 Basis for Determining Significance 4.1-14
4.1.4 Impact Analysis 4.1-16
4.1.5 Cumulative Impact Analysis 4.1-20
4.1.6 Significance of Impacts Before Mitigation 4.1-21
4.1.7 Mitigation 4.1-21

Section Number and Name **Page**

4.2 Air Quality 4.2-1
4.2.1 Existing Conditions 4.2-1
4.2.2 Applicable Environmental Plans, Policies, and Regulations 4.2-14
4.2.3 Methodology for Calculating Project-Related Air Quality Impacts 4.2-18
4.2.4 Basis for Determining Significance 4.2-22
4.2.5 Impact Analysis 4.2-26
4.2.6 Cumulative Impact Analysis 4.2-35
4.2.7 Significance of Impacts Before Mitigation 4.2-36
4.2.8 Mitigation 4.2-36
4.2.9 Significance of Impacts After Mitigation 4.2-39

4.3 Biological Resources 4.3-1
4.3.1 Existing Conditions 4.3-1
4.3.2 Applicable Environmental Plans, Policies, and Regulations 4.3-9
4.3.3 Basis for Determining Significance 4.3-21
4.3.4 Impact Analysis 4.3-23
4.3.5 Cumulative Impact Analysis 4.3-28
4.3.6 Significance of Impacts Before Mitigation 4.3-30
4.3.7 Mitigation 4.3-30
4.3.8 Significance of Impacts After Mitigation 4.3-34

4.4 Cultural Resources 4.4-1
4.4.1 Existing Conditions 4.4-1
4.4.2 Applicable Environmental Plans, Policies, and Regulations 4.4-7
4.4.3 Basis for Determining Significance 4.4-12
4.4.4 Impact Analysis 4.4-12
4.4.5 Cumulative Impact Analysis 4.4-17
4.4.6 Significance of Impacts Before Mitigation 4.4-18
4.4.7 Mitigation 4.4-18
4.4.8 Significance of Impacts After Mitigation 4.4-20

4.5 Energy 4.5-1
4.5.1 Existing Conditions 4.5-1
4.5.2 Applicable Environmental Plans, Policies, and Regulations 4.5-2
4.5.3 Methodology for Calculating Project Energy Demands 4.5-5
4.5.4 Basis for Determining Significance 4.5-6
4.5.5 Impact Analysis 4.5-6
4.5.6 Cumulative Impact Analysis 4.5-10
4.5.7 Significance of Impacts Before Mitigation 4.5-10
4.5.8 Mitigation 4.5-11

4.6 Geology and Soils 4.6-1
4.6.1 Existing Conditions 4.6-2
4.6.2 Applicable Environmental Plans, Policies, and Regulations 4.6-5

Section Number and Name | Page

4.6.3 Basis for Determining Significance 4.6-10
4.6.4 Impact Analysis 4.6-10
4.6.5 Cumulative Impact Analysis 4.6-15
4.6.6 Significance of Impacts Before Mitigation 4.6-16
4.6.7 Mitigation 4.6-17
4.6.8 Significance of Impacts After Mitigation 4.6-18

4.7 Greenhouse Gas Emissions 4.7-1
4.7.1 Existing Conditions 4.7-1
4.7.2 Applicable Environmental Plans, Policies, and Regulations 4.7-7
4.7.3 Methodology for Estimating Greenhouse Gas Emissions 4.7-17
4.7.4 Basis for Determining Significance 4.7-19
4.7.5 Impact Analysis 4.7-20
4.7.6 Cumulative Impact Analysis 4.7-25
4.7.7 Significance of Impacts Before Mitigation 4.7-25
4.7.8 Mitigation 4.7-26

4.8 Hazards and Hazardous Materials 4.8-1
4.8.1 Existing Conditions 4.8-2
4.8.2 Applicable Environmental Plans, Policies, and Regulations 4.8-8
4.8.3 Basis for Determining Significance 4.8-14
4.8.4 Impact Analysis 4.8-15
4.8.5 Cumulative Impact Analysis 4.8-21
4.8.6 Significance of Impacts Before Mitigation 4.8-22
4.8.7 Mitigation 4.8-23

4.9 Hydrology and Water Quality 4.9-1
4.9.1 Existing Conditions 4.9-1
4.9.2 Applicable Environmental Plans, Policies, and Regulations 4.9-7
4.9.3 Basis for Determining Significance 4.9-13
4.9.4 Impact Analysis 4.9-13
4.9.5 Cumulative Impact Analysis 4.9-23
4.9.6 Significance of Impacts Before Mitigation 4.9-25
4.9.7 Mitigation 4.9-25

4.10 Land Use and Planning 4.10-1
4.10.1 Existing Conditions 4.10-1
4.10.2 Applicable Environmental Plans, Policies, and Regulations 4.10-2
4.10.3 Basis for Determining Significance 4.10-9
4.10.4 Impact Analysis 4.10-9
4.10.5 Cumulative Impact Analysis 4.10-13
4.10.6 Significance of Impacts Before Mitigation 4.10-14
4.10.7 Mitigation 4.10-14

Section Number and Name **Page**

4.11 Noise 4.11-1
4.11.1 Noise Fundamentals 4.11-1
4.11.2 Existing Conditions 4.11-4
4.11.3 Applicable Environmental Plans, Policies, and Regulations 4.11-8
4.11.4 Methodology for Estimating Project-Related Noise Impacts 4.11-13
4.11.5 Basis for Determining Significance 4.11-18
4.11.6 Impact Analysis 4.11-20
4.11.7 Cumulative Impact Analysis 4.11-34
4.11.8 Significance of Impacts Before Mitigation 4.11-36
4.11.9 Mitigation 4.11-36
4.11.10 Significance of Impacts After Mitigation 4.11-39

4.12 Transportation 4.12-1
4.12.1 Study Area Description 4.12-1
4.12.2 Existing Conditions 4.12-2
4.12.3 Applicable Environmental Plans, Policies, and Regulations 4.12-5
4.12.4 Traffic Impact Analysis Methodology 4.12-6
4.12.5 Basis for Determining Significance 4.12-10
4.12.6 Impact Analysis 4.12-12
4.12.7 Cumulative Impact Analysis 4.12-26
4.12.8 Significance of Impacts Before Mitigation 4.12-27
4.12.9 Mitigation 4.12-27
4.12.10 Significance of Impacts After Mitigation 4.12-28

4.13 Tribal Cultural Resources 4.13-1
4.13.1 Existing Conditions 4.13-1
4.13.2 Applicable Regulatory Requirements 4.13-3
4.13.3 Basis for Determining Significance 4.13-5
4.13.4 Impact Analysis 4.13-5
4.13.5 Cumulative Impact Analysis 4.13-6
4.13.6 Significance of Impacts Before Mitigation 4.13-6
4.13.7 Mitigation 4.13-6
4.13.8 Significance of Impacts After Mitigation 4.13-7

4.14 Utilities and Service Systems 4.14-1
4.14.1 Existing Conditions 4.14-1
4.14.2 Applicable Environmental Plans, Policies, and Regulations 4.14-3
4.14.3 Basis for Determining Significance 4.14-9
4.14.4 Impact Analysis 4.14-10
4.14.5 Cumulative Impact Analysis 4.14-15
4.14.6 Significance of Impacts Before Mitigation 4.14-16
4.14.7 Mitigation 4.14-16

Section Number and Name — Page

5.0 Other CEQA Considerations 5-1

5.1 Significant Environmental Effects that Cannot be Avoided if the Proposed Project is Implemented 5-1
5.2 Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented 5-2
5.3 Growth-Inducing Impacts of the Proposed Project 5-3
5.4 Effects Found not to be Significant as Part of the Initial Study Process 5-4

6.0 Alternatives 6-1

6.1 Alternatives Under Consideration 6-2
6.1.1 No Development Alternative 6-2
6.1.2 No Project Alternative. 6-3
6.1.3 Trailer and Cargo Container Storage Alternative 6-3
6.1.3 Truck Terminal Alternative 6-3
6.2 Alternatives Considered and Rejected 6-4
6.2.1 Alternative Sites 6-4
6.2.2 Excess Fill Dirt Site Alternative. 6-5
6.2.3 Residential Land Use Alternative 6-5
6.3 Alternative Analysis 6-6
6.3.1 No Development Alternative 6-7
6.2.2 No Project Alternative. 6-11
6.2.3 Trailer and Cargo Container Storage Alternative 6-16
6.2.4 Truck Terminal Alternative 6-22
6.4 Environmentally Superior Alternative 6-29

7.0 References 7-1

7.1 Persons Involved in the Preparation of this EIR 7-1
7.1.1 City of Chino Community Development Department, Planning Division 7-1
7.1.2 T&B Planning, Inc. 7-1
7.2 Documents Incorporated by Reference in this EIR 7-1
7.3 Documents and Websites Consulted 7-3
7.4 Documents Appended to this EIR 7-13

LIST OF FIGURES

Figure Number and Name **Page**

Figure 2-1 Existing Land Uses Surrounding the Project Site 2-3
Figure 2-2 Existing Land Uses Surrounding Excess Fill Dirt Sites Nos. 1-5 2-4
Figure 2-3 Existing General Plan Land Use Designations 2-15
Figure 2-4 Existing Zoning Designations 2-16
Figure 2-5 Chino Airport Safety Zones 2-19

Figure 3-1 Regional Map 3-3
Figure 3-2 Vicinity Map 3-4
Figure 3-3 USGS Topographic Map 3-5
Figure 3-4 Proposed General Plan Amendment PL18-0090 3-8
Figure 3-5 Proposed Change of Zone PL18-0091 3-9
Figure 3-6 Site Approvals PL18-0118 & PL18-0120 3-10
Figure 3-7 Conceptual Architectural Elevations: Building 1 3-11
Figure 3-8 Conceptual Architectural Elevations: Building 2 3-14
Figure 3-9 Conceptual Landscape Plan 3-15
Figure 3-10 Conceptual Utility Plan 3-18
Figure 3-11 Drainage Plan 3-19
Figure 3-12 Conceptual Grading Plan 3-20
Figure 3-13 Excess Fill Dirt Sites Location Map 3-21
Figure 3-14 Conceptual Grading Plan: Excess Fill Dirt Site 1 3-24
Figure 3-15 Conceptual Grading Plan: Excess Fill Dirt Site 2 3-25
Figure 3-16 Conceptual Grading Plan: Excess Fill Dirt Site 3 3-26
Figure 3-17 Conceptual Grading Plan: Excess Fill Dirt Site 4 3-27
Figure 3-18 Conceptual Grading Plan: Excess Fill Dirt Site 5 3-28
Figure 3-19 Soil Import Haul Routes 3-31

Figure 4.1-1 Soils Map – Project Site 4.1-3
Figure 4.1-2 Soils Map – Excess Fill Dirt Site No. 1 ..... 4.1-4
Figure 4.1-3 Soils Map – Excess Fill Dirt Site No. 2 ..... 4.1-5
Figure 4.1-4 Soils Map – Excess Fill Dirt Site No. 3 ..... 4.1-6
Figure 4.1-5 Soils Map – Excess Fill Dirt Site No. 4 ..... 4.1-7
Figure 4.1-6 Soils Map – Excess Fill Dirt Site No. 5 ..... 4.1-8
Figure 4.1-7 FMMP Farmlands Map 4.1-15

Figure 4.2-1 South Coast Air Basin Ozone Trend 4.2-8
Figure 4.2-2 South Coast Air Basin PM_{10} Trend (Federal Standard) 4.2-9
Figure 4.2-3 South Coast Air Basin PM_{10} Trend (State Standard) 4.2-9
Figure 4.2-4 South Coast Air Basin $PM_{2.5}$ Trend (Federal Standard) 4.2-10
Figure 4.2-5 South Coast Air Basin $PM_{2.5}$ Trend (State Standard) 4.2-10

Figure Number and Name **Page**

Figure 4.2-6 South Coast Air Basin 24-Hour Average CO Trend....4.2-11
Figure 4.2-7 South Coast Air Basin NO_X Trend (Federal Standard)....4.2-12
Figure 4.2-8 South Coast Air Basin NO_X Trend (State Standard)....4.2-12
Figure 4.2-9 Diesel Particulate Matter and Diesel Vehicle Miles Trend....4.2-13

Figure 4.3-1 Existing Vegetation Map – Project Site & Off-Site Improvement Area....4.3-3
Figure 4.3-2 Existing Vegetation Map – Excess Fill Dirt Site Nos. 1 & 2....4.3-4
Figure 4.3-3 Existing Vegetation Map – Excess Fill Dirt Site No. 3....4.3-5
Figure 4.3-4 Existing Vegetation Map – Excess Fill Dirt Site No. 4....4.3-6
Figure 4.3-5 Existing Vegetation Map – Excess Fill Dirt Site No. 5....4.3-7
Figure 4.3-6 Cypress Channel – Corps & RWQCB Jurisdiction Area....4.3-10
Figure 4.3-7 Cypress Channel – CDFW Jurisdiction Area....4.3-11
Figure 4.3-8 Drainage 1 & Ditch 1 – Corps & RWQCB Jurisdiction Area....4.3-12
Figure 4.3-9 Drainage 1 & Ditch 1 – CDFW Jurisdiction Area....4.3-13
Figure 4.3-10 USFWS Critical Habitat for the Least Bell's Vireo....4.3-16

Figure 4.4-1 Monitoring Location Map: Project Site....4.4-21
Figure 4.4-2 Monitoring Location Map: Excess Fill Dirt Site No. 1....4.4-22
Figure 4.4-3 Monitoring Location Map: Excess Fill Dirt Site No. 2....4.4-23
Figure 4.4-4 Monitoring Location Map: Excess Fill Dirt Site No. 3....4.4-24
Figure 4.4-5 Monitoring Location Map: Excess Fill Dirt Site No. 4....4.4-25
Figure 4.4-6 Monitoring Location Map: Excess Fill Dirt Site No. 5....4.4-26

Figure 4.9-1 Santa Ana River Watershed Map....4.9-3
Figure 4.9-2 City of Chino General Plan EIR Exhibit: 566 Foot Prado Dam Inundation Area....4.9-4
Figure 4.9-3 Existing Conditions Hydrology Map....4.9-5
Figure 4.9-4 FEMA Flood Insurance Map Panels....4.9-8
Figure 4.9-5 Proposed Post-Development Hydrology Map....4.9-19

Figure 4.11-1 Noise Measurement Locations....4.11-5
Figure 4.11-2 Noise Receptor Locations....4.11-16
Figure 4.11-3 Operational Noise Source and Receptor Locations....4.11-23
Figure 4.11-4 Excess Fill Dirt Hauling Traffic Noise Impact Locations – Daytime Hours....4.11-31
Figure 4.11-5 Excess Fill Dirt Hauling Traffic Noise Impact Locations – Nighttime Hours....4.11-32
Figure 4.11-6 Construction Noise Mitigation....4.11-38

Figure 4.12-1 Study Area Intersection Locations....4.12-56
Figure 4.12-2 Existing Average Daily Traffic (PCE)....4.12-57
Figure 4.12-3 Existing Peak Hour Intersection Volumes (PCE)....4.12-58
Figure 4.12-4 Project Truck Trip Distribution – Near Term....4.12-59
Figure 4.12-5 Project Passenger Car Trip Distribution – Near-Term....4.12-60
Figure 4.12-6 Project Truck Trip Distribution – Horizon Year....4.12-61
Figure 4.12-7 Project Passenger Car Trip Distribution – Horizon Year....4.12-62
Figure 4.12-8 Haul Routes Between the Project and Excess Fill Dirt Sites (1 of 2)....4.12-63

Figure Number and Name **Page**

Figure 4.12-9 Haul Routes Between the Project and Excess Fill Dirt Sites (2 of 2) 4.12-64
Figure 4.12-10 Existing plus Project (Building 1) Average Daily Traffic 4.12-65
Figure 4.12-11 Existing plus Project (Building 1) Peak Hour Intersection Volumes (1 of 2) 4.12-66
Figure 4.12-12 Existing plus Project (Building 1) Peak Hour Intersection Volumes (2 of 2) 4.12-67
Figure 4.12-13 Existing plus Project (Project Buildout) Average Daily Traffic 4.12-68
Figure 4.12-14 Existing plus Project (Project Buildout) Peak Hour Intersection Volumes (1 of 2) . 4.12-69
Figure 4.12-15 Existing plus Project (Project Buildout) Peak Hour Intersection Volumes (2 of 2) . 4.12-70
Figure 4.12-16 Opening Year (2022) Average Daily Traffic 4.12-71
Figure 4.12-17 Opening Year (2022) Peak Hour Intersection Volumes (1 of 2) 4.12-72
Figure 4.12-18 Opening Year (2022) Peak Hour Intersection Volumes (2 of 2) 4.12-73
Figure 4.12-19 Horizon Year (2040) Average Daily Traffic 4.12-74
Figure 4.12-20 Horizon Year (2040) Peak Hour Intersection Volumes (1 of 2) 4.12-75
Figure 4.12-21 Horizon Year (2040) Peak Hour Intersection Volumes (2 of 2) 4.12-76

LIST OF TABLES

Table Number and Name **Page**

Table S-1 Mitigation Monitoring and Reporting Program S-8

Table 1-1 Summary of NOP and Scoping Meeting Comments 1-6
Table 1-2 Location of CEQA-Required Topics 1-8

Table 3-1 Estimated Construction Schedule 3-29
Table 3-2 Estimated Construction Equipment Fleet 3-30
Table 3-3 Soil Excavation & Transport Schedule 3-30
Table 3-4 Project Related Approvals/Permits 3-34

Table 4.0-1 List of Cumulative Projects 4.0-3

Table 4.1-1 Soils Summary 4.1-10
Table 4.1-2 California LESA Model Scoring Thresholds 4.1-14
Table 4.1-3 LESA Model Scores 4.1-18

Table 4.2-1 Ambient Air Quality Standards 4.2-6
Table 4.2-2 SCAB Criteria Pollutant Attainment Status 4.2-7
Table 4.2-3 Project Area Air Quality Monitoring Summary 4.2-14
Table 4.2-4 SCAQMD Maximum Daily Emissions Regional Thresholds 4.2-23
Table 4.2-5 SCAQMD Maximum Daily Emissions Localized Thresholds 4.2-24
Table 4.2-6 Peak Construction Emissions Summary 4.2-27
Table 4.2-7 Peak Operational Emissions Summary (EMFAC2014) 4.2-29

Table Number and Name **Page**

Table 4.2-8 Peak Operational Emissions Summary (EMFAC2017) 4.2-30
Table 4.2-9 Peak Construction Localized Emissions Summary 4.2-31
Table 4.2-10 Peak Operational Localized Emissions Summary (EMFAC2014) 4.2-32
Table 4.2-11 Peak Operational Localized Emissions Summary (EMFAC2017) 4.2-32
Table 4.2-12 Peak Construction Emissions Summary (with Mitigation) 4.2-40

Table 4.7-1 GWP and Atmospheric Lifetime of Select GHGs 4.7-2
Table 4.7-2 Summary of Projected Global Warming Impact, 2070-2099 ..... 4.7-6
Table 4.7-3 Scoping Plan GHG Reduction Measures Towards 2020 Target 4.7-12
Table 4.7-4 Project Annual GHG Emissions (EMFAC2014) 4.7-20
Table 4.7-5 Project Annual GHG Emissions (EMFAC2017) 4.7-21
Table 4.7-6 CARB Scoping Plan Consistency 4.7-23

Table 4.10-1 SCAG RTP/SCS Goal Consistency Analysis 4.10-11

Table 4.11-1 Existing 24-Hour Ambient Noise Level Measurements 4.11-6
Table 4.11-2 City of Chino Noise Element Interior and Exterior Noise Standards 4.11-11
Table 4.11-3 Construction Reference Noise Levels 4.11-14
Table 4.11-4 Roadway Parameters 4.11-17
Table 4.11-5 Vibration Source Levels for Construction Equipment 4.11-18
Table 4.11-6 Project Construction Noise Levels 4.11-21
Table 4.11-7 Project Operational Noise – Stationary Noise 4.11-22
Table 4.11-8 Existing plus Project Traffic Noise Levels 4.11-26
Table 4.11-9 Opening Year (2022) Traffic Noise Levels 4.11-27
Table 4.11-10 Horizon Year (2040) Traffic Noise Levels 4.11-28
Table 4.11-11 Excess Fill Dirt Hauling Daytime Noise Levels –Excess Fill Dirt Site Nos. 1 through 5 ..... 4.11-29
Table 4.11-12 Excess Fill Dirt Hauling Nighttime Noise Levels – Fill Dirt Site Nos. 1 through 5 ..... 4.11-30
Table 4.11-13 Project Construction Vibration Levels 4.11-34

Table 4.12-1 Study Area Intersection Locations 4.12-31
Table 4.12-2 Study Area Freeway Mainline Segments and Freeway Merge/Diverge Ramp Junctions 4.12-32
Table 4.12-3 Existing Intersection Levels of Service 4.12-33
Table 4.12-4 Existing Freeway Facility Levels of Service 4.12-34
Table 4.12-5 Existing Peak Hour Freeway Off-Ramp Queuing Summary 4.12-35
Table 4.12-6 Signalized Intersection LOS Thresholds 4.12-36
Table 4.12-7 Unsignalized Intersection LOS Thresholds 4.12-36
Table 4.12-8 Freeway Mainline LOS Thresholds 4.12-37
Table 4.12-9 Freeway Ramp Junction Merge/Diverge LOS Thresholds 4.12-37
Table 4.12-10 Project Trip Generation Summary 4.12-38
Table 4.12-11 Import Operation by Excess Fill Dirt Sites 4.12-39
Table 4.12-12 Existing plus Project (Building 1) Intersection Analysis 4.12-40
Table 4.12-13 Existing plus Project (Project Buildout) Intersection Analysis 4.12-41
Table 4.12-14 Existing plus Project Freeway Facility Analysis 4.12-42
Table 4.12-15 Existing plus Project Freeway Ramp Queuing Analysis 4.12-43

Table Number and Name **Page**

Table 4.12-16 Opening Year (2022) Intersection Analysis....4.12-44
Table 4.12-17 Opening Year (2022) Freeway Facility Analysis....4.12-45
Table 4.12-18 Opening Year (2022) Freeway Ramp Queuing Analysis....4.12-46
Table 4.12-19 Horizon Year (2040) Intersection Analysis....4.12-47
Table 4.12-20 Horizon Year (2040) Freeway Facility Analysis....4.12-48
Table 4.12-21 Horizon Year (2040) Freeway Ramp Queuing Analysis....4.12-49
Table 4.12-22 Existing plus Project Intersection Analysis – With Mitigation....4.12-50
Table 4.12-23 Opening Year (2022) Intersection Analysis – With Mitigation....4.12-51
Table 4.12-24 Horizon Year (2040) Intersection Analysis – With Mitigation....4.12-53

Table 4.14-1 Project Water Demand Estimate....4.14-12

Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts....6-30

ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

Acronym	Definition
§	Section
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
AB 32	Assembly Bill 32
AB 52	Assembly Bill 52
AB 197	Assembly Bill 97
AB 341	Assembly Bill 341
AB 939	Assembly Bill 939
AB 1327	Assembly Bill 1327
AB 1493	Assembly Bill 1943
AB 2185	Assembly Bill 2185
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos Containing Materials
ACOE	Army Corps of Engineers
ADT	Average Daily Traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AF	Acre-feet
AG	Agriculture
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
amsl	Above Mean Sea Level
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ASTs	Above ground storage tanks
BACMs	Best Available Control Measures
BAU	Business as Usual
BFSA	Brian F. Smith & Associates
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod™	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CalGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association

Acronym	Definition
CARB	California Air Resources Board
CAT	Climate Action Team
Cb	Chino Silt Loam
CBSC	California Building Standards Code
CBWM	Chino Basin Watermaster
CCA	Community Choice Aggregators
CCAA	California Clean Air Act
CCCC	California Climate Change Center
CCR	California Code of Regulations
CDA	China Basin Desalter Authority
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
C_2F_6	Hexaflouroethane
CF_4	Tetraflouromethane
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CGC	California Government Code
CGS	California Geological Survey
C_2H_6	Ethane
CH_4	Methane
CH_3CHF_2	HFC-152a
CHF_3	HFC-23
CIWMB	California Integrated Waste Management Board
CkA	Chualar Clay Loam
CkC	Chualar Clay Loam
CkD	Chuala Clay Loam
CLCA	California Land Conservation Act
CMC	Charles Marr Consulting
CMP	San Bernardino County Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COHb	carboxyhemoglobin
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CREC	Controlled Recognized Environmental Condition
CSU	California State University Fullerton
CTC	California Transportation Commission
CTR	California Toxics Rule

Acronym	Definition
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWC	California Water Code
c.y.	cubic yards
dB	Decibel
dBA	A-weighted Decibels
DIF	Development Impact Fee
DOE	Determination of Eligibility
DOF	Department of Finance
DOSH	Division of Occupational Safety and Health
DMV	Department of Motor Vehicles
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
E + P	Existing plus Project
EDR	Environmental Data Resources
e.g.	for example
EIR	Environmental Impact Report
EMFAC	California Air Resources Board's Emission Factors
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPS	Emission Performance Standard
ER	Estate Residential
ESA	Endangered Species Act
ESA	Environmental Site Assessment
ESP	Electric Service Providers
ESFR	Early Suppression, Fast Response
F	Fahrenheit
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FIMA	Federal Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FYI	for your information
GBN	Ground-Based Noise
GBV	Ground-Based Vibration
GCC	Global Climate Change
Gg	Gigagrams
GHG	Greenhouse Gas
GI	General Industrial
GLA	Glenn Lukos Associates

Acronym	Definition
GPA	General Plan Amendment
Gr	Grangeville Fine Sandy Loam
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plan
GWP	Global Warming Potential
H_2O	Water Vapor
HAP	Hazardous Air Pollutants
HDT	Heavy Duty Trucks
HFCs	Hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HREC	Historical Recognized Environmental Condition
HSC	Health and Safety Code
HSWA	Hazardous and Solid Waste Amendments
HWCL	Hazardous Waste Control Law
I	Interstate
I-10	Interstate 10
I-15	Interstate 15
i.e.	that is
IEUA	Inland Empire Utility Agency
IFC	International Fire Code
in.	inches
in/sec	inches per second
in/yr	inches per year
IOU	Investor-Owned Utilities
IPCC	Intergovernmental Panel on Climate Change
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IWMA	Integrated Waste Management Act
IWMP	Integrated Waste Management Plan
JPA	Joint Powers Authority
kBTU/yr	thousand British thermal units per year
kWh	kilowatt-hour
Leq	equivalent continuous sound level
LACM	Natural History Museum of Los Angeles County
LCA	Life-cycle analysis
LCC	Land Capability Classification
LCFS	low carbon fuel standard
LE	Land Evaluation
LEA	Lead Enforcement Agency
LESA	Land Evaluation and Site Assessment

Acronym	Definition
LEV	Low-Emission Vehicle
LOS	Level of Service
LSA	Lake and Streambed Alteration Agreement
LSTs	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
MMTCO2e	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
MPH	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSL	Mean Sea Level
MT	metric ton
MTCO2e	Metric Tons of Carbon Dioxide Equivalent
MWD	Metropolitan Water District of Southern California
n.d.	no date
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NDCs	naturally determined contributions
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NGVD	National Geodetic Vertical Datum
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
N_2	Nitrogen
N_2O	Nitrous Oxide
NAHC	Native American Heritage Commission
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NPS	Non-Point Source
NRHP	National Register of Historic Places

Acronym	Definition
NTR	National Toxics Rule
NVIA	Noise and Vibration Impact Assessment
O_2	Oxygen
O_3	Ozone
OCP	organochloride pesticides
OEHHA	Office of Environmental Health Hazards Assessment
OHWM	ordinary high water mark
OPR	Office of Planning and Research
OS-2	Open Space-Natural
OS-R	Open Space Recreational
OSHA	Occupational and Safety Health Act
Pb	Lead
PCBs	Polychlorinated biphenyls
PFCs	Perfluorocarbons
POU	Public Owned Utilties
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
ppm	parts per million
PPV	Peak-Particle-Velocity
PRC	Public Resources Code
RCALUC	Riverside County ALUC
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Concerns
REMEL	Reference Energy Mean Emission Level
rms	root mean square
ROGs	Reactive Organic Gasses
R/OS	Recreation / Open Space
RP-5	Inland Empire Utility Agency's Regional Water Recycling Plant No. 5
RPS	Renewable Portfolio Standards
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SA	Site Approval
SA	Site Assessment
SANBAG	San Bernardino Associated Governments
SAR	Second Assessment Report
SARA	Superfund Amendments and Reauthorization Act
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SB 18	Senate Bill 18
SB 32	Senate Bill 32

Acronym	Definition
SB 50	Senate Bill 50, Leroy F. Greene School Facilities Act of 1998
SB 375	California Senate Bill 375, Sustainable Communities and Climate Protection Act of 2008
SB 1368	Senate Bill 1368
SB 1078	Senate Bill 1078
SBCDA	San Bernardino County Department of Agriculture
SBCM	San Bernardino County Museum
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino County Transportation Analysis Model
SCE	Southern California Edison
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SCUP	Special Conditional Use Permit
SDWA	Safe Drinking Water Act
SF/s.f.	square foot or square feet
SF_6	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SHF	Solids Handling Facility
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officer
SHRC	State Historical Resources Commission
SIP	State Implementation Plan
SLF	Sacred Lands File
SNURs	Significant New Use Rules
SoCalGas	Southern California Gas Company
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SR	State Route
SR-60	State Route 60
SR-71	State Route 71
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TEA-21	Transportation Equity Act for the 21st Century
TPM	Tentative Parcel Map
TSF	thousand square feet
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture

Acronym	Definition
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USTs	Underground storage tanks
UWMP	Urban Water Management Plan
VMT	Vehicles Miles Traveled
VOCs	Volatile Organic Compounds
WDR	Waste Discharge Requirements
WFA	Water Facilities Authority
WMI	Watershed Management Initiative
WQMP	Water Quality Management Plan
WRRA	Waste Reuse and Recycling Act
WSA	Water Supply Assessment
ZC	Zone Change
ZEC	Zero-emission vehicles
ZORI	Zones of Required Investigation

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code § 21000, *et seq.* requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2019039133, was prepared in accordance with CEQA Guidelines Article 9, §§ 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Majestic Chino Heritage Project (hereafter, the "Project" or "proposed Project"). This EIR does not recommend approval or denial of the proposed Project; rather, this EIR is a source of factual information regarding potential impacts to the physical environment that may result from the Project's implementation. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Chino will consider certifying the Final EIR and adopting required findings.

The City of Chino's preliminary analysis determined that implementation of the Project would have the *potential* to result in significant environmental impacts under 14 environmental topic areas. The City's determination was based on the completion of an Initial Study that represented the City of Chino's independent judgment pursuant to CEQA Guidelines § 15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR as *Technical Appendix A*. The 14 environmental topic areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project and that are analyzed herein include:

1. Agriculture and Forestry Resources
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Energy
6. Geology and Soils
7. Greenhouse Gas Emissions
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Noise
12. Transportation
13. Tribal Cultural Resources
14. Utilities and Service Systems

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant detailed analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations*. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (March 23, 2019); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures

that would reduce or avoid the significant adverse environmental impacts that may result from the Project. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Chino to lessen or avoid these impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*. The City of Chino applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City of Chino to monitor and enforce, 3) are legal for the City to impose, 4) have an essential nexus to the Project's impacts, and 4) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND SETTING

The "Project Site" consists of approximately 97 acres located at the southeast corner of the Mountain Avenue and Bickmore Avenue intersection within the City of Chino, San Bernardino County, California. The City of Chino is located southwest of the City of Ontario, east of the City of Chino Hills, west of the City of Eastvale, and northwest of the City of Corona. The Project Site's location is shown on Figure 3-1, *Regional Map*, Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*, in Section 3.0 of this EIR.

Under existing conditions, most of the Project Site is at an elevation below 566 feet above mean sea level (AMSL), upstream of the Prado Dam and within the Prado Dam Reservoir Area (i.e., areas at or below 566 feet AMSL). In order to develop the proposed Project as designed, the ground surface elevations of the proposed building footprints would need to be raised out of the Prado Dam Reservoir Area while simultaneously lowering the elevations of other sites within the Reservoir Area in order to maintain the Reservoir Area's overall capacity to hold water that may back up behind the dam during rare, extreme storm events. Five (5) properties are identified as prospective sources of the fill dirt for the Project Site. The five excess fill dirt sites range between approximately 1.3 and 4.2 roadway miles from the Project Site and their locations are illustrated on Figure 3-14, *Excess Fill Dirt Sites Location Map*, in Section 3.0 of this EIR

S.2.2 PROJECT SUMMARY

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the proposed Majestic Chino Heritage Project and all of the activities associated with its implementation (including planning, construction, and ongoing operation). The Project would entail the construction and operation of two cross-dock industrial buildings on the Project Site with a combined total floor area of approximately 2,082,750 square feet (s.f.). "Cross dock" means that loading docks would be positioned on two parallel sides (opposite sides) of the building. As noted above, fill dirt would be imported to the site to raise the proposed building footprints above the Prado Dam Reservoir Area. The principal discretionary actions requested by the Project Applicant to implement the proposed Project include a General Plan Amendment, Zone Change, Vesting Tentative Map, two Site Approvals, and a Special Conditional Use Permit. Refer to EIR Section 3.0, *Project Description*, for a detailed description of the proposed Project.

S.2.3 PROJECT OBJECTIVES

The fundamental purpose and goal of the Majestic Chino Heritage Project is to accomplish the orderly development of industrial buildings in the southwestern portion of the City of Chino, near designated truck routes, to increase employment opportunities in a housing rich area. This underlying purpose aligns with various aspects of the Southern California Association of Governments' (SCAG's) draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) primarily related to accommodating goods movement industries and balancing job and housing opportunities in local areas to reduce long commutes from home to work. SCAG identifies the Inland Empire as a housing rich area and coastal communities as job rich areas and is striving in their policies to achieve more equal balances locally. The Project would achieve its underlying purpose and goal through the following objectives.

A. To expand economic development, facilitate job creation, and increase the tax base for the City of Chino.

B. To establish a new industrial development area adjacent to or near an already-established industrial area.

C. To attract new businesses to the City of Chino and thereby provide a more equal jobs-housing balance in the City of Chino that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To assist the SCAG region in achieving jobs/housing balance region-wide by providing additional job opportunities in a housing rich area of the Inland Empire.

E. To develop Class A speculative industrial buildings in Chino that are designed to meet contemporary industry standards and are economically competitive with similar industrial buildings in the local area and region.

F. To attract a wide variety of users including those that can expedite the delivery of essential and life-sustaining goods to consumers and businesses in Chino and beyond the City boundary.

G. To develop a project with an architectural design and operational characteristics that embrace the historical context of the Chino dairy community, complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

H. To develop a property that has access to available infrastructure, including roads and utilities.

I. To develop industrial buildings in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.

J. To provide a viable reuse plan for former factory/commercial dairy property so that the property can again be economically productive.

K. To develop property near the Chino Airport with economically viable land uses that are compatible with the Chino Airport's land use compatibility requirements.

L. To raise planned building footprints out of the Prado Dam Reservoir Area while simultaneously excavating fill soils from other properties in the Prado Dam Reservoir Area, thereby having no net

decrease in, and actually increasing, the flood storage capacity and thereby minimizing flood hazards.

S.3 EIR PROCESS

An Initial Study was prepared by the City of Chino to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to *Technical Appendix A* for a copy of the Initial Study). For this Project, the Initial Study indicated that this EIR should focus on 14 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. The Initial Study and NOP were distributed for a 30-day public review period, which began on March 23, 2019. The City of Chino received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR. The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on April 11, 2019.

This EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the Chino Champion (a newspaper of general circulation in the Project area), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments it received on the environmental effects of the proposed Project. The Final EIR will be considered for certification by the Chino City Council. Certification of the Final EIR would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines § 15123(b)(2) requires the Lead Agency (City of Chino) to identify any known issues of controversy in the Executive Summary. The Lead Agency has not identified any issues of controversy associated with the Project after consideration of all comments received in response to the NOP. Notwithstanding, the Lead Agency has identified several issues of local concern including, but not limited to, potential impacts to air quality, biological resources, cultural resources, geology and soils, hydrology, noise, and transportation.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City, that are identified in the Initial Study prepared for the Project, and that were identified in the comment letters that the City of Chino received on this EIR's NOP (refer to *Technical Appendix A*), and comments received

during the EIR scoping meeting. Items raised in written comment to the NOP are summarized in Table 1-1, *Summary of NOP and Scoping Meeting Comments*, in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines § 15126.6, an EIR must describe a range of reasonable alternatives to the Project. A brief description of the alternatives to the Project considered in this EIR is provided below; a detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis.

S.5.1 NO DEVELOPMENT ALTERNATIVE

The No Development Alternative considers no development on the Project site beyond that which occurs under existing conditions. As such, the entire 97-acre site would remain vacant and undeveloped. Remnants of former dairy activities (e.g., concrete pads/foundations) are present on portions of the Project Site, and would remain. Under this alternative, no improvements would be made to the Project site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

S.5.2 NO PROJECT ALTERNATIVE

The No Project Alternative considers redevelopment of the Project Site in accordance with the site's existing land use designations, "Agriculture (AG)" over a majority of the site (92.25 acres) and "Recreation/Open Space (R/OS)" in the southeast corner of the site (4.75 acres). This alternative considers the potential environmental impacts that would occur under the scenario where either agricultural field crops were established on the Site, or commercial dairy operations resumed on the Site. Use of the site for agricultural field crops would entail clearing the site, preparing the soil, and rotational planting and harvesting of crops. Resumption of dairy uses on the Project Site would require the construction of dairy structures (e.g., milking barns, feeding pens, corrals), wastewater ponds, and a caretaker residence on the Site. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations contained within the City of Chino General Plan and Municipal Code under the site's existing land use and zoning designations.

S.5.3 TRAILER AND CARGO CONTAINER STORAGE ALTERNATIVE

The Trailer and Cargo Container Storage Alternative considers developing the Project Site with a 1,168,710 s.f. cross-dock industrial building (Building 1 as proposed by the Project) on the northern portion of the Project Site and developing a trailer a cargo container storage yard on the remaining approximately 42.9 acres of the property. The truck trailer and cargo container storage lot provided under this alternative would provide area to store between 850 and 1,000 trailers and storage containers. This alternative was selected by the Lead Agency to evaluate a scenario that would reduce the amount of fill dirt needed to be imported to the Project Site (truck trailer and cargo container storage areas would not need to be raised to the same degree within the Prado Dam Reservoir Area as a building footprint) and reduce the total building area on the

Project Site by approximately 44% relative to the proposed Project while still allowing productive industrial use of the entire property to meet a majority of the Project's objectives.

S.5.4 Truck Terminal Alternative

The Truck Terminal Alternative considers developing the Project Site with an approximately 175,000 s.f. truck terminal. Under this alternative, all portions of the Project Site not covered by the truck terminal building or landscaping would be used as drive aisles or parking for passenger cars, truck tractors, and trailers. This alternative was selected by the Lead Agency to evaluate a scenario where the entire Project Site could be used for productive industrial use while requiring a minimal amount of fill dirt import to the Site while still allowing productive industrial use of the entire property to meet a majority of the Project's objectives.

S.6 Summary of Impacts, Mitigation Measures, and Conclusions

S.6.1 Effects Found Not to be Significant

The scope of detailed analysis in this EIR includes the 14 subject areas identified in the Initial Study prepared under the supervision of the City of Chino pursuant to CEQA Guidelines § 15063 and CEQA Statute § 21002(e), as well as consideration of public comments received by the City on this EIR's NOP and during the EIR scoping meeting. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the City concluded that impacts clearly would be less than significant and that do not warrant detailed analysis in this EIR include: Aesthetics, Mineral Resources, Population and Housing, Public Services, Recreation, and Wildfire. This EIR addresses these six (6) topics in EIR Subsection 5.0, *Other CEQA Considerations*.

S.6.2 Impacts of the Proposed Project

Table S-1, *Mitigation Monitoring and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines § 15123(a). Also presented are the mitigation measures recommended by the City of Chino to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in four significant and unavoidable environmental effects, as summarized below.

- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (VOC and NO_X) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's *2016 AQMP*. As such, the Project would conflict with and could obstruct implementation of the *AQMP*. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis.
- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_X emissions during the limited duration of its construction, and VOCs and NO_X emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds.

Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. Therefore, Project construction-related impacts due to emissions of NO_X and operational-related impacts due to emissions of VOCs and NO_X would be significant and unavoidable on a direct and cumulatively-considerable basis

- Noise: The Project's off-site vehicular noise levels from daytime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 3 through 5. Additionally, the Project's off-site traffic noise levels from nighttime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 2 through 5. Accordingly, construction of the Project would result in a significant and temporary unavoidable noise impact due to daytime and nighttime traffic noise levels during the limited duration of soil import/export activities.

- Transportation: Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections during E+P (Building 1), E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040) traffic conditions. These deficiencies conflict with General Plan objectives and policies that include LOS standards as the measure of circulation system performance. Although adequate mitigation to address the Project's effect on circulation system performance is required in the form of fair share fee payments, the City of Chino cannot assure that the required improvements would be in place at the time of need because some of the improvement locations are either: 1) located in another city or are under the control of Caltrans and fall outside of the City of Chino's jurisdiction; and/or 2) not included in an existing mitigation funding program to ensure a date-certain installation. Thus, the Project's cumulatively-considerable impacts to Study Area intersections and due to traffic signal warrants are considered significant and unavoidable.

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Agriculture and Forestry Resources					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The conversion of the Project Site from a former commercial dairy to a non-agricultural (i.e., industrial) use would not affect any land that meets the CDC's definition of Farmland. Potential soil excavation activities at the five excess fill dirt sites would not affect Farmland.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. Implementation of the Project would change the zoning designation on the Project Site from an agricultural to non-agricultural zone. In addition, Excess Fill Dirt Site Nos. 1, 3, 4, and 5, which contain land zoned for agricultural uses and/or are subject to active Williamson Act contracts, would be temporarily precluded from the ability to establish agricultural uses during soil excavation and transport activities during a portion of the Project's construction process. However, because no agricultural activity is currently occurring on these properties and neither the Project Site nor any of the excess fill dirt sites are considered significant agricultural resources by the CDC's LESA model, implementation of the Project would not have a substantial adverse effect on local agricultural production.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: No Impact. The Project Site and the five excess fill dirt sites are not zoned for forest land; therefore, implementation of the Project would not conflict with any zoning for forest land resources.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: No Impact. There are no forest lands, timberland, or Timberland Production-zoned land on the Project Site nor any of the excess fill dirt sites; therefore, implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest use.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Less-then-Significant Impact. Implementation of the Project would not involve other changes to the existing environment, which, due to their location or nature, could result in conversion of off-site Farmland to non-agricultural use or conversion of forest land to non-forest use.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.2 Air Quality					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would emit air pollutants that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. The Project also would exceed the growth projections contained in SCAQMD's *2016 AQMP*. As such, the Project would conflict with and could obstruct implementation of the *AQMP*.	**MM 4.2-1** The Project's construction contractors shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Chino shall verify that the following notes are specified on the grading plan and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance. a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project Site and excess fill dirt sites are watered at least three (3) times daily during dry weather. Watering, with	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to grading permit issuance	Significant and Unavoidable Direct and Cumulatively-Considerable Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads. c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads. d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access). e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. f) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours. g) Any soil binders to be utilized for erosion control shall be applied as soon as possible to reduce the disturbed area subject to erosion. h) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	403. i) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.				
	MM 4.2-2 The Project's construction contractors shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Chino shall verify that the following notes are included on the grading and building plans and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance. a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning. b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM_{10}-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to grading and building permit issuance	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.2-3 Prior to grading permit issuance, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan also shall include the following notes. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino staff to confirm compliance. a) During grading activity, all construction equipment with more than 150 horsepower shall be California Air Resources Board (CARB) Tier 3 Compliant or better. b) Signs shall be placed in areas on the Project Site and on the excess fill dirt sites where haul trucks will operate, identifying applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the construction site supervisor and the CARB to report violations.	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to grading permit issuance	
	MM 4.2-4 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	CARB to report violations. Prior to the issuance of an occupancy permit, the City of Chino shall conduct a site inspection to ensure that the signs are in place.				
	MM 4.2-5 Prior to the issuance of a building permit, the Project Applicant or successor in interest shall provide documentation to the City of Chino demonstrating that the Project is designed to exceed the California Energy Code (Title 24, Part 6) standards in effect at the time of building permit application submittal by three (3) percent and includes the energy efficiency design features listed below at a minimum. a) Preferential parking locations for carpool, vanpool, EVs and CNG vehicles; b) All outdoor cargo handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) shall be non-diesel-powered; and c) All fixtures installed in restrooms and employee break areas shall be U.S. EPA Certified WaterSense or equivalent.	Project Applicant or successor in interest	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a building permit	
	MM 4.2-6 Prior to the issuance of a certificate of occupancy, the Project Applicant or successor in interest shall provide documentation to the City of Chino demonstrating that occupants/tenants of the Project Site will be provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.	Project Applicant or successor in interest	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of certificate of occupancy	
	MM 4.2-7 Legible, durable, weather-proof signs shall be placed at driveways where delivery trucks exit onto public streets that direct truck drivers to designated truck routes. The City of Chino shall confirm the required signs are installed prior to issuance of an occupancy permit.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.2-8 Prior to the issuance of a shell building permit, the City of Chino shall confirm that building plans provide an electrical room sufficiently sized to hold an electrical panel(s) to support typical building operations as well as reasonably anticipated electrical hookups that may be needed at dock doors where the loading/unloading of trailers holding refrigerated/frozen goods would be expected to occur. Prior to the issuance of a building permit and/or tenant improvement permit for any building that contains refrigerated or freezer storage, an electrical hookup shall be provided at all dock doors that are designated for the loading/unloading of trailers holding refrigerated/frozen goods, for the purpose of plugging the refrigeration units installed on such trailers into the building's electrical system. If refrigerated/freezer warehouse space is not proposed, electrical hookups at dock doors will not be required.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a shell building permit and/or tenant improvement permit for any building that contains refrigerated or freezer storage	
Thresholds b: Significant Direct and Cumulatively-Considerable Impact. Project-related activities would exceed applicable SCAQMD regional thresholds for NO_X emissions during construction and VOC and NO_X emissions during long-term operation. Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB.	Refer to MM 4.2-3 through MM 4.2-8, above.				Significant and Unavoidable Direct and Cumulatively-Considerable Impact
Threshold c: Less-than-Significant Impact. The Project's localized criteria pollution emissions during construction and operation would not exceed the applicable SCAQMD thresholds. The Project also would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds. Lastly, the Project would not cause or contribute to the formation of a	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
CO "hot spot."					
Threshold d: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.3 Biological Resources					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project Site and excess fill dirt sites contain suitable foraging and nesting habitat for the burrowing owl. In the event the burrowing owl is present on the Project Site and/or excess fill dirt sites at the time construction commences, implementation of the Project has the potential to take burrowing owl individuals. Also, Project construction activities have the potential to produce noise and use artificial lighting that could adversely affect the least Bell's vireo and/or the tri-colored blackbird.	**MM 4.3-1** Within 14 days prior to the commencement of grading activities, a qualified biologist shall conduct a survey of the planned limits of ground disturbance and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Chino prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey detects no burrowing owls in the planned limits of ground disturbance, a grading permit may be issued without restriction. b) In the event that the pre-construction survey detects the burrowing owl within planned grading limits on the Project Site, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the Project Site the Project Applicant shall comply with MM 4.3-2. c) In the event that the pre-construction survey detects the burrowing owl within planned limits of ground disturbance on Excess Fill Dirt Site Nos. 1 through 5, which are located in The Preserve Specific	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	Within 14 days prior to the commencement of grading activities	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Plan area and subject to the *City of Chino Subarea 2 Resources Management Plan*, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities at the respective excess fill dirt site, the Project Applicant shall comply with MM 4.3-3. **MM 4.3-2** Applicable to the Project Site: In the event that the pre-construction survey identifies the presence of the burrowing owl on the Project Site, then prior to the commencement of ground-disturbing activities on the property: a) Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-approved relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows. b) No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided. c) Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. d) If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with the California Department of Fish and Game 2012 Staff Report.	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	In the event that the pre-construction survey identifies the presence of the burrowing owl on the Project Site, then prior to the commencement of ground-disturbing activities on the property	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.3-3 Applicable to Excess Fill Dirt Site Nos. 1 through 5: In the event that the pre-construction survey identifies the presence of the burrowing owl at an excess fill dirt site, the Project Applicant shall ensure at minimum that Project-related activities occur in conformance with the burrowing owl mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*. a) Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-designated relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows. b) No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided. c) Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. d) If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation and the protocol established in Table 4-6 of the City of Chino Subarea 2 Resources	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	In the event that the pre-construction survey identifies the presence of the burrowing owl at an excess fill dirt site	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Management Plan. e) If the City of Chino has established a mitigation fee program for the long-term management of burrowing owl habitat as recommended by the City of Chino Subarea 2 Resources Management Plan prior to issuance of the first grading permit, then the Project Applicant shall pay the appropriate mitigation fee to the City of Chino.				
	MM 4.3-4 Prior to the issuance of a grading permit, a qualified biologist shall prepare maps showing the locations of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies located within 500 feet of Excess Fill Dirt Site Nos. 1, 3, and 4. Such locations shall be indicated on the grading plan as reference, and shall be provided to the City of Chino to be included as part of the construction management plan required as part of Mitigation Measure MM 4.3-5.	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	
	MM 4.3-5 Prior to grading permit issuance, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall include the following notes. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino or the City's designee staff to confirm compliance. a) In the event that grading, excavation, and/or soil export activities at Excess Fill Dirt Site Nos. 1, 3, and/or 4 occur during the least Bell's vireo and tri-colored blackbird nesting seasons (March 15 to September 15) and within 500 feet of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies, the Project Applicant shall install an on-site temporary noise barrier, as needed, to ensure these territories and/or	Project Biologist	City of Chino Planning Division and City of Chino Engineering Division	Prior to grading permit issuance	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	nesting colonies are not exposed to noise levels in excess of 65 dBA Leq. Noise monitoring shall occur for the duration of construction activities at Excess Fill Dirt Site Nos. 1, 3, and/or 4 as needed to ensure the least Bell's vireo and tri-colored blackbird are not exposed to construction noise that exceeds 65 dBA Leq. b) Any artificial light fixtures used on the Project Site and excess fill dirt sites during construction shall be placed in an appropriate location and include appropriate design features (e.g., shielding, cut-off devices, etc.) to preclude substantial illumination beyond the Project Site and excess fill dirt site boundaries and within 500 feet of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies.				
Threshold b: Less-than-Significant Impact. The Project would not result in permanent adverse impacts to riparian or other sensitive habitats as defined by the CDFW or USFWS.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project is designed to avoid all impacts to Corps, RWQCB, and CDFW jurisdiction waters.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: Significant Direct and Cumulatively-Considerable Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code, should habitat removal occur during the nesting season and should nesting birds be present.	**MM 4.3-6** All vegetation clearing and ground disturbance shall be prohibited during the bird nesting season (January 31 through September 1), unless a nesting bird survey is completed in accordance with the following requirements: a) A bird nesting survey of the Project Site, off-site improvement area, and excess fill dirt sites, including suitable habitat within a 250-foot radius, shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance at the respective property. A copy of the nesting bird survey results report shall be provided to the City of Chino. b) If the survey does not identify the presence of any	Project Biologist	City of Chino Development Services Department (Planning and Building Divisions)	Within three (3) days prior to initiating vegetation clearing or ground disturbance	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	active nests, then construction activities can proceed without restriction. c) If the survey identifies the presence of active nests, then the qualified biologist shall provide the City with a copy of maps showing the location of all nests and a species-appropriate buffer zone around each nest sufficient to protect the nest from substantial adverse direct and/or indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City. 1. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing. No construction vehicles shall be permitted within restricted areas (i.e., bird protection zones), unless directly related to the management or protection of the legally protected species, until all nestlings have fledged and left the nest (or the nest has failed). 2. In the event that a nest is abandoned despite efforts to minimize disturbance and, if the nestlings are still alive, the Project Applicant/Developer shall contact the California Department of Fish and Wildlife (CDFW) and, subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).				
Threshold e: Less-than-Significant Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.	**MM 4.3-7** Prior to the issuance of the first certificate of occupancy for the Project, the Project Applicant shall provide evidence to the City of Chino that all areas within the off-site improvement area and excess fill dirt sites that were disturbed during Project construction have been planted with a native hydroseed mix, with the exception of an approximately 0.8-acre area along the southern and eastern boundary of Excess Fill Dirt Site No. 4 that is to be planted with a coastal sage scrub	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of the first certificate of occupancy for the Project	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	hydroseed mix that matches the species that are present in the adjacent Mill Creek Wetlands. **MM 4.3-8** Prior to the issuance of the permit that would allow the construction of the Project's off-site storm drain connection to the Cypress Channel, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall include the following note. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino staff to confirm compliance. a) During construction of the Project's storm drain outlet within the Cypress Channel, a tarp shall be installed above the ordinary high water mark (OHWM) on the east face of the wing wall to prevent construction debris from entering the Channel; access to the Channel shall only be made on foot; all construction activities shall be performed using hand tools; and, the storm drain outlet shall be installed above the OHWM.	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of the permit that would allow the construction of the Project's off-site storm drain connection to the Cypress Channel	
Threshold f: No Impact. The Project is not subject to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.4 Cultural Resources					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. None of the historical resources present within the Project Site or the excess fill dirt sites are considered to be a significant resource pursuant to CEQA Guidelines Section 15064.5. Nonetheless, the potential exists	**MM 4.4-1** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified archaeologist (hereafter "Project Archaeologist") has been retained to conduct the training and monitoring activities described in Mitigation Measure 4.4-2 and Mitigation Measure 4.4-3.	Project Applicant	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
for Project construction activities to result in impacts to historical resources that may be buried/masked on the sites.	**MM 4.4-2** Prior to the issuance of a grading permit, the Project Applicant or construction contractor shall provide evidence to the City of Chino that the construction site supervisors and crew members involved with grading and trenching operations have received training by the Project Archaeologist to recognize historical and archaeological resources should such resources be unearthed during ground-disturbing construction activities. The training will include a brief review of the cultural sensitivity of the area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new supervisorial construction personnel involved with grading and trenching operations that begin work on the Project Site or the excess fill dirt sites following the initial training session must take the training prior to beginning work.	Project Applicant or Project Construction Contractor; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	
	MM 4.4-3 The Project Archaeologist shall conduct monitoring in the locations shown on Figure 4.4-1 through Figure 4.4-6. The Project Archaeologist shall be equipped to salvage artifacts if they are unearthed to avoid construction delays. Within the areas where full-time monitoring is required, monitoring shall occur during all grading, trenching, and excavation activities between zero and four feet below the existing ground surface. Within the areas where part-time monitoring is required, monitoring shall occur one to two times per week only during active grading, trenching, or excavation activities up to four feet below the existing ground surface. No monitoring – either part-time or	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	During monitoring activities	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	full-time – is required deeper than four feet below the existing ground surface. Should the Project Archaeologist determine that there are no archaeological resources within the Project's disturbance area or should the archaeological sensitivity be reduced to low during construction activities, archaeological monitoring activities shall be allowed to cease.				
	MM 4.4-4 If a suspected significant archaeological resource is found, the construction supervisor shall immediately halt and redirect grading operations in a 50-foot radius around the find and seek identification and evaluation of the suspected resource by the Project Archaeologist. This requirement shall be noted on all grading plans and the construction contractor shall be obligated to comply with the note. The Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to CEQA Guidelines Section 15064.5 and California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure 4.4-5 shall apply.	Project Applicant; Project Construction Contractor; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	If a suspected significant archaeological resource is found	
	MM 4.4-5 If a significant archaeological resource is discovered, ground disturbing activities shall be suspended 50 feet around the resource until a treatment plan is implemented. A treatment plan shall be prepared and implemented, subject to approval by the City of Chino, to protect the identified resource(s) from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the archaeological resource(s) in accordance with current professional archaeology standards. In the event the discovered resource(s) is or suspected to be of Native American origin, the treatment plan shall require monitoring by the appropriate Native American Tribe(s)	Project Applicant; Project Archaeologist	City of Chino Development Services Department (Planning and Building Divisions)	If a significant archaeological resource is discovered	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	during data recovery and shall require that all recovered artifacts undergo basic field analysis and documentation or laboratory analysis, whichever is appropriate. At the completion of the basic field analysis and documentation or laboratory analysis, any recovered resource(s) shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility, or, the artifacts may be delivered to the appropriate Native American Tribe(s) if that is recommended by the City of Chino. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Chino, the South Central Coastal Information Center at California State University, Fullerton, and the appropriate Native American Tribe(s).				
Threshold b: Significant Direct and Cumulatively-Considerable Impact. None of the prehistoric resources present within the Project Site or the excess fill dirt sites are considered to be a significant resource pursuant to CEQA Guidelines Section 15064.5. Nonetheless, the potential exists for Project construction activities to result in a direct and cumulatively-considerable impact to important prehistoric resources that may be buried/masked on the sites.	Refer to MM 4.4-1 through MM 4.4-5, above.				Less-than-Significant Impact after Mitigation
Threshold c: Less-than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et seq. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
impacts to human remains.					
4.5 Energy					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.6 Geology and Soils					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State ordinances and building codes including, but not limited to, the CBSC (Chapter 18) and City of Chino Municipal Code § 19.08.010, would ensure that the Project minimizes potential hazards related to seismic ground shaking.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold b: Less-than-Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. The issuance of a National Pollutant Discharge Elimination System (NPDES) permit will be required for construction activities and construction activities will be required to adhere to a Storm Water Pollution Prevention Plan (SWPPP), SCAQMD Rule 403, and Chino Municipal Code § 19.09.03 to minimize construction-related water and wind erosion. The Project Applicant or successors in interest also will be required to implement a Water Quality Management Plan (WQMP) during the lifetime of the Project's operation, which would preclude substantial erosion impacts in the long-term.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project Site and the excess fill dirt sites are not located within mapped liquefaction, landslide, or other soil hazard zones. Furthermore, the City of Chino will require that the Project be constructed in conformance with the Project Site's geologic engineering report to preclude potential hazards related to unstable soils.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: Less-than-Significant Impact. The Project Site and the excess fill dirt sites contain expansive soils; however, mandatory compliance with the recommendations contained within the Project Site's geologic engineering report will ensure that expansive soils are adequately attenuated to preclude substantial direct or indirect risks to life or property.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project Site or any of the proposed excess fill dirt sites. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project Site and the excess fill dirt sites contain alluvium soils with a high sensitivity for paleontological resources. Accordingly, Project construction activities have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface if the resources are not properly identified and treated.	**MM 4.6-1** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified paleontologist has been retained to conduct monitoring of grading and excavation operations in areas identified in MM 4.6-2.	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation
	MM 4.6-2 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments. Full time monitoring shall occur for earthwork and excavations at depths greater than four (4) feet below the ground surface. Periodic monitoring (one to two visits per week) shall be performed for earthwork and excavations between two (2) and four (4) feet below the ground surface. No monitoring is required for earthwork and excavations at the ground surface and up to two (2) feet below the ground surface. The paleontological monitor shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that may contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow the removal of abundant and large	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	During monitoring activities	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	specimens in a timely manner. In such a situation, the monitor may establish a 50-foot radius surrounding the area of the find, and, construction activities in areas outside this 50-foot radius can proceed. The significance of the discovered resources shall be determined by the paleontologist. If the resource is significant, Mitigation Measure MM 4.6-3 shall apply. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources. **MM 4.6-3** If a significant paleontological resource is discovered on the Project Site or any of the excess fill dirt sites, discovered fossils or samples of such fossils shall be collected and identified by a qualified paleontologist. Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontological storage. A qualified paleontologist shall prepare a final report that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils, and contains evidence that the resources were curated by an established museum repository. The report shall be submitted to the City of Chino prior to issuance of the first certificate of occupancy.	Project Applicant; Project Paleontologist	City of Chino Development Services Department (Planning and Building Divisions)	If a significant paleontological resource is discovered on the Project Site or any of the excess fill dirt sites	
4.7 Greenhouse Gas Emissions					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would be conditioned to comply with the City of Chino CAP. The City of Chino's CAP is a geographically-specific GHG emissions reduction plan that was adopted by the City for purposes of reducing City-wide GHG emissions in a manner consistent with AB 32 and	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
applicable State legislation. Further, the validity of the City's CAP was challenged and the challenge was dismissed by the California Superior Court. As such, the Court upheld the validity of the CAP. Therefore, implementation of the Project would not generate substantial GHG emissions – either directly or indirectly – that would have a significant impact on the environment.					
Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.8 Hazards and Hazardous Materials					
Summary of Impacts					
Thresholds a and b: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: No Impact. The Project site is not located within one-quarter mile of any existing or proposed school and only temporary soil excavation and exporting activity is proposed on the excess fill dirt sites, which would not pose a significant hazard to school sites. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold d: No Impact. Neither the Project Site nor any of the excess fill dirt sites are located on any list of hazardous materials sites complied pursuant to Government Code § 65962.5.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold e: Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the 1991 Chino ALUCP and 2008 Chino ALUCP. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f: Less-than-Significant Impact. The Project Site and proposed excess fill dirt sites do not contain any emergency facilities or serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold g: No Impact. The Project Site is not located in close proximity to wildlands or areas with high fire hazards. In addition, the proposed excess fill dirt sites are only be utilized for temporary soil exporting activity – no development would occur; therefore, no people or structures would be exposed to a significant wildland fire risk.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.9 Hydrology and Water Quality					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
degrade surface or ground water quality. Adherence to a NPDES Permit, SWPPP and WQMP, as well as compliance with City of Chino Municipal Code Chapter 13.25, are required as part of the Project's implementation to address construction- and operational-related water quality.					
Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Chino Groundwater Basin. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Basin.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project's construction and operational activities would be required to comply with applicable water quality regulatory requirements to minimize erosion, siltation, and water quality pollutants. Additionally, the Project would not result in flooding and would not adversely affect the capacity of the Prado Dam Reservoir Area that would impede or redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. The Project Site and excess fill dirt sites would not be subject to inundation from tsunamis, seiches, or other hazards. The capacity of the Prado Dam Reservoir Area would be improved as a result of the Project.	No mitigation is required.	N/A	N/A	N/A	No Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold e: Less-than-Significant Impact. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.10 Land Use and Planning					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project would not physically divide an established community.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The Project's proposed General Plan Amendment and Zone Change would eliminate inconsistencies between the proposed land uses and the Project Site's existing General Plan land use designations and zoning classifications. The Project would not cause a significant environmental impact due to a conflict with any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, beyond those conflicts that already are identified as significant impacts in other Subsections of this EIR.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.11 Noise					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively Considerable Impact. The Project would expose one noise-sensitive receptor location (i.e., Receptor R10, the location of one existing home and the planned location of future residential community) abutting the northwest corner of Excess Fill Dirt Site No. 4 to excessive construction noise *only if* this location is occupied by residents at the time proposed dirt excavation and export activity occurs.	**MM 4.11-1** Prior to issuance of any grading permits or other approvals involving the excavation and/or export of earth materials at Excess Fill Dirt Site No. 4, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall be prepared outlining the noise reduction measures to be implemented during excavation and export activities at Excess Fill Dirt Site No. 4 *only if* the location of	Project Applicant; Project Construction Contractors	City of Chino Development Services Department (Planning and Building Divisions)	Prior to issuance of any grading permits or other approvals involving the excavation and/or export of earth materials at Excess Fill Dirt Site No. 4	Significant and Unavoidable Direct and Cumulatively-Considerable Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
In addition, the Project's traffic noise contributions during construction-related soil export activities at the excess fill dirt sites would expose noise-sensitive receptors located along the haul route to noise levels exceeding established noise level standards.	Receptor R10 (an existing residential home south of Chino Corona Road and west of Excess Fill Dirt Site No. 4 and the planned location of a future master-planned residential community) is occupied with residents at the time of the proposed construction activities at Excess Fill Dirt Site No. 4. Project contractors shall be required to comply with at least one of the abatement measures listed below ensure that the location of Receptor R10 would not be exposed to construction noise that exceeds 65 dBA Leq, or implement an alternative approved by the City of Chino that provides an equivalent level of noise attenuation, and maintain written records of such compliance that can be inspected by the City of Chino upon request. a) An eight (8)-foot-tall construction noise barrier shall be constructed along the northwest corner of Excess Fill Dirt Site No. 4 abutting property with an occupied residential structure. The location and maximum extent of the construction noise barrier is illustrated on EIR Figure 4.11-6, *Construction Noise Mitigation*, and Exhibit ES-C from the report titled "Majestic Chino Heritage Noise Impact Analysis," prepared by Urban Crossroads and dated August 12, 2019. The construction noise barrier shall meet the following minimum standards: i.) The temporary noise barrier shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to a construction site perimeter fence or equivalent temporary fence posts or barrier materials; ii.) The noise barrier must be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired;				

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	and iii.) The noise control barrier and associated elements shall be completely removed upon the conclusion of the construction activity; or b) The construction contractor shall install sound dampening mats or blankets capable of a minimum 5 dBA noise reduction to the engine compartments of heavy mobile equipment operating within the portion of the Project's off-site development area that abuts the intersection of Comet Avenue/County Road and Chino Corona Road. The sound dampening mats can be made from commercially-available sound dampening materials, including but not limited to, polyurethane foam and vinyl sheeting; or c) Construction contractors shall prohibit the use of large construction equipment (greater than 80,000 pounds) within 170 feet of any occupied residential structure at the location of Receptor R10. Construction contractors shall use small rubber-tired or alternative equipment within this buffer area during construction.				
Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The Project Site is not located within an area exposed to high levels of noise from the Chino Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.12 Transportation					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. During near-term construction activities, the Project would cause and contribute to	**MM 4.12-1** Prior to the issuance of grading permits and building permits, the Project Applicant/Developer shall develop and implement a City-approved Construction Traffic Management Plan that addresses	Project Applicant/Developer	City of Chino Development Services Department	Prior to the issuance of grading permits and building permits	Less-than-Significant Direct and Cumulatively-Considerable Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
conflicts with applicable General Plan performance objectives and policies, including LOS standards, to Study Area intersections due to combined soil import activities, heavy equipment delivery /removal, delivery of construction materials, and construction worker trips. During Project operations, the Project would contribute substantial traffic to Study Area intersections under all study scenarios. Under Horizon Year (2040) conditions, the Project also would contribute to the need to install a traffic signal at the SR-71 Northbound Ramps at Pine Avenue intersection (Intersection #5). The Project would not contribute substantial traffic to freeway mainlines, freeway merge/diverge ramp junctions, and freeway off-ramp queuing locations under all study scenarios.	potential construction-related traffic detours and disruptions. The Construction Traffic Management Plan shall ensure to the extent practical that (a), construction worker commute traffic and building material deliveries occur during off-peak hours; (b) construction worker commute traffic uses direct routes to/from freeways; and (c) delivery and removal of heavy equipment use designated truck routes and not occur during the morning and evening peak periods of 7:00 AM to 9:00 AM or 4:00 PM to 6:00 PM.		(Planning and Building Divisions)		after Mitigation (Construction Impacts); Significant and Unavoidable Cumulatively-Considerable Impact (Operational Impacts)
	MM 4.12-2 As a condition of grading permits, the City shall ensure that the Project Applicant/Developer limits truck trips associated with soil import hauling activity between the Project Site and Excess Fill Dirt Site Nos. 1 through 5 to a maximum of 50 PCE truck trips per hour (combined) between the hours of 7:00 AM to 9:00 AM and between the hours of 4:00 PM to 6:00 PM. The 50 PCE truck trips equates to approximately 16 total trucks (8 trucks in and 8 trucks out) per hour during the hours specified above in order to limit the potential impacts of haul truck activity during these busy commute times. This requirement also shall be specified in bid documents issued to prospective construction contractors involved with excess fill dirt hauling and shall be specified in construction contracts involving excess fill dirt hauling.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	As a condition of grading permits	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	MM 4.12-3 Prior to the issuance of building permits, the Project Applicant/Developer shall comply with the applicable requirements of City of Chino Development Impact Fee (DIF) program pursuant to City of Chino Municipal Code Chapter 3.40 (Development Impact Fees), which requires fee payment to the City of Chino (less any fee credits), a portion of which is used by the City to fund the installation of road and intersection improvements to reduce traffic congestion.	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of building permits	
	MM 4.12-4 Prior to the issuance of an occupancy permit for either of the proposed buildings, the Project Applicant/Developer shall make appropriate fair-share payments to the appropriate jurisdiction (City of Chino, City of Chino Hills, or City of Eastvale), to be held in trust, for the intersection improvements listed in Table 1-3 of the "Majestic Chino Heritage Traffic Impact Analysis," prepared by Urban Crossroads (dated August 13, 2019). The Project's mitigation obligations are listed in Table 9-1 of the same report under the "Project Responsibility" column, the Project's fair share percentage (for full Project Buildout) is listed under the "Fair Share %" column of Table 9-1, while Table 1-1 of the same report identifies the governing jurisdiction(s) for each of the Study Area intersections. Based on the Project's trip generation for Building 1 and Project Buildout (refer to Table 4.12-10), the Project Applicant would be required to contribute 55.8% of the total fair share amount prior to occupancy of either Building 1 or Building 2, while the remaining 44.2% of the required fair-share contribution shall be required prior to occupancy of Project Buildout (i.e., both Buildings 1 and 2). The City of Chino, City of Chino Hills, and/or City of Eastvale shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino, City of Chino Hills, and/or City of Eastvale has not completed the improvements or established a fair-share funding program for the	Project Applicant/Developer	City of Chino Development Services Department (Planning and Building Divisions)	Prior to the issuance of an occupancy permit for either of the proposed buildings	

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	specified improvements to the respective intersections, then the City of Chino, City of Chino Hills, and/or City of Eastvale shall return the funds to the Project Applicant/Developer.				
Threshold b: No Impact. Pursuant to CEQA Guidelines Section 15064.3(c), the City of Chino has until July 1, 2020, to implement CEQA Guidelines Section 15064.3(b). At the time this Draft EIR was circulated for public review, the City had not implemented CEQA Guidelines Section 15064.3(b).	No mitigation is required.	N/A	N/A	N/A	
Threshold c: Less-than-Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: No Impact. Adequate emergency access would be provided to Excess Fill Dirt Site Nos. 1 through 5 during soil importing activities and to the Project Site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.13 Tribal Cultural Resources					
Summary of Impacts					
Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project Site and excess fill dirt sites do not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential, however unlikely, to	**MM 4.13-1** Prior the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that the Native American Tribe that requested consultation with the City during the SB 18 and AB 52 processes (hereafter referred to as "Native American Tribal Representative") received a minimum of 14 days' advance notice of all mass grading and trenching activities. The Native American Tribal Representative also shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. In the event that suspected tribal cultural resources are unearthed, the Native American	Project Applicant; Project Construction Contractor	City of Chino Development Services Department (Planning and Building Divisions)	Prior the issuance of a grading permit	Less-than-Significant Impact after Mitigation

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
unearth and adversely impact tribal cultural resources that may be buried or masked at the Project Site and/or at the excess fill dirt sites.	Tribal Representative shall have the authority to temporarily redirect earth moving activities in the affected area and Mitigation Measures 4.4-4 and 4.4-5 shall apply.				
4.14 Utilities and Service Systems					
Summary of Impacts					
Threshold a: Less-than-Significant Impact. The Project's construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, and telecommunications facilities, would not cause significant environmental effects not already identified and mitigated to the maximum feasible extent throughout this EIR.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: Less-than-Significant Impact. The City of Chino is expected to have sufficient water supplies to service the Project. The Project would not exceed the City's available supply of water during normal years, single-dry years, or multiple-dry years.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: Less-than-Significant Impact. The IEUA would provide wastewater treatment services to the Project Site via RP-5. This facility has adequate capacity to service the Project and other cumulative developments and no new or expanded facilities would be needed.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: Less-than-Significant Impact. There is adequate capacity available at the El Sobrante Landfill to accept the Project's solid waste during both construction and long-term operation. The proposed Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Threshold e: Less-then-Significant Impact. The Project would comply with federal, State, and local management and reduction statues and regulations related to solid waste.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

1.0 INTRODUCTION

This Environmental Impact Report (EIR) is an informational document that represents the independent judgment of the City of Chino, acting as the Lead Agency pursuant to the California Environmental Quality Act (CEQA), and evaluates the physical environmental effects that could result from planning, constructing, and operating the proposed Majestic Chino Heritage project (hereafter, the "Project").

1.1 DEFINITION OF TERMS

Within this EIR, the following terms shall have the following meanings:

When the term "Project" is used in this EIR with the initial letter capitalized, the term shall mean all aspects of the planning, construction, and operation of Majestic Chino Heritage, including the issuance and implementation of all required discretionary and administrative approvals and permits (which include but are not limited to General Plan Amendment PL18-0090, Zone Change PL18-0091, Vesting Tentative Parcel Map PL19-0119, Site Approvals PL19-0118 & PL18-0120, and Special Conditional Use Permit PL19-0011 by the City of Chino and the permits and approvals required by other agencies including but not limited to those listed in Section 3.0, *Project Description*, of this EIR).

When the term "Project Applicant" is used with the initial letters capitalized, the term shall mean Majestic Realty Co., which is the entity that submitted applications to the City of Chino to entitle the Project as proposed and as evaluated in this EIR.

When the term "Land Owner" is used with the initial letters capitalized, the term shall mean the Orange County Flood Control District, which is the owner of the Project Site (defined below) and the five excess fill dirt sites (defined below) that are part of the proposed Project. Majestic Realty Co. has an agreement with the Orange County Flood Control District for the development of the Project Site and the transport of earth material from the excess fill dirt sites to the Project Site.

When the term "Project Site" is used with the initial letters capitalized, the term shall mean the approximately 97-acre property located at the southeast corner of the Mountain Avenue and Bickmore Avenue intersection, which is the subject of proposed General Plan Amendment PL18-0090, Zone Change PL18-0091, Vesting Tentative Parcel Map PL19-0119, Site Approvals PL19-0118 & PL18-0120, and Special Conditional Use Permit PL19-0011 as described in this EIR. Under existing conditions, most of the Project Site is at an elevation below 566 feet above mean sea level (AMSL), which puts the Site upstream of and within the Reservoir Area of the Prado Dam (i.e., areas at or below 566 feet AMSL).

When the term "excess fill dirt sites" is used, the term shall mean the five prospective sites identified in this EIR located within the Reservoir Area of the Prado Dam that would be used to provide fill dirt to raise the proposed building footprints on the Project Site to 567 AMSL or above. This would enable the Project's construction, while simultaneously lowering the elevations of other sites within the Reservoir Area to maintain the area's overall capacity to hold water that may back up behind the Prado Dam during rare, extreme storm events.

When the term "off-site improvement(s)" is used, the term shall mean any and all infrastructure improvements that would be required to be installed in association with the Project as described in this EIR and/or in the conditions of approval that the City applies to proposed Vesting Tentative Parcel Map PL19-0119, Site Approvals PL19-0118 & PL18-0120, or Special Conditional Use Permit PL19-0011.

1.2 PURPOSES OF CEQA AND THIS EIR

As stated by the California Environmental Quality Act (CEQA) Guidelines Section (§) 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed development activities involving discretionary government approvals (including the approval of private development projects);
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why the governmental agency approved the project in the manner the agency chose (if the project involves significant environmental effects).

As the first step in the CEQA compliance process, the City of Chino prepared an Initial Study pursuant to CEQA Guidelines § 15063. The Initial Study determined that the Project has the *potential* to cause or contribute to significant environmental effects, and a Project EIR, as defined by CEQA Guidelines § 15161, would be required. Accordingly, this document serves as a Project EIR.

Pursuant to CEQA Guidelines § 15161, this Project EIR shall "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation." Also, in conformance with CEQA Guidelines § 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.3 SUMMARY OF THE PROJECT EVALUATION BY THIS EIR

The Project Applicant proposes to construct and operate two industrial buildings on an approximately 97-acre property (the "Project Site") located at the southeast corner of Mountain Avenue and Bickmore Avenue in the City of Chino, San Bernardino County, California. The Project includes a variety of improvements to the Project Site, including but not limited to drive aisles, surface parking areas, truck courts, landscaping, utility infrastructure, water quality basins, exterior lighting, walls/fencing, and signage. The Project also includes roadway frontage improvements to Mountain Avenue and Bickmore Avenue and the installation of an off-site

storm drain line that would outlet at an existing concrete wingwall at the terminus of the existing concrete-lined Cypress Channel located east of the Project Site. As part of the Project's construction process, the Project Site will be raised so that the proposed finished floor elevations of the two proposed industrial buildings would be at an elevation of 567 feet AMSL or above, thereby raising the finished floor of the buildings out of the Prado Dam Reservoir Area, which will be achieved by the import of fill dirt from other properties. Five (5) such excess fill dirt sites where fill dirt is can be obtained are analyzed in this EIR.

The Project Applicant has filed applications for the following discretionary actions, which are under consideration by the City of Chino:

- **General Plan Amendment (GPA) PL18-0090** proposes to amend the City of Chino General Plan Map to change the land use designation for the Project Site from "Agriculture" (AG) and "Recreation/Open Space" (R/OS) to "General Industrial" (GI).
- **Zone Change (ZC) PL18-0091** proposes to amend the City of Chino Zoning Map to change the zoning designation for the Project Site from "General Agriculture" (AG) and "Open Space-Natural" (OS-2) to "General Industrial" (M2).
- **Vesting Tentative Parcel Map (TPM) PL18-0119** proposes to consolidate the 10 parcels that comprise the Project Site into two (2) parcels to facilitate the implementation of Site Approval PL18-0118 and Site Approval PL18-0120, described below.
- **Site Approvals (SA) PL18-0118 and PL18-0120** describe and illustrate the key features and characteristics of the two proposed industrial buildings, including conceptual site layout; vehicular and pedestrian circulation; on-site parking; building size, height, location; architectural character; and landscape design. Site Approval PL18-0118 provides for the development of an approximately 1,168,710 s.f. cross-dock industrial building with 248 loading docks on the northern portion of the Project Site. Site Approval PL18-0120 provides for the development of an approximately 914,040 s.f. cross-dock industrial building with 146 loading docks on the southern portion of the Project Site.
- **Special Conditional Use Permit (SCUP) PL19-0011** is required for Project conformance with the City of Chino Municipal Code, which requires the approval of a SCUP for buildings that have loading docks facing a public street.

1.4 Prior CEQA Review

The Project Site, the Project's off-site improvement areas, and excess fill dirt sites are located within the geographical limits of the City of Chino and are covered by the City's General Plan (Chino, 2010a). The General Plan was approved by the City of Chino in 2010 and provides the fundamental basis for the City's land use and development policies. The City's General Plan was the subject of an environmental review under CEQA; a Program EIR for the City's General Plan was certified by the City of Chino in 2010 (State Clearinghouse Number 2008091064) (Chino, 2010b). The Program EIR contains information relevant to the Project Site, the Project's off-site improvement areas, and excess fill dirt sites. Thus, the Program EIR for the City's General Plan is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for public review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710.

1.5 LEGAL AUTHORITY

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, § 15000 *et seq.*).

Pursuant to CEQA § 21067 and CEQA Guidelines Article 4 and § 15367, the City of Chino is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action on any approvals for the Project, the City of Chino has the obligations to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Chino's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§ 15090 through 15093).

Pursuant to CEQA Guidelines §§ 15040 through 15043, and upon completion of the CEQA review process, the City of Chino will have the legal authority to do any of the following:

- Approve the Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Deny approval of the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for proposed General Plan Amendment PL18-0090, Change of Zone PL18-0091, Vesting Tentative Parcel Map PL18-0119, Site Approvals PL18-0118 & PL18-0120, Special Conditional Use Permit PL19-0011, and all other governmental discretionary and administrative actions related to the Project.

1.6 RESPONSIBLE AND TRUSTEE AGENCIES

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines § 15082 and § 15086(a)). As defined by CEQA Guidelines § 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency that have discretionary approval power over the project." A "Trustee Agency" is defined in CEQA Guidelines § 15386 as "a state

agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, the Santa Ana Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) are identified as a Trustee Agencies. The Santa Ana RWQCB is responsible for the protection of California's water resources and water quality and would be responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after Project construction, Project-related water flows do not result in substantial siltation, erosion, or degradation of surface or subsurface water quality. The Project does not propose any actions that would require a CDFW permit or approval, although the CDFW's relocation protocol would be followed for the burrowing owl if required pre-construction borrowing owl surveys identify the species on land proposed to be disturbed by the Project.

The U.S. Army Corps of Engineers (ACOE) is identified as a Responsible Agency pertaining to approvals associated with (i) a Real Estate action with Section 408-level review associated with excavation and import of fill dirt from up to five excess fill dirt sites to the Project Site; (ii) construction approval for the placement of an off-site storm drain line on ACOE-owned property immediately east of the Project Site; and (iii) construction approval for the grading of a small area of ACOE-owned land located at the southeast corner of Chino Corona Road and East County Road (identified as proposed Excess Fill Dirt Site No. 4).

There are no other known Trustee Agencies or Responsible Agencies identified for the Project. Regardless, this EIR can be used by any Trustee Agency or Responsible Agency, whether identified in this EIR or not, as part of their decision-making processes in relation to the proposed Project.

1.7 EIR Scope, Format, and Content

1.7.1 EIR Scope

An Initial Study was prepared by the City of Chino to preliminarily identify the environmental issue areas that may be adversely impacted by the Project's implementation. Following completion of the Initial Study, the City filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on March 23, 2019, for a 30-day public review period. The NOP was distributed for review to solicit public input to help the City identify the full scope and range of potential environmental concerns associated with the Project so that these topics could be fully examined in this EIR. In addition, a publicly-noticed EIR Scoping Meeting was held at the Chino City Council Chambers on April 11, 2019, which provided members of the general public an additional opportunity to comment on the scope of environmental issues to be addressed in this EIR.

Based on the information contained in the Initial Study and in consideration of all comments received by the City in response to the NOP and during the EIR Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following topic areas:

- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

The topics listed above are evaluated in EIR Section 4.0, *Environmental Analysis*.

The Initial Study, NOP, public review distribution list, and written comments received by the City during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP and during the EIR Scoping Meeting are summarized below in Table 1-1, *Summary of NOP and Scoping Meeting Comments*. The purpose of this table is to present the primary environmental issues of concern raised by public agencies and the general public during the NOP review period and Scoping Meeting. Table 1-1 is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR.

Table 1-1 Summary of NOP and Scoping Meeting Comments

Topic of Concern	Comments Received During NOP Review Period and/or EIR Scoping Meeting	Location in EIR Where Comment is Addressed
Aesthetics	- Request for the EIR to address impacts of the post-development visual character of the excess fill dirt sites.	- Subsection 5.0, *Other CEQA Considerations.*
Air Quality	- Recommendation to use the SCAQMD's CEQA Air Quality Handbook (1993) when preparing the Project's air quality analysis.	- Subsection 4.2, *Air Quality*
	- Recommendation to use the CalEEMod land use emissions software when preparing the Project's air quality analysis.	
	- Request to identify any potential adverse air quality impacts that could occur from all phases of the Project (including construction and operation) and all air pollutant sources related to the Project.	
	- Request to quantify criteria pollutant emissions and compare the results to applicable SCAQMD regional and localized significance thresholds (LSTs).	
	- Request that the EIR disclose the potential for the Project to result in adverse health effects related to diesel emissions.	
	- Recommendation that the Project incorporate design/mitigation measures to reduce air pollutant emissions.	.

Table 1-1 Summary of NOP and Scoping Meeting Comments

Topic of Concern	Comments Received During NOP Review Period and/or EIR Scoping Meeting	Location in EIR Where Comment is Addressed
Air Quality (cont.)	- Request to analyze air quality impacts affecting residential properties located adjacent to the excess fill dirt sites.	- Subsection 4.2, *Air Quality.*
Biological Resources	- Request to analyze the effect(s) of excavation activities on the excess fill dirt sites to any biological resources that may exist on the subject properties.	- Subsection 4.3, *Biological Resources.*
Cultural Resources	- Request to include a mitigation plan with provisions for the identification and evaluation of any discovered prehistoric archeological resources, for the disposition of recovered cultural items that are not burial associated, and for the discovery of Native American human remains.	- Subsection 4.4, *Cultural Resources*, and Subsection 4.13, *Tribal Cultural Resources*
	- Request coordination and consultation with NAHC and local Native American contacts pursuant to Senate Bill 18 (SB 18) and Assembly Bill (AB 52).	
Geology and Soils	- Request to analyze potential erosion impacts resulting from excavating soil from the excess fill dirt sites.	- Subsection 4.6, *Geology and Soils.*
Hydrology	- Request to analyze the Project's consistency with the City's Master Plan of Drainage.	- Subsection 4.9, *Hydrology and Water Quality*, and Subsection 4.14, *Utilities and Service Systems*
	- Request to analyze effects of excavations on the excess fill dirt sites on flood flows, flood storage, and stormwater drainage.	
Noise	- Request to analyze the effects of Project construction noise, including effects to properties abutting the excess fill dirt sites.	- Subsection 4.11, *Noise.*
Transportation	- Request that the Project's traffic study: 1) use data that is no more than 2 years old; 2) be based on SCAG 2016 Regional Transportation Plan (RTP) Model; and 3) use the Highway Capacity Manual 6.	- Subsection 4.12, *Transportation*
	- Request that the Project's traffic study: 1) analyze impacts according with San Bernardino County Transportation Authority (SBCTA) and Congestion Management Program (CMP) guidelines; 2) evaluate all intersections expected to carry 50+ peak hour trips; 3) include cumulative projects within Ontario; and 4) review feasibility and constructability for all mitigation measures identified in the City of Ontario.	

1.7.2 EIR Format and Content

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statute and Guidelines (California Public Resources Code, § 21000 *et. seq.* and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA-Required Topics*, provides a quick reference guide for locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA-Required Topics

CEQA Required Topic	CEQA Guidelines Reference	Location in this EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§ 15126.2(c)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§ 15126.2(d)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§ 15126.2(e)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.4
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	§ 15126.2(b) & Appendix F	Subsection 4.5

In summary, the content and format of this EIR is as follows:

- **Section S.0, Executive Summary**, provides an overview of the EIR document and CEQA compliance process. The Project, including its objectives, is described, and the location and regional setting of the Project Site, off-site improvement areas, and excess fill dirt sites is documented. In addition, the Executive Summary discloses that there are no potential areas of controversy related to the Project and identifies a reasonable range of potential alternatives to the proposed Project as required by CEQA. Finally, the Executive Summary provides a summary of the Project's environmental impacts, mitigation measures, and the EIR's conclusions, in a table that forms the basis of the Project's Mitigation, Monitoring, and Reporting Program (MMRP).
- **Section 1.0, Introduction**, provides introductory information about the CEQA compliance process and the responsibilities of the City of Chino, serving as the Lead Agency for this EIR, a brief description of the Project, the purpose of the EIR, and an overview of the EIR format.
- **Section 2.0, Environmental Setting**, describes the environmental setting, including descriptions of the Project Site's and excess fill dirt sites' physical conditions and surrounding context used as the baseline for analysis in this EIR.

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines § 15123. This section provides a detailed description of the Project, including its underlying purpose, main objectives, design features, construction characteristics, and operational characteristics expected over the Project's lifetime, should the Project be approved and development occurs on the property as proposed. In addition, the discretionary actions required of the City of Chino and other government agencies to implement the Project are discussed.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulatively-considerable impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also describe the terms "effects" and "impacts" as being synonymous (CEQA Guidelines § 15358).

  In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementing the proposed Project. Impacts are evaluated on a direct, indirect, and cumulative basis. Direct impacts are those that would occur directly as a result of the proposed Project. Indirect impacts represent secondary effects that would result from Project implementation. Cumulative effects are defined in CEQA Guidelines § 15355 as "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

  The analyses in Section 4.0 are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and are cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. Mitigation measures must be fully enforceable, have an essential nexus to a legitimate governmental interest, and be "roughly proportional" to the impacts of the Project (CEQA Guidelines § 15126.4(a)). The discussion then indicates whether the identified mitigation measures would reduce impacts to below a level of significance. In most cases, implementation of the mitigation measures would reduce the adverse environmental impacts to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the City of Chino pursuant to CEQA Guidelines § 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects; a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented; and potential growth-inducing aspects of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during preparation

of the Initial Study for the Project and the NOP public review process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's significant environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. Four (4) alternatives, including the CEQA-required No Project Alternative, are evaluated in detail in Section 6.0.
- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

1.7.3 Incorporation by Reference

CEQA Guidelines § 15147 states that the "information contained in an EIR shall include summarized information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "[p]lacement of highly technical and specialized analysis and data in the body of an EIR shall be avoided through the inclusion of supporting information and analyses as appendices to the main body of the EIR." CEQA Guidelines § 15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of this EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

This EIR relies on a number of Project-specific technical reports that are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710, during the City's regular business hours or can be requested in electronic form by contacting the City Planning Division, during the City's regular business hours. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A: Initial Study, Notice of Preparation (NOP), and Written Comments on the NOP
B1: Air Quality Impact Analysis
B2: Mobile Source Health Risk Assessment
B3: Supplemental Air Quality Assessment
B4: Supplemental Air Quality, Greenhouse Gas, and Energy Analysis Memo
C: Biological Technical Report
D: Phase 1 Cultural Resources Assessment
E: Energy Analysis
F1: Geotechnical Report
F2: Geotechnical Report for Excess Fill Dirt Site #1
F3: Geotechnical Report for Excess Fill Dirt Site #2

F4: Geotechnical Report for Excess Fill Dirt Site #3
F5: Geotechnical Report for Excess Fill Dirt Site #4
F6: Geotechnical Report for Excess Fill Dirt Site #5
G: Paleontological Assessment
H: Greenhouse Gas Emissions Analysis
I1: Phase I Environmental Site Assessment
I2: Phase I Environmental Site Assessment for Excess Fill Dirt Site #1
I3: Phase I Environmental Site Assessment for Excess Fill Dirt Site #2
I4: Phase I Environmental Site Assessment for Excess Fill Dirt Site #3
I5: Phase I Environmental Site Assessment for Excess Fill Dirt Site #4
I6: Phase I Environmental Site Assessment for Excess Fill Dirt Site #5
I7: Soil Sampling and Laboratory Analyses Summary Report
J1: Preliminary Hydrology Report
J2: Post Construction Hydrology – Excess Fill Dirt Sites Memo
K: Preliminary Water Quality Management Plan
L: Noise Impact Analysis
M: Traffic Impact Analysis
N: Water Supply Assessment

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*. In most cases, reference documents and information obtained from websites that are not included or cited in the EIR's Technical Appendices are cited in Section 7.0 by a link to the online location where the document/website can be viewed. References relied upon by this EIR also will be available for public review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710, during regular City business hours.

2.0 Environmental Setting

2.1 Regional Setting and Location

The approximately 97-acre Project Site, off-site improvement areas, and five excess fill dirt sites evaluated in this EIR are located in the City of Chino in the southwest portion of San Bernardino County, California. The City of Chino is located southwest of the City of Ontario, east of the City of Chino Hills, west of the City of Eastvale, and northwest of the City of Corona. Specifically, the Project Site is (in direct linear distance) approximately 1.0-mile east of State Route 71 (SR-71), approximately 6.5 miles west of Interstate 15 (I-15), and approximately 5.0 miles south of State Route (SR-60). The Chino Airport is located approximately 1.6 miles to the northeast of the Project Site. The Site's location in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

The Project Site, off-site improvement areas, and five excess fill dirt sites are located in an urbanizing area of southern California commonly referred to as the "Inland Empire." The Inland Empire is an approximate 28,000 square-mile region comprising San Bernardino County, Riverside County, and eastern Los Angeles County. According to the California Department of Finance, the estimated 2019 population of San Bernardino County was 2,192,203 persons (DOF, 2019, E-1). The Southern California Association of Governments (SCAG) forecast models predict that the population of San Bernardino County will grow to approximately 2.73 million persons by the year 2040 (SCAG, 2016) and 2.815 million persons by the year 2045 (SCAG, 2019b, p. 27).

2.2 Local Setting and Location

The Project Site is located at the southeast corner of Mountain Avenue and Bickmore Avenue as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. The Project Site is comprised of the following 10 Assessor Parcel Numbers (APNs) 1027-241-01, -02; 1027-231-01; 1027-371-01; 1027-381-01, -02; 1056-201-01; 1056-331-01, -06; and 1056-341-01. The Project's off-site storm drain improvement alignment extends from the southeastern corner of the Project Site, across APNs 1027-451-02, 1056-351-01 and 1056-351-02, to an existing concrete wingwall in a concrete-lined segment of the Cypress Channel.

Excess Fill Dirt Site No. 1 is located at the southwest corner of Pine Avenue and Johnson Avenue. Excess Fill Dirt Site No. 1 is comprised of the following six APNs: 1056-392-02, -04, -05, -06, -11, and -12.

Excess Fill Dirt Site No. 2 is located at the southeast corner of Pine Avenue and Johnson Avenue. Excess Fill Dirt Site No. 2 is comprised of the following two APNs: 1057-191-01 and -02.

Excess Fill Dirt Site No. 3 is located at the southwest corner of Chino Corona Road and Cucamonga Avenue. Excess Fill Dirt Site No. 3 is comprised of the following four APNs: 1057-201-05, -06, -07, and -08.

Excess Fill Dirt Site No. 4 is located at the southeast corner of Chino Corona Road and Comet Avenue. Excess Fill Dirt Site No. 4 is comprised of one APN: 1057-212-10.

Excess Fill Dirt Site No. 5 is located south of Hereford Drive and west of Hellman Avenue. Excess Fill Dirt Site No. 5 is comprised of one APN: 1057-181-24.

The locations of the excess fill dirt sites are illustrated on Figure 3-14, *Excess Fill Dirt Sites Location Map*.

2.3 SURROUNDING LAND USES

Existing land uses in the immediate vicinity of the Project Site are illustrated on Figure 2-1, *Existing Land Uses Surrounding the Project Site*. These land uses are described below.

- North: Bickmore Avenue abuts the Project Site on the north. North of Bickmore Avenue are numerous large warehouse buildings. Immediately northwest of the Project Site and west of Mountain Avenue is a wastewater (sewer) treatment plant, the Inland Empire Utility Agency's Regional Water Recycling Plant No. 5 (RP-5) Solids Handling Facility (SHF).

- South: Immediately south of the Project Site is the Butterfield Stage Course (part of the 36-hole El Prado Golf Course facility that is part of Prado Regional Park).

- West: Mountain Avenue abuts the Project Site on the west. To the west of Mountain Avenue is the Butterfield Stage Course (part of the 36-hole El Prado Golf Course facility) and the Inland Empire Utility Agency's Regional Water Recycling Plant No. 2 (RP-2).

- East: Immediately east of the northern portion of the Project Site is the Cypress Channel (abutting the northern portion of the Site) and immediately east of the southern portion of the Project Site is a stormwater detention basin. Farther east, and beyond the Cypress Channel, are numerous large warehouse buildings.

Existing land uses in the immediate vicinities of the five excess fill dirt sites are illustrated on Figure 2-2, *Existing Land Uses Surrounding Excess Fill Dirt Sites Nos. 1-5*.

Existing land uses in the immediate vicinity of Excess Fill Dirt Site No. 1 are described below.

- North: Pine Avenue abuts Excess Fill Dirt Site No. 1 on the north. North of Pine Avenue is vacant land and truck yards.

- South: Immediately south and southeast of Excess Fill Dirt Site No. 1 is Prado Regional Park and the Prado Park Equestrian Center, a facility used for horse training, riding, shows, and other equestrian uses. Farther south is the Prado Reservoir.

- West: Euclid Avenue abuts Excess Fill Dirt Site No. 1 on the west. West of Euclid Avenue consists of vacant, undeveloped land, El Prado Golf Course, and associated structures.

- East: Johnson Avenue abuts Excess Fill Dirt Site No. 1 on the east. East of Johnson Avenue is Excess Fill Dirt Site No. 2, which consists of vacant, undeveloped land.



Source(s): ESRI, SBCTA (2019)

0 175 350 700 Feet

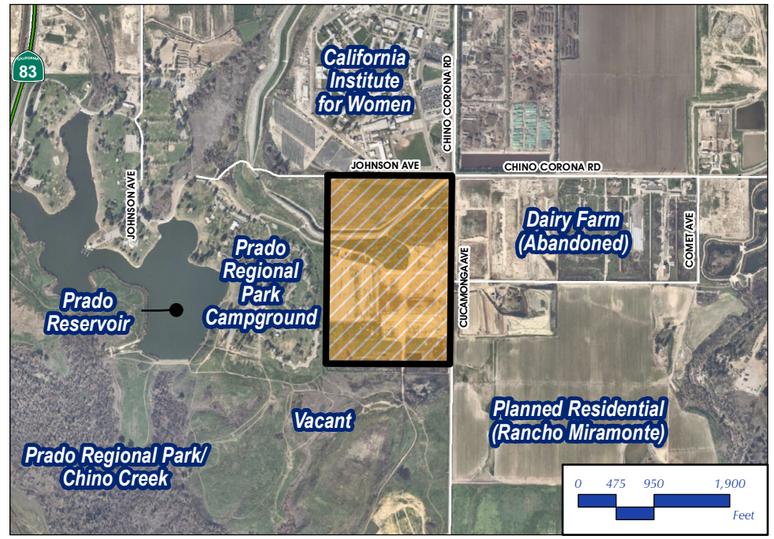
Figure 2-1
EXISTING LAND USES SURROUNDING THE PROJECT SITE



EXCESS FILL DIRT SITE #1



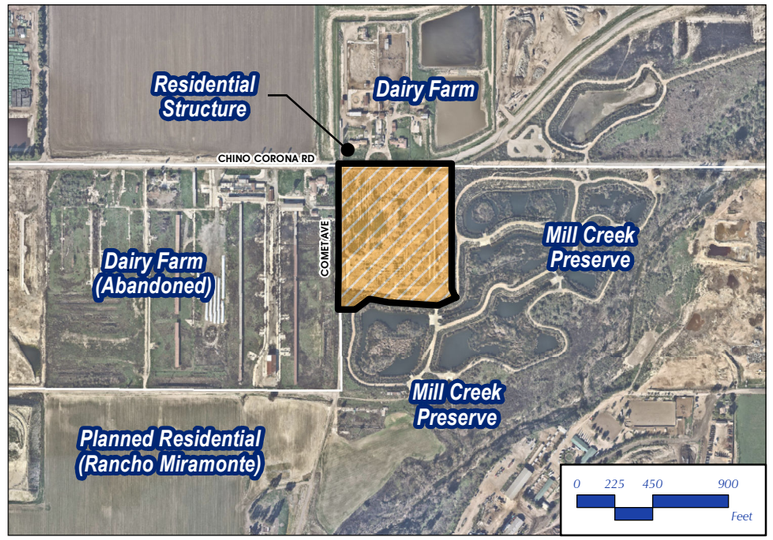
EXCESS FILL DIRT SITE #2



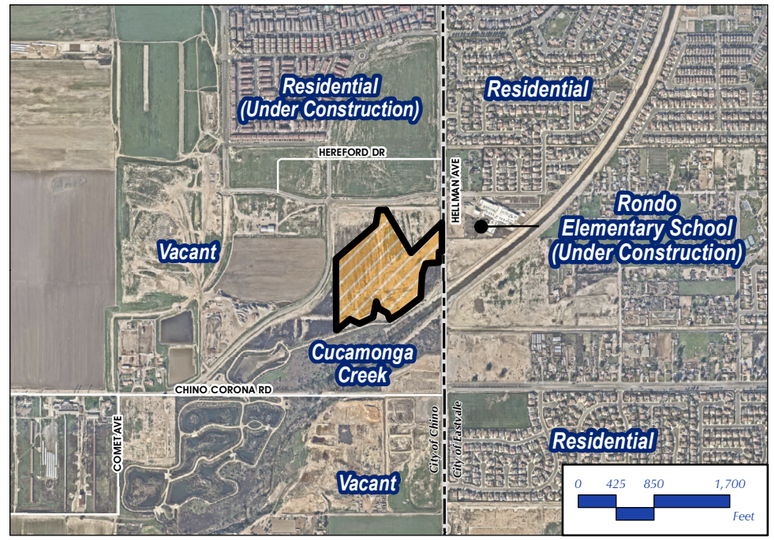
EXCESS FILL DIRT SITE #3

LEGEND

Excess Fill Dirt Site



EXCESS FILL DIRT SITE #4



EXCESS FILL DIRT SITE #5

Source(s): ESRI, Nearmap Aerial (2019)

Figure 2-2

EXISTING LAND USES SURROUNDING EXCESS FILL DIRT SITES NOS. 1-5

Existing land uses in the immediate vicinity of Excess Fill Dirt Site No. 2 are described below.

- North: Pine Avenue abuts Excess Fill Dirt Site No. 2 on the north. North of Pine Avenue is a dairy farm operation and associated structures.

- South: Immediately south and southeast of Excess Fill Dirt Site No. 2 is the Prado Regional Park and Prado Park Equestrian Center, a facility used for horse training, riding, shows, and other equestrian uses. Farther south is the Prado Reservoir, which is formed by the Prado Dam on the Santa Ana River.

- West: Johnson Avenue abuts Excess Fill Dirt Site No. 2 on the west. West of Johnson Avenue is Excess fill Dirt Site No. 1, which primarily consists vacant, undeveloped land with a few residential structures in the northeast corner which are slated for removal.

- East: Immediately east of Excess Fill Dirt Site No. 2 is vacant, undeveloped land that is used for agriculture, east of which is a California Department of Corrections and Rehabilitation facility, the California Institute for Women.

Existing land uses in the immediate vicinity of Excess Fill Dirt Site No. 3 are described below.

- North: Immediately north of Excess Fill Dirt Site No. 3 is a California Department of Corrections and Rehabilitation facility, the California Institute for Women.

- South: Immediately south of Excess Fill Dirt Site No. 3 is vacant, undeveloped land part of Prado Regional Park and Chino Creek.

- West: Immediately west of Excess Fill Dirt Site No. 3 is a campground facility within Prado Regional Park. Farther west is Prado Reservoir.

- East: Cucamonga Avenue abuts Excess Fill Dirt Site No. 3 on the east. Farther east is an abandoned dairy farm and parcels used for agriculture planned for a future residential community (Rancho Miramonte by Trumark Homes).

Existing land uses in the immediate vicinity of Excess Fill Dirt Site No. 4 are described below.

- North: Chino Corona Road abuts Excess Fill Dirt Site No. 4 on the north. North of Chino Corona Road is a residential structure and a legacy dairy farm operation with associated structures.

- South and East: Immediately south and east of Excess Fill Dirt Site No. 4 is the Mill Creek Preserve, which contains a man-made wetlands area designed to restore native ecosystems to treat water runoff in its watershed.

- West: Comet Avenue abuts Excess Fill Dirt Site No. 4 on the east. West of Comet Avenue is an abandoned dairy farm planned for a future residential community (Rancho Miramonte by Trumark Homes).

Existing land uses in the immediate vicinity of Excess Fill Dirt Site No. 5 are described below.

- North: Newly constructed Legacy Park Street abuts Excess Fill Dirt Site No. 5 on the north and north of which are single-family homes under construction as part of the City of Chino's "The Preserve" Specific Plan.

- South: Immediately south of Excess Fill Dirt Site No. 5 is Cucamonga Creek and vacant land. Further south is Chino Corona Road.

- West: Immediately west of Excess Fill Dirt Site No. 5 is vacant land and Chino Corona Road and farther west is land planned for residential development by the City of Chino's "The Preserve" Specific Plan.

- East: Hellman Avenue abuts Excess Fill Dirt Site No. 5 on the east, which is the dividing line between the City of Chino and the City of Eastvale. Farther east are residential homes and the future Rondo Elementary School in the Corona Norco Unified School District, which is under construction and scheduled to open in mid-2020.

2.4 Existing Physical Site Conditions

CEQA Guidelines § 15125(a)(1), recommends that the physical environmental condition that exists at the time an EIR's NOP is released for public review be used as the comparative baseline for the EIR analysis. The NOP for this EIR was released for public review on March 23, 2019, and the following pages include a description of the physical environmental condition ("existing conditions") of the Project Site, off-site improvement areas, and excess fill dirt sites as of that approximate date. More information regarding the environmental setting is provided in the specific subsections of EIR Section 4.0, *Environmental Analysis*.

2.4.1 Land Use

The Project Site is currently undeveloped and owned by the Orange County Flood Control District, but was previously used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. Dairy operations on the Project site ceased between 2013 and 2014; all structures associated with the former dairy operations have since been demolished. Remnants of the former dairy activities (e.g., concrete pads/foundations) are still present on portions of the Project site. The northeast corner of the site contains several water detention basins that are three to five feet deep and a pond that is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep containing vegetation and trash. Several berms are constructed across the site and within the northeast corner of the Site that are approximately three to six feet high, and some of the berms are fitted with concrete spillways.

The Project Site is located upstream of the Prado Dam, and under existing conditions, mostly all of the Project Site lies within the Reservoir Area of the Prado Dam (i.e., areas at or below 566 feet AMSL), meaning the Project Site would need to be raised in order to be developed so that the proposed building footprints are above 566 feet AMSL.

The five excess fill dirt sites also are owned by the Orange County Flood Control District, and also are located in the Reservoir Area of the Prado Dam. Excess Fill Dirt Site No. 1 is primarily vacant except for overhead power lines on metal support structures that cross the property and a few residential structures in the northeast corner of the property which are slated for removal. The overhead power lines also extend across Excess Fill Dirt Site No. 2. Otherwise, Excess Fill Dirt Sites 2 through 5 are primarily vacant except for detention basins and small berms that appear to have been formed by pushing soils into piles.

The Project's off-site storm drain improvement area is vacant, with the easterly outlet into a concrete headwall at the terminus of the concrete-lined Cypress Channel.

2.4.2 Aesthetics and Topographic Features

The Project Site slopes gradually from north to south and is visually perceived to be mostly flat with elevations ranging from approximately 565 feet AMSL in the northwestern portion of the Site to approximately 554 feet AMSL in the southeastern portion of the Site. There are isolated highpoints in the northwestern and northcentral portions of the Project Site that are approximately 567 AMSL. Several berms are constructed across the site and within the northeast corner of the Site that are approximately three to six feet high, and some of the berms are fitted with concrete spillways. The northeast corner of the site contains several water detention basins that are three to five feet deep and a 12 to 20 feet deep pond measuring approximately 80 to 100 feet wide and 200 feet long containing vegetation and trash. There are no rock outcroppings or other unique topographic or aesthetic features present on the property. Along the east property line, within the southeast portion of the site, there is a slope descending about 10 to 13 feet to an off-site flood basin area. Figure 3-3, *USGS Topographic Map*, in EIR Section 3.0, *Project Description*, depicts the Project Site's existing topographic conditions.

Excess Fill Dirt Site No. 1 slopes from north to south with a creek/drainage channel that flows southerly through approximate center of the property and divides the property in two parts. On the west side of the creek, the ground surface generally slopes moderately toward the creek except for the area immediately adjacent to the creek which is relatively level. There is also relatively level ground immediately adjacent to Euclid Avenue to the west. On the east side of the creek, the highest area is located in the northeast corner portion of the property where there is relatively flat ground. Overall elevations range from approximately 544 feet AMSL in the northern portion of the site to approximately 530 feet AMSL in the southeastern portion of the site. Overhead power lines spanning between metal support structures are visually prominent and cross the property in an east/west direction.

Excess Fill Dirt Site No. 2 slopes gradually from north to south and is visually perceived to be flat with elevations generally ranging from approximately 558 feet AMSL in the northeast corner of the site to approximately 545 feet AMSL in the southwest corner of the site. A few berms ranging from three to five feet high are present and appear to have been formed by pushing soils into piles. Overhead power lines spanning between metal support structures are visually prominent and cross the property in an east/west direction.

Excess Fill Dirt Site No. 3 slopes gradually from north to south and is visually perceived to be gently sloping, with elevations ranging between approximately 566 feet AMSL in the northeast corner of the site to approximately 545 feet AMSL in the south end of the site. The southern portion of the property contains several

water storage ponds that range in depth mostly about three to seven feet. Power lines spanning between support structures cross the property about 100 feet north of West County Road.

Excess Fill Dirt Site No. 4 slopes gradually from north to south ranging from approximately 563 feet AMSL in the northern portion of the site to approximately 555 feet AMSL in the southern portion of the site and is visually perceived to be flat except for the south end of the site that has an approximately 10-foot high slope dipping downward toward the Mill Creek Preserve, which contains a man-made wetlands area off site to the south.

Excess Fill Dirt Site No. 5 slopes gradually from north to south and is visually perceived to be gently sloping with elevations ranging from approximately 555 feet AMSL in the north to approximately 545 feet AMSL in the south. Several small berms one to two feet in height appear to have been constructed on the property by pushing soils into piles. Overhead powerlines trend north-south, west of Hellman Ave and roughly 60 feet into the property. The south side of the property contains a four- to six-foot-deep water detention basin; the basin has an entry ramp in the northeast corner. Along the east property line, within the southeast portion of the site, there is a gentle slope descending about 8 to 11 feet to the Cucamonga Creek.

There are no rock outcroppings or other unique topographic or aesthetic features present on any of the excess fill dirt sites.

2.4.3 Air Quality and Climate

The Project Site, its off-site improvement area, and Excess Fill Dirt Sites Nos. 1 through 5 are located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the south. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. Although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year.

At the regional level, air quality in the SCAB has improved over the past several decades; notwithstanding, the SCAB does not attain State and/or federal standards established for ozone (O_3; one-hour and eight-hour), particulate matter (PM_{10} (State standard only) and $PM_{2.5}$), and lead (only in Los Angeles County). The SCAB is frequently smoggy, with smog primarily driven by particulate matter (PM) and ozone. As such, the SCAB experiences air pollution levels that pose risks to human health. No areas of the SCAB exceed federal or State standards for nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), or sulfates. (Urban Crossroads, 2019a, Table 2-2).

Refer to EIR Subsections 4.2, *Air Quality*, and 4.7, *Greenhouse Gas Emissions*, for a more detailed discussion of the existing air quality and climate setting in the Project area.

2.4.4 Cultural Resources & Tribal Cultural Resources

The Project Site, off-site improvement areas, and excess fill dirt sites are located in an area that is culturally affiliated with the Gabrieleno Band of Mission Indians - Kizh Nation. However, no significant Native American resources or Tribal Cultural Resources are known to exist on these properties under existing conditions. In addition, no known significant historic resources are present.

Brian F. Smith & Associates (BFSA) conducted archeological and historic resource field surveys of the subject properties in 2019, and the results were negative for significant resources. No physical evidence of significant historic or archaeological resources were identified on any of the properties. Archaeological record searches also were conducted, from the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton, which revealed that no prehistoric artifacts had been recorded previously on the Project Site or Excess Fill Dirt Sites Nos. 2, 3, and 5 (BFSA, 2019a, pp. 1.0-2, 5.0-61, 5.0-65, and 5.0-97). One (1) prehistoric resource was previously recorded on Excess Fill Dirt Site No. 1 and one (1) prehistoric resource was previously recorded on Excess Fill Dirt Site No. 4. Both resources were recorded as lithic scatter; however, no physical evidence of the prehistoric sources was identified by BFSA during the 2019 archaeological pedestrian survey. (BFSA, 2019a, pp. 5.0-32, 5.0-34, and 5.0-82) The potential exists for historic and prehistoric resources to be located below the ground surface on portions of the properties, albeit there is an absence of surface evidence of significant resources.

2.4.5 Geology

Regionally, the Project Site, off-site improvement areas, and Excess Fill Dirt Sites Nos. 1 through 5 are located in the Peninsular Ranges geomorphic province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Ranges province is composed of plutonic and metamorphic rock, lesser amounts of Tertiary Volcanic and sedimentary rock, and Quaternary drainage in-fills and sedimentary veneers. (CDC, 2010)

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. Similar to other properties throughout southern California, the subject properties are located within a seismically active region and are subject to ground shaking during seismic events; however, no known active faults exist on or near the Project Site, off-site improvement areas, or Excess Fill Dirt Sites Nos. 1 through 5 nor are the sites situated within an "Alquist-Priolo" Earthquake Fault Zone. A segment of the Chino Avenue Fault traverses the southwest portion of the Project Site; however, this fault has not moved in the previous 11,000 years and is presumed to be inactive. (Koury, 2019a, p. 11) There are no active or potentially active faults occurring on Excess Fill Dirt Sites Nos. 1 through 5 and no known faults are mapped trending through or toward any of these sites (Chino, 2010b, Figure 4.6-1)

The Project Site is underlain by artificial fill soils and native, alluvium soils. Fill soils are found on the Project Site at depths ranging approximately 1 to 3 feet below ground surface. The observed fill soils consist

predominately of medium plastic clay (lean clay with sand and sandy lean clay). A large portion of the Site contains a layer of younger alluvium underneath the fill and above the older alluvium. The younger alluvium is generally found 2 to 6 feet below the ground surface and consists predominantly of lean clay with sand with localized areas of fat clay. The older alluvium was encountered at depths between approximately 3.5 and 6 feet below the ground surface and mainly consists of clay (both fat and lean clay). (Koury, 2019a, p. 5)

Excess Fill Dirt Site No. 1 generally consists of artificial fill underlain by alluvial deposits. The artificial fill is approximately 1 to 3 feet thick except for the berms/levees that were constructed, which range in height between approximately 3 and 5 feet. The artificial fill predominantly consists of medium plastic clay (lean clay with sand and sandy lean clay). (Koury, 2017a, p. 5)

Excess Fill Dirt Site No. 2 consists of artificial fill underlain by alluvial deposits. The artificial fill is encountered at depths up to approximately 15 feet and predominantly consists of various mixtures of clay, which includes lean and fat clay with variable sand contents. (Koury, 2017b, p. 5)

Excess Fill Dirt Site No. 3 consists of artificial fill underlain by alluvial deposits. The artificial fill was encountered at depths approximately less than 1 foot to 6 feet and consist of lean clay with sand, sandy lean clay, and thin layers of clayey sand and silty sand at or near the surface with localized areas of fat clay. Organic material (i.e., manure) also was encountered near the southwest corner of the site. The alluvium soils beneath the artificial fill consist predominantly of stiff to very stiff, medium to high plastic sandy clay, lean clay with sand, fat clay and sandy silt. Some clayey sand and silty sand were encountered below a depth of approximately 12 feet. (Koury, 2018a, pp. 2-3)

Excess Fill Dirt Site No. 4 consists of artificial fill underlain by alluvial deposits. The artificial fill was encountered at a depth of approximately 6 feet and consists predominantly of lean clay with sand and sandy lean clay. The alluvium soils beneath the artificial soil consists predominantly of stiff to very stiff medium plastic to high plastic sandy clay and clay with sand. Some discrete layers of silty sand, clayey sand, and poorly graded sand with silt were encountered at depths between approximately 9 to 17.5 feet. (Koury, 2018b, p. 2)

Excess Fill Dirt Site No. 5 consists of artificial fill underlain by alluvial deposits. The artificial fill was encountered at depths between approximately 1 to 3 feet and consists predominantly of lean clay with sand and sandy lean clay, and includes fat clay, clayey sand, silty sand, and construction debris. The alluvium soils beneath the artificial soil consists predominantly of stiff to very stiff medium plastic to high plastic sandy clay and clay with sand. Some discrete layers of silty sand, clayey sand, and poorly graded sand with silt were encountered at depths between approximately 12.5 to 17 feet. (Koury, 2019b, p. 3)

2.4.6 Hydrology

The Project Site, off-site improvement areas, and Excess Fill Dirt Sites Nos. 1 through 5 are located in the Santa Ana River watershed, which drains an approximately 2,650-square-mile area and is the principal surface flow water body within the region. The Santa Ana River starts in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The Project Site, off-site improvement

areas, and Excess Fill Dirt Sites Nos. 1 through 5 are within the purview of the Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region. (Santa Ana RWQCB, 2016, p. 1-1)

Most of the Project Site and the entirety of Excess Fill Dirt Sites Nos. 1 through 5 lie upstream and within the Reservoir Area of the Prado Dam (i.e., areas at or below 566 feet AMSL) (Chino, 2010a, Figure SAF-3). The Prado Dam is located approximately 4.6 miles southeast of the Project Site; approximately 4.1 miles south of Excess Fill Dirt Sites Nos. 1 and 2; approximately 3.4 miles south of Excess Fill Dirt Site No. 3; approximately 3.8 miles southwest of Excess Fill Dirt Site No. 4; and approximately 4.3 miles southwest of Excess Fill Dirt Site No. 5.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. FIRM No. 06071C9335H, dated August 28, 2008, the majority of the Project Site is located within FEMA Flood Zone D and a very small sliver of the southwest corner of the Project Site is located within FEMA Flood Zone AE. Flood Zone D is correlated with areas where "flood hazards are undetermined, but possible" and Flood Zone AE areas are within a 100-year floodplain. (FEMA, 2008)

According to FEMA FIRM No. 06071C9335H, dated August 28, 2008, Excess Fill Dirt Site Nos. 1 and 3 are located within FEMA Flood Zones D and AE. The entire Excess Fill Dirt Site No. 2 is located within FEMA Flood Zone D. According to FEMA FIRM No. 06071C9375H, dated August 28, 2008, Excess Fill Dirt Site No. 4 is located within FEMA Flood Zones D and AE, and Excess Fill Dirt Site No. 5 is located within Zones X and AE. Zone X is correlated with areas that have a 0.2% annual chance flood hazard. (FEMA, 2008)

There are several berms and water detention ponds on each of the excess fill dirt sites. Under existing conditions, stormwater flows across the Project Site generally from the northern portion of the Site to its southeast corner. Excess Fill Dirt Site No. 1 slopes from north to south with a creek/drainage channel that flows southerly through approximate center. Stormwater flows across Excess Fill Dirt Sites No. 2 as surface sheet flow, generally from the northern portion of the site to its southwest corner. Stormwater flows across Excess Fill Dirt Sites Nos. 3 and 4 as surface sheet flow, generally from the northern portion of the sites to the southern portion of the sites. Stormwater flows across Excess Fill Dirt Site No. 5 generally from the northern portion of the property to its southeast corner. (PBLA, 2019a)

Refer to EIR Subsection 4.9, *Hydrology and Water Quality*, for a more detailed discussion of the existing hydrology characteristics within the Project area.

2.4.7 Noise

Primary sources of noise in the Project Site's vicinity include traffic noise from vehicles traveling along abutting roadways. Urban Crossroads collected 24-hour noise measurements at 11 locations in the vicinity of the Project Site and excess fill dirt sites in April 2019, to determine the baseline for the existing noise environment. Measured daytime noise levels in the area ranged from 53.8 equivalent level decibels (dBA Leq) to 75.4 dBA Leq and nighttime noise levels from 48.3 dBA Leq to 72.6 dBA Leq. The measured noise levels

correlate to a Community Noise Equivalent Level (CNEL) ranging from 56.3 CNEL to 79.7 CNEL. (Urban Crossroads, 2019e, pp. 31, 34)

Refer to EIR Subsection 4.11, *Noise*, for a more detailed discussion of the existing noise environment within the Project area.

2.4.8 Transportation

Existing traffic on nearby roadways consist of both passenger vehicles and trucks passing through the area and accessing nearby land uses. State designated truck routes near the subject properties include SR-71 and Euclid Avenue. City of Chino designated truck routes in the vicinity of the subject properties include Pine Avenue, El Prado Road, Kimball Avenue, Hellman Avenue, Mountain Avenue, Bickmore Avenue (between Euclid and Mountain Avenues), and Cypress, San Antonio and Fern Avenues (between Bickmore and Kimball Avenues north of the Project Site).

Field observations suggest that there is nominal pedestrian and bicycle activity in the area. Public transit service in the region is provided by Omnitrans. There are no existing Omnitrans routes that operate near or within the vicinity of the Project Site. The nearest Omnitrans route to the Project Site is Route 365, which provides service along Central Avenue approximately 1.4 miles northwest of the Project Site. (Urban Crossroads, 2019f, pp. 62-63; Google Earth Pro, 2019)

The primary regional vehicular travel routes in the vicinity of the Project Site are SR-71 and SR-60. The Project Site is located approximately 2.4 roadway miles southeast of the Central Avenue on/off-ramp to SR-71 and approximately 5.5 roadway miles southwest of the Euclid Avenue on/off-ramp to SR-60.

Refer to EIR Subsection 4.12, *Transportation*, for a more detailed discussion of the existing transportation setting and traffic volumes within the Project area.

2.4.9 Utilities and Service Systems

Water and sewer conveyance services are provided to the Project Site by the City of Chino. Under existing conditions, water lines are installed beneath Bickmore Avenue and Mountain Avenue, and a sewer line is installed beneath Mountain Avenue. In the Project area, the City of Chino conveys wastewater flows to the Inland Empire Utility Agency (IEUA) for treatment at Regional Water Recycling Plant No. 5 (RP-5), which is located northwest of the Project Site. Solid waste from the Project Site is expected to be disposed at the El Sobrante Landfill.

2.4.10 Vegetation Communities

Due to longstanding disturbances on the Project Site associated with prior dairy farming and cattle slaughter activities, the site does not contain any natural vegetation communities. The entire Project Site is composed of ruderal, disturbed, and developed habitats. (GLA, 2019, pp. 21-22) The Project Site does not contain special-status vegetation and does not support sensitive vegetation communities. (GLA, 2019, p. 27)

Excess Fill Dirt Site No. 1 is comprised mainly of ruderal/disturbed habitat. However, approximately 4.62 acres of Excess Fill Dirt Site No. 1 contains two special-status vegetation communities: freshwater marsh/disturbed freshwater marsh and southern willow scrub in the area of a drainage that would be preserved in place. The entirety of Excess Fill Dirt Sites Nos. 2 through 5 are composed of ruderal, disturbed, and developed habitats. Excess Fill Dirt Sites Nos. 2 through 5 do not contain special-status vegetation and do not support sensitive vegetation communities. (GLA, 2019, pp. 25-26)

Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of the existing biological setting within the Project area.

2.4.11 Wildlife

One special-status wildlife species, the burrowing owl (*Athene cunicularia*), was detected on the Project Site during a focused survey conducted during the 2019 survey season. No other special-status wildlife species were observed on the Project Site. (GLA, 2019, p. 8) During the field survey, 32 additional, non-special status wildlife species were observed on the Project Site, primarily consisting of numerous avian (bird) species, as well as a few small mammal, reptile, and amphibian species, and an invertebrate species (GLA, 2019, p. 26).

One special-status wildlife species, the Least Bell's Vireo (*Vireo bellii pusillus*), was detected within Excess Fill Dirt Site No. 1 and within the nearby off-site vicinity of Excess Fill Dirt Sites Nos. 2 and 5. The off-site storm drain improvement area and portions of Excess Fill Dirt Site Nos. 1, 3, and 5 are within mapped designated U.S. Fish and Wildlife Service (USFWS) Critical Habitat for the least Bell's vireo, a State and federal endangered songbird. Another special-status wildlife species, the tri-colored blackbird (*Agelaius tricolor*), was detected on Excess Fill Dirt Site No. 4. During the field survey, 35 additional, non-special-status wildlife species were observed on Excess Fill Dirt Sites Nos. 1 and 2; 17 additional, non-special-status wildlife species were observed on Excess Fill Dirt Site No. 3; and 31 additional, non-special-status wildlife species were observed on Excess Fill Dirt Sites Nos. 4 and 5, primarily consisting of numerous avian species, as well as a few small mammal, reptile, and amphibian species, and an invertebrate species. (GLA, 2019, pp. 29-30)

The complete list of wildlife species observed on the Project Site and Excess Fill Dirt Sites Nos. 1 through 5 are documented in EIR *Technical Appendix C1*. Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of the existing biological setting within the Project area.

2.4.12 Rare and Unique Resources

As required by CEQA Guidelines § 15125(c), the environmental setting should place special emphasis on resources that are rare or unique to that region and would be affected by the Project. Based on the existing conditions of the Project Site, Excess Fill Dirt Sites Nos. 1 through 5, and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project Site and Excess Fill Dirt Sites Nos. 2 and 4 do not contain any resources that are rare or unique to the region. The Project's off-site storm drain improvement area and portions of Excess Fill Dirt Site Nos. 1, 3, and 5 are within mapped designated U.S. Fish and Wildlife Service (USFWS) Critical Habitat for the least Bell's vireo, a State and federal endangered songbird.

2.5 PLANNING CONTEXT

2.5.1 CITY OF CHINO GENERAL PLAN

The City of Chino's prevailing planning document is its General Plan, dated July 2010. As depicted on Figure 2-3, *Existing General Plan Land Use Designations*, the City's General Plan Map designates the Project Site for "Agriculture" (AG) and "Recreation/Open Space" (R/OS) land uses. The "AG" land use designation accommodates uses such as farming, pastures, grazing, and stables. The "R/OS" land use designation establishes open space areas for active and passive recreation. (Chino, 2010a, LU-19)

Pursuant to CEQA Guidelines § 15125(d), the environmental setting of an EIR should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans. The Project Applicant proposes to develop the approximately 97-acre Project Site with two industrial buildings. As noted in Section 3.0, *Project Description*, the Project Applicant proposes to change the land use designations applied to the Project Site from "AG" and "R/OS" to "General Industrial;" as such, the Project is not consistent with the existing General Plan land use designations of AG and R/OS.

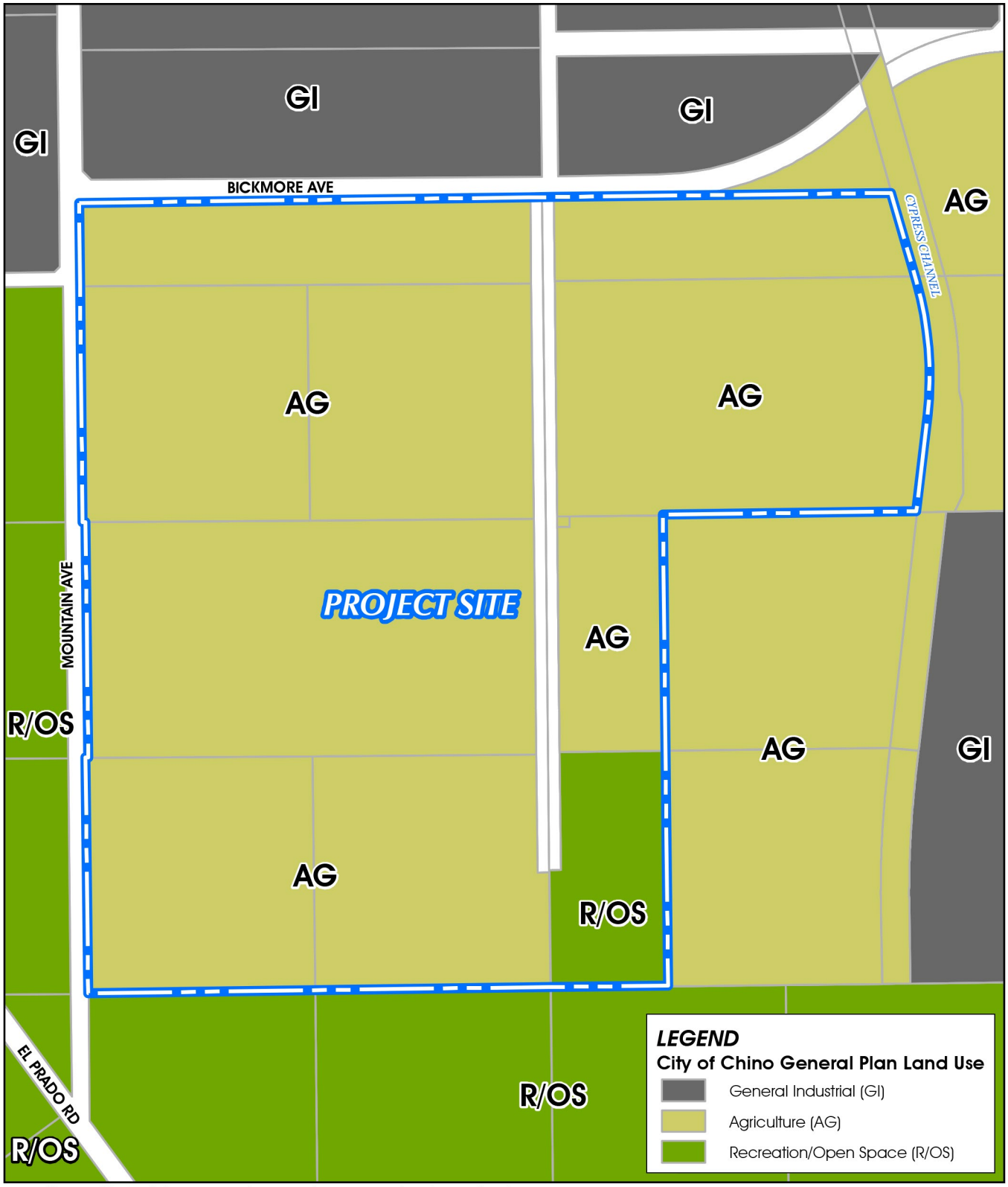
According to the City's General Plan Map, Excess Fill Dirt Site No. 1 is designated as "R/OS;" Excess Fill Dirt Site No. 2 is designated as "R/OS" and "Estate Residential (ER);" Excess Fill Dirt Site Nos. 3 and 4 are designated as "R/OS" and "AG;" and Excess Fill Dirt Site No. 5 is designated as "ER," "R/OS," and "AG." There is no proposed change to the existing General Plan designations for the excess fill dirt sites or the off-site improvement areas.

2.5.2 ZONING

As shown on Figure 2-4, *Existing Zoning Designations*, the City of Chino Zoning Map applies the "General Agriculture" (AG) and "Open Space-Natural" (OS-2) zoning classifications to the Project Site. According to the City of Chino Municipal Code, the "AG" zoning district is intended to provide areas for livestock ranges, crop cultivation, agriculture related residences and structures, parks and recreational areas and agricultural offices. The "OS-2" zoning district is intended to feature minimal or no development and to serve as visual buffers, natural open and wildlife corridors and water recharge and detentions/retention areas. The OS-2 district may contain hiking and biking trails and other landscaped areas. (Chino, 2019) As noted in Section 3.0, *Project Description*, the Project Applicant proposes to change the zoning designations applied to the Project Site from "AG" and "OS-2" to "General Industrial (M2);" as such, the Project is not consistent with the existing zoning designations of AG and OS-2.

The City of Chino Zoning Map also applies the "Airport Overlay District" to the Project Site. The Airport Overlay District is intended to ensure the viability of airport operations at the Chino Airport, and to protect the health, safety, and welfare of the residents of Chino. Any proposed development within the Airport Overlay District must comply with City Zoning Ordinance Section 20.09.050, *Airport Overlay District*. (Chino, 2019)

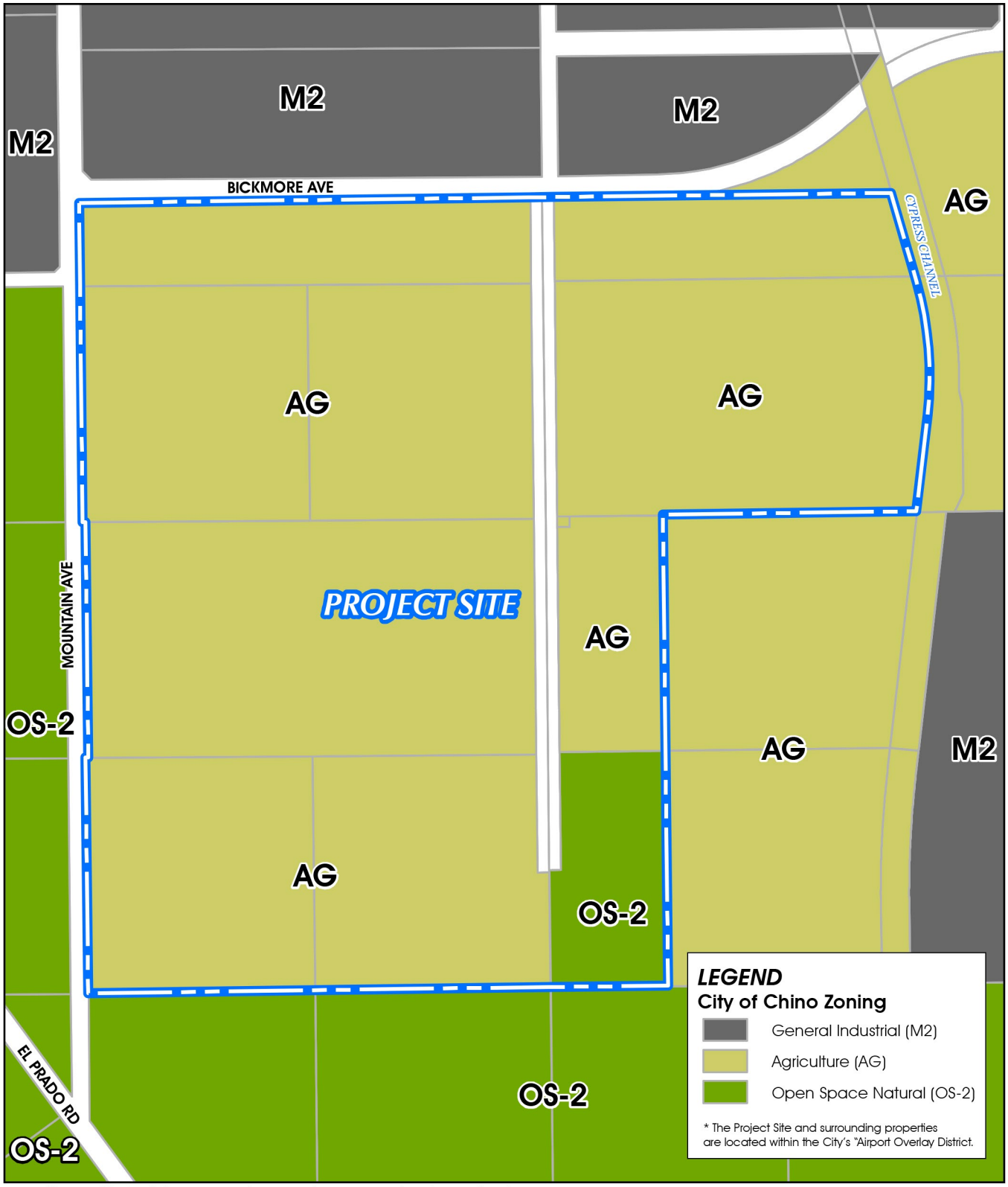
According to the City of Chino Zoning Map, the excess fill dirt sites are located within The Preserve Specific Plan with the following zoning designations: Excess Fill Dirt Site No. 1 is zoned as "Open Space Recreational (OS-R)" and "Open Space Natural (OS-N);" Excess Fill Dirt Site No. 2 is zoned as "OS-R" and "ER;" Excess



Source(s): Source(s): City of Chino GPLU Map (11-28-2017), ESRI, SANBAG (2018), SBCTA (2019)

Figure 2-3

EXISTING GENERAL PLAN LAND USE DESIGNATIONS



Source(s): Source(s): City of Chino GPLU Map (11-28-2017), ESRI, SANBAG (2018), SBCTA (2019)

Figure 2-4

EXISTING ZONING CLASSIFICATIONS

Fill Dirt Site No. 3 is zoned as "OS-R," "Agricultural and Open Space Natural (AG/OS-N)," and "OS-N;" Excess Fill Dirt Site No. 4 is zoned as "OS-R" and "AG/OS-N;" and Excess Fill Dirt Site No. 5 is zoned as "ER," "OS-R," and "AG/OS-N." There is no proposed change to the existing zoning designations for the excess fill dirt sites or the off-site improvement areas.

2.5.3 Chino Airport Land Use Compatibility Plan

The Project Site is located approximately 1.6 miles southwest of the nearest runway at the Chino Airport. At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for the Chino Airport, as the most recent ALUCP for the Chino Airport (adopted in 1991) does not reflect the Airport's current Master Plan (adopted in 2006). Regardless, based on the 1991 ALUCP, the City of Chino General Plan establishes safety zones for areas within the Chino Airport Influence Area (AIA). As shown on Figure 2-5, *Chino Airport Safety Zones*, the Project Site is located within the AIA for the Chino Airport. A majority of the Project Site is located within Airport Safety Zone II, while the portion of the Project Site immediately abutting the Mountain Avenue/Bickmore Avenue intersection is located within Airport Safety Zone III. Within Safety Zone II, the General Plan and the 1991 ALUCP strongly discourage residential land uses and recommend that non-residential uses in enclosed structures be limited to no more than 25 persons per acre. Within Safety Zone III, the General Plan and the 1991 ALUCP recommend no land use limitations/restrictions. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7 and p. 3-8)

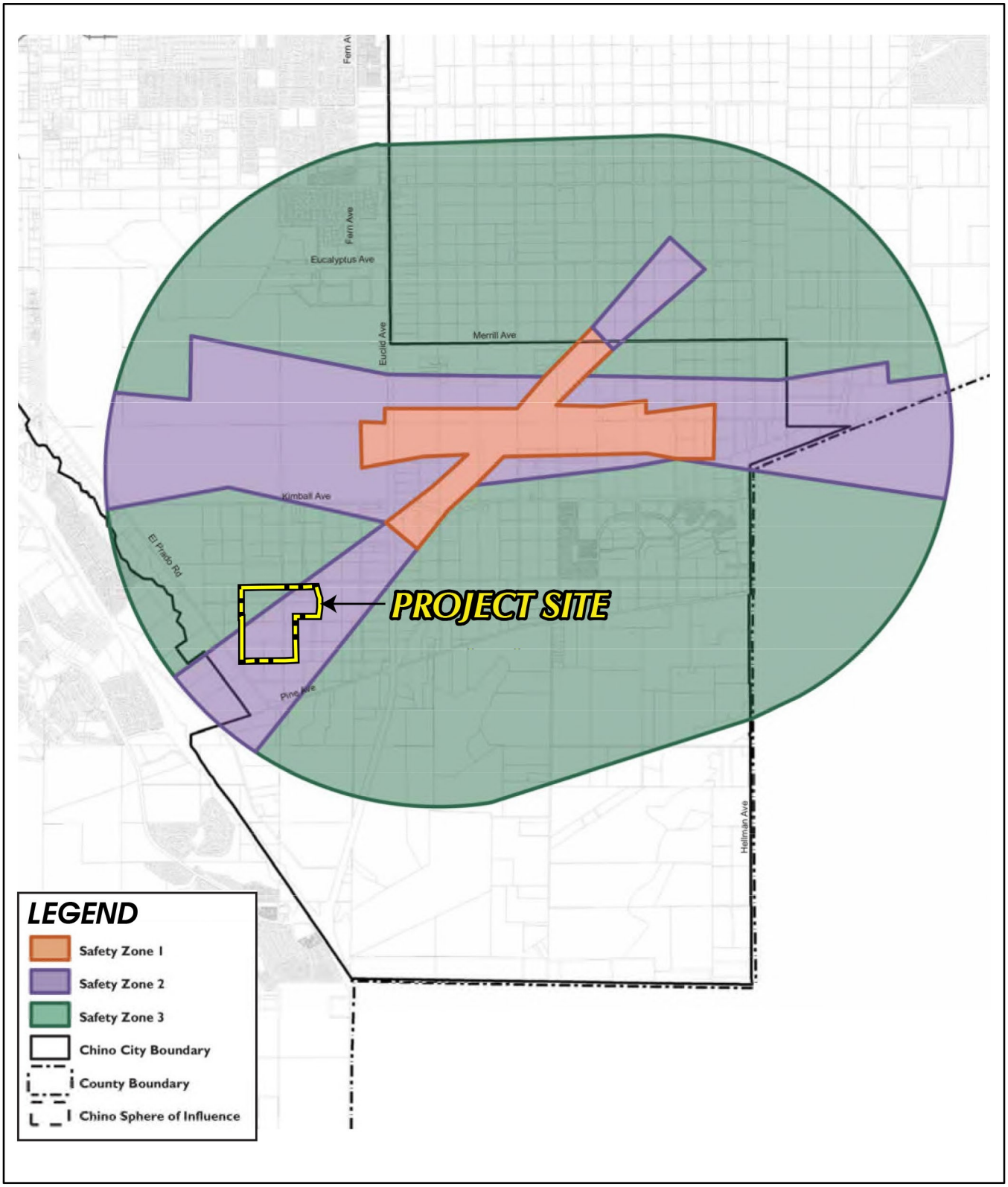
Due to the proximity of the Chino Airport to communities within Riverside County, the Riverside County Airport Land Use Commission (ALUC) adopted an ALUCP for the Chino Airport in 2008. According to the Riverside County ALUC's ALUCP for the Chino Airport, the entire Project Site is located within Compatibility Zone "D." Very tall buildings and noise sensitive land uses are prohibited within Compatibility Zone D; however, industrial land uses are generally permissible within this Compatibility Zone. (RCALUC, 2008, Map CH-1) This information is presented for informational purposes only, as the Project Site is located in San Bernardino County and the Riverside County ALUC has no jurisdictional authority over the Project Site or the proposed Project evaluated herein.

2.5.4 SCAG Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. (SCAG, 2019)

SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other

plans for the region. The *RTP/SCS* provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The Subregional Sustainable Communities Strategies identifies the Project Site as being located in an area with a "Standard Suburban" land use pattern, which is defined as auto-oriented development with a minimal mix of land uses, and assumes this land use pattern will continue until at least the year 2040. (SCAG, 2016, p. 64) The *RTP/SCS* is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. The draft *2020-2045 RTP/SCS* (also referred to as "Connect SoCal") has not yet been adopted at the time of preparing this EIR; therefore, the *2016-2040 RTP/SCS* would be the applicable adopted plan for the Project as evaluated herein.



Source(s): City of Chino General Plan (2015)

Figure 2-5

Not to Scale

CHINO AIRPORT SAFETY ZONES

3.0 PROJECT DESCRIPTION

This section provides all of the information required of an EIR Project Description by CEQA Guidelines § 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR (including a list of the government agencies that are expected to use this EIR in their decision-making processes); a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

3.1 PROJECT LOCATION

The Project Site is located in the southern portion of the City of Chino, which is located southwest of the City of Ontario, east of the City of Chino Hills, west of the City of Eastvale, and northwest of the City of Corona in the southwestern portion of San Bernardino County, California. As shown on Figure 3-1, *Regional Map*, the Project Site is (in direct linear distance) approximately 1.0 mile east of State Route 71 (SR-71), approximately 6.5 miles west of Interstate 15 (I-15), and approximately 5.0 miles south of State Route (SR-60). The Chino Airport is located approximately 1.6 miles to the northeast of the Project Site.

At the local scale, the Project Site is located at the southeast corner of the intersection of Mountain Avenue and Bickmore Avenue as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*. The Project Site includes the following 10 Assessor Parcel Numbers (APNs) 1027-241-01, -02; 1027-231-01; 1027-371-01; 1027-381-01, -02; 1056-201-01; 1056-331-01, -06; 1056-341-01. The Project's off-site storm drain improvement extends from the southwestern corner of the Project site, across APNs 105-634-101, -04, and 105-617-104, to the Cypress Channel.

The five excess fill dirt sites (from which fill material is proposed to be obtained to raise the elevation of the Project Site to facilitate its development) also are located in the City of Chino, to the south and east of the Project Site. Excess Fill Dirt Site No. 1 is located at the southwest corner of Pine Avenue and Johnson Avenue. Excess Fill Dirt Site No. 2 is located at the southeast corner of Pine Avenue and Johnson Avenue. Excess Fill Dirt Site No. 3 is located at the southwest corner of Chino Corona Road and Cucamonga Avenue. Excess Fill Dirt Site No. 4 is located at the southeast corner of Chino Corona Road and Comet Avenue. Excess Fill Dirt Site No. 5 is located at the southwest corner of Legacy Park Street and Hellman Avenue. Refer to EIR Subsection 2.2, *Local Setting and Location*, for APNs of the excess fill dirt sites.

Additional information about the location and setting of the Project Site, the Project's off-site improvement areas, and the five excess fill dirt sites, is provided in EIR Section 2.0, *Environmental Setting*.

3.2 STATEMENT OF OBJECTIVES

The fundamental purpose and goal of the Majestic Chino Heritage Project is to accomplish the orderly development of industrial buildings in the southwestern portion of the City of Chino, near designated truck routes, to increase employment opportunities in a housing rich area. This underlying purpose aligns with various aspects of the Southern California Association of Governments' (SCAG's) draft 2020-2045 Regional

Transportation Plan/Sustainable Communities Strategy (RTP/SCS) primarily related to accommodating goods movement industries and balancing job and housing opportunities in local areas to reduce long commutes from home to work. SCAG identifies the Inland Empire as a housing rich area and coastal communities as job rich areas and is striving in their policies to achieve more equal balances locally. The Project would achieve its underlying purpose and goal through the following objectives.

A. To expand economic development, facilitate job creation, and increase the tax base for the City of Chino.

B. To establish a new industrial development area adjacent to or near an already-established industrial area.

C. To attract new businesses to the City of Chino and thereby provide a more equal jobs-housing balance in the City of Chino that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To assist the SCAG region in achieving jobs/housing balance region-wide by providing additional job opportunities in a housing rich area of the Inland Empire.

E. To develop Class A speculative industrial buildings in Chino that are designed to meet contemporary industry standards and are economically competitive with similar industrial buildings in the local area and region.

F. To attract a wide variety of users including those that can expedite the delivery of essential and life-sustaining goods to consumers and businesses in Chino and beyond the City boundary.

G. To develop a project with an architectural design and operational characteristics that embrace the historical context of the Chino dairy community, complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

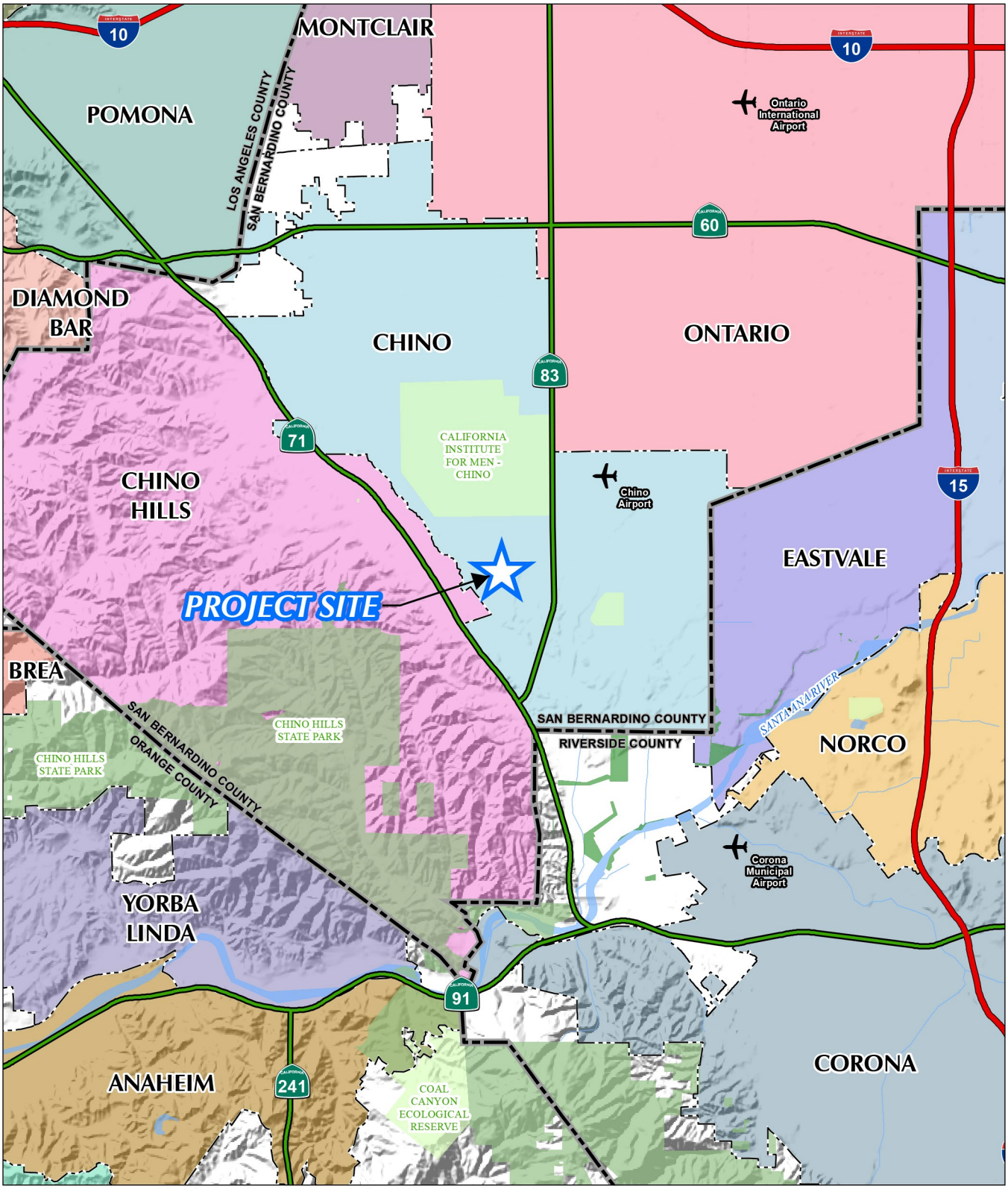
H. To develop a property that has access to available infrastructure, including roads and utilities.

I. To develop industrial buildings in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.

J. To provide a viable reuse plan for former factory/commercial dairy property so that the property can again be economically productive.

K. To develop property near the Chino Airport with economically viable land uses that are compatible with the Chino Airport's land use compatibility requirements.

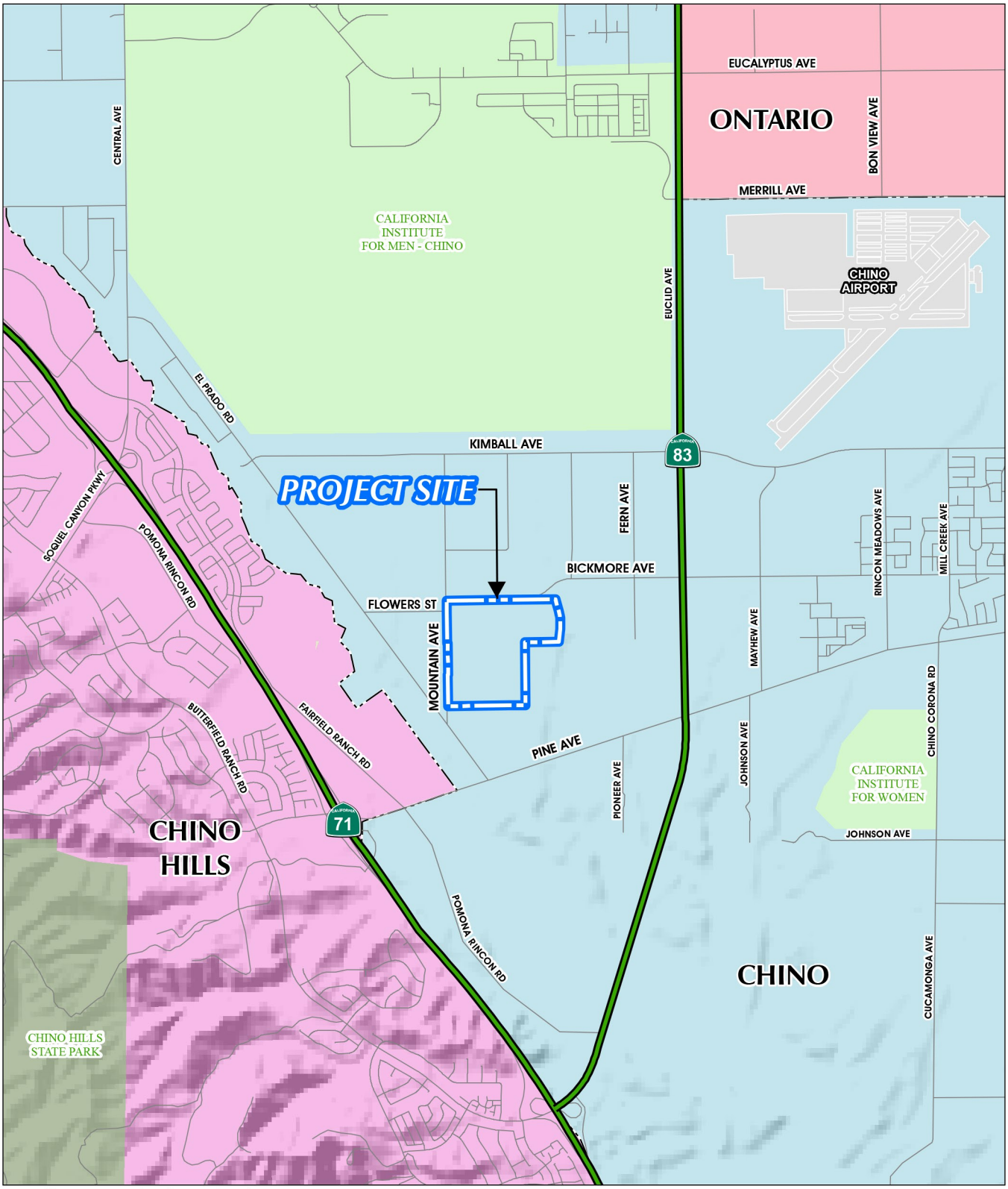
L. To raise planned building footprints out of the Prado Dam Reservoir Area while simultaneously excavating fill soils from other properties in the Prado Dam Reservoir Area, thereby having no net decrease in, and actually increasing, the flood storage capacity and thereby minimizing flood hazards.



Source(s): ESRI, LA GIS Portal (2018), OCLandBase (2018), RCTLMA (2019), SANBAG (2018), SBCTA (2019)

Figure 3-1

REGIONAL MAP

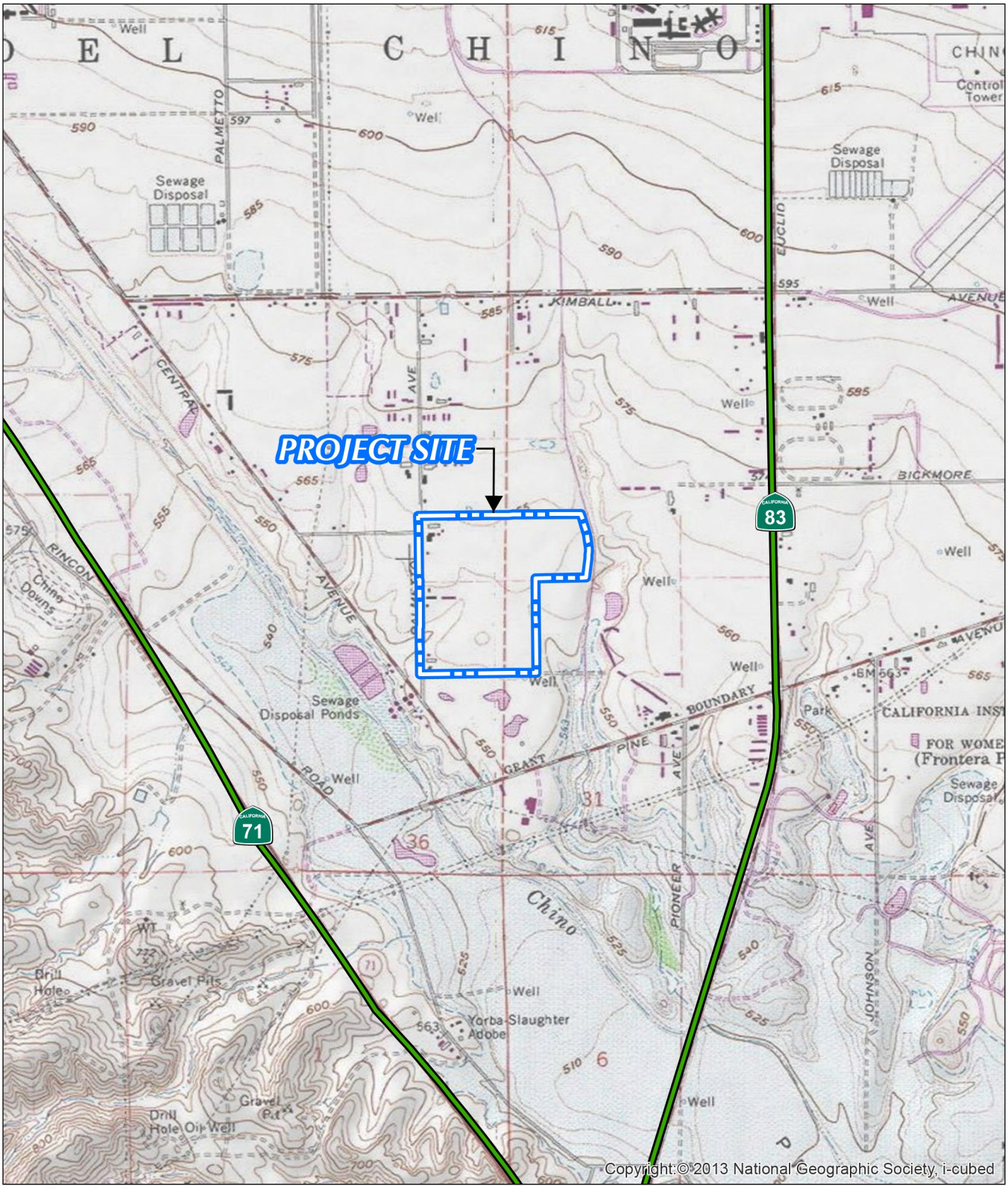


Source(s): ESRI, SANBAG (2018), SBCTA (2019)

0 750 1,500 3,000 Feet

Figure 3-2

VICINITY MAP



Source(s): USGS (2013)

0 500 1,000 2,000 Feet

Figure 3-3

USGS TOPOGRAPHIC MAP

3.3 PROJECT'S COMPONENT PARTS

The Project evaluated in this EIR includes proposed legislative and site development actions by the City of Chino. The legislative actions entail a proposed General Plan Amendment (PL18-0090) and Zone Change (PL18-0091). The general intent of the proposed legislative actions is to change the land use designation for the Project Site from an agricultural/open space category to an industrial category. The site development actions entail two proposed Site Approvals (PL18-0118 & PL18-0120), a Vesting Tentative Parcel Map (PL18-0119), and a Special Conditional Use Permit (PL19-0011). In addition, permits and approvals would be required of other agencies in order to implement the Project as listed in Table 3-4, *Project Related Approvals/Permits*. The individual discretionary components of the Project are discussed below.

3.3.1 GENERAL PLAN AMENDMENT

Approximately 92.25 acres of the Project Site have a General Plan designation of "Agriculture (AG)" and approximately 4.75 acres are designated "Recreation/Open Space (R/OS)". Proposed General Plan Amendment PL18-0090 would amend the City of Chino General Plan Map to change the land use designations for parcels within the 97-acre Project Site from "AG" and "R/OS" to "General Industrial (GI)" as shown on Figure 3-4, *Proposed General Plan Amendment PL18-0090*. Pursuant to the Chino General Plan, the GI designation is intended for industrial or manufacturing uses, has a maximum floor area ratio (FAR) of 0.6, and requires a 1-acre minimum lot size. (Chino, 2010a, p. LU-14)

3.3.2 CHANGE OF ZONE

Approximately 92.25 acres of the Project Site have a zoning designation of "General Agriculture (AG)" and approximately 4.75 acres are designated "Open Space-Natural (OS-2)". Proposed Change of Zone PL18-0091 would amend the City of Chino Zoning Map to change the zoning classification for parcels within the 97-acre Project Site from "AG" and "OS-2" to "General Industrial (M2)" (refer to Figure 3-5, *Proposed Change of Zone PL18-0091*). The purpose of the M2 zoning designation is to provide areas for a broad range of industrial uses, manufacturing, utilities, and related uses. The M2 designation allows a maximum FAR of 0.6 and requires a 1-acre minimum lot size. (Chino, 2018, Section 20.08.020)

3.3.3 SITE APPROVALS

A. Site Layout & Architecture

The Project entails two proposed Site Approval applications for the development of two cross-dock industrial buildings. "Cross dock" means that loading docks would be positioned on two parallel sides (opposite sides) of the building.

- Proposed Site Approval PL18-0118 would provide for the development of a cross-dock industrial building with approximately 1,168,710 s.f. of floor area on the northern portion of the Project Site (herein, "Building 1").

- Proposed Site Approval PL18-0120 would provide for the development of a cross-dock industrial building with approximately 914,040 s.f. of floor area on the southern portion of the Project Site (herein, "Building 2").

The respective Site Approval application materials depict the proposed layouts of the proposed buildings and associated physical design features, conceptual architectural elevations for the buildings, and conceptual landscaping plans. The conceptual site plan for the Project Site is illustrated on Figure 3-6, *Site Approvals PL18-0118 & PL18-0120*. The two buildings proposed by Site Approvals PL18-0118 and PL18-0120 are described below. The future occupants of the buildings are not known at the time of writing this EIR, but based on the building designs, the Project Applicant has indicated that the occupants are expected to be high-cube fulfillment/e-commerce and/or high-cube logistics/cold storage warehouse businesses. The buildings would be required to be constructed in accordance with the California Building Standards Code and include all of the energy efficiency features required by Title 24 (CalGreen Code).

Building 1

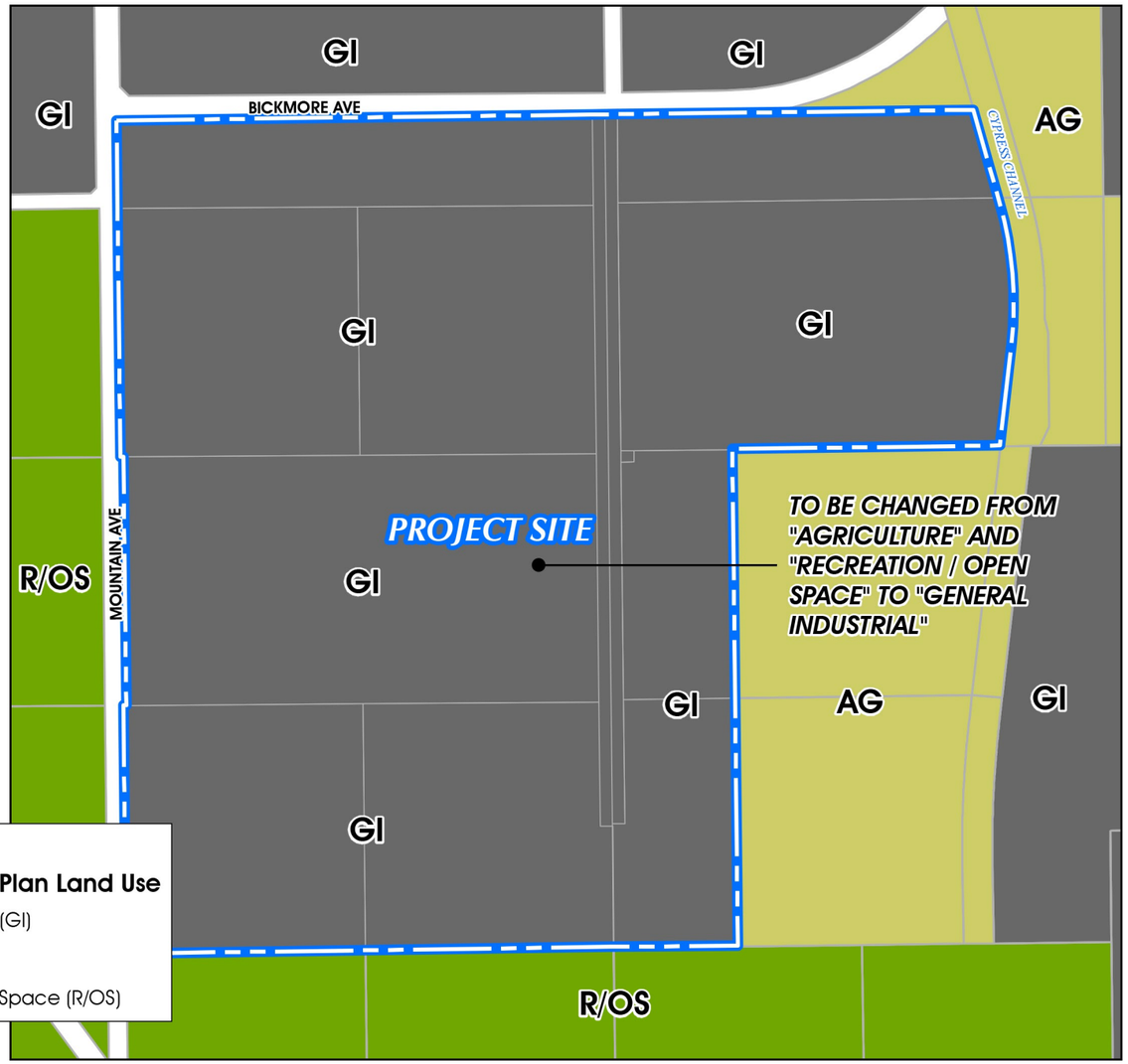
Building 1 is designed with a rectangular-shaped building footprint with its longer sides oriented parallel to the Site's northern boundary (generally parallel with Bickmore Avenue) and its shorter sides oriented parallel to the Site's western boundary (parallel with Mountain Avenue). Truck courts are located on the north and south sides of the building. The truck court on the north side of Building 1 features approximately (±) 123 loading docks and approximately (±) 137 trailer parking spaces. The truck court on the south side of Building 1 features approximately (±) 125 loading docks and approximately (±) 84 trailer parking spaces. The entry and exit points to the truck courts may be controlled by either automated gates or manned guard houses. Approximately (±) 411 passenger car parking spaces are distributed on the west and east sides of the building; approximately 8-percent of the passenger car parking spaces are reserved for carpool/vanpool parking and approximately 6-percent of the passenger car parking spaces are reserved for electric vehicle parking. Bike lockers with a capacity equivalent to approximately 5-percent of the passenger car parking spaces provided on-site are provided adjacent to the northwest and southwest corners of Building 1. In the event that parking lots and/or truck loading areas require parking space striping that varies from what is presented herein to support the operations of future building occupant(s), any alterations to the number of on-site passenger vehicle and tractor trailer parking spaces would be required to comply with the City's Municipal Code for parking stall size and drive aisle access. Access to Building 1 is provided from two private driveways connecting to Mountain Avenue and three private driveways connecting to Bickmore Avenue. One of the proposed driveways on Mountain Avenue is shared with Building 2 and allows access for both passenger cars and trucks with no turning movement restrictions (whereas the other is restricted to passenger cars only with no turning movement restrictions). The proposed westernmost driveway on Bickmore Avenue is restricted to passenger cars only with no turning movement restrictions; the two proposed eastern driveways are restricted to trucks with right in/right out turning movements only.

The typical height of Building 1 is approximately 52 feet above the finished floor elevation; however, the building features a varied roofline and the maximum height – including parapets and architectural projections – reaches approximately 59 feet above the finished floor elevation. (The building height may be increased in the future as permissible by the City's zoning code and subject to review by the City's Development Services Department.) The building would be constructed of concrete tilt-up panels and low-reflective, gray-tinted glass. The building's exterior color palette is proposed to be comprised of various shades of white and tan with grayish brown accents. Decorative building elements include panel reveals, parapets, mullions, and canopies at office entries. Conceptual architectural elevations for Building 1 are illustrated on Figure 3-7, *Conceptual Architectural Elevations: Building 1*. A 13-foot-tall concrete wall is provided along the interface

EXISTING



PROPOSED



LEGEND
City of Chino General Plan Land Use
- General Industrial (GI)
- Agriculture (AG)
- Recreation/Open Space (R/OS)

Source(s): ESRI, SANBAG (2018), SBCTA (2018)

0 100 200 400 Feet

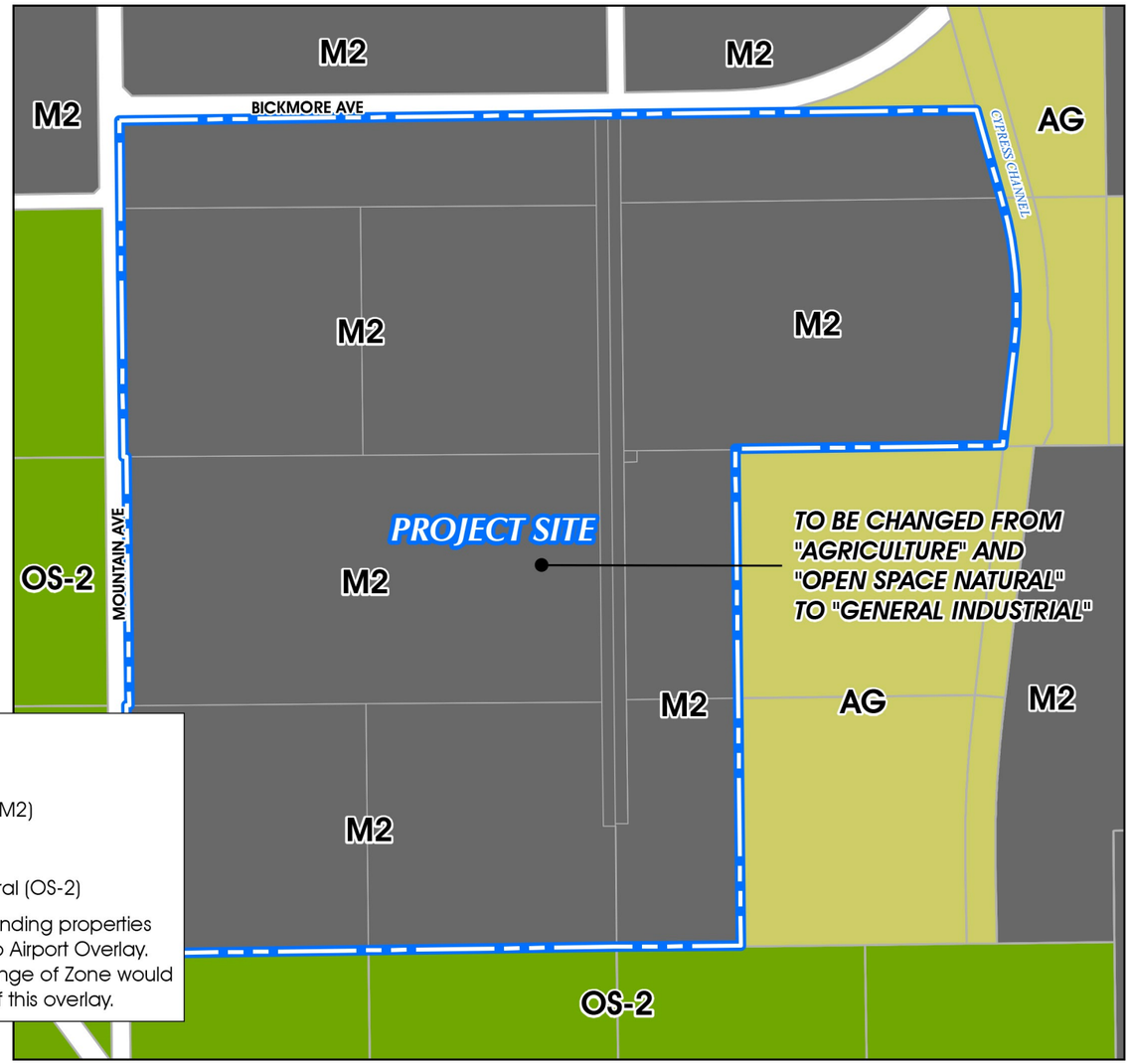
Figure 3-4

PROPOSED GENERAL PLAN AMENDMENT PL18-0090

EXISTING



PROPOSED

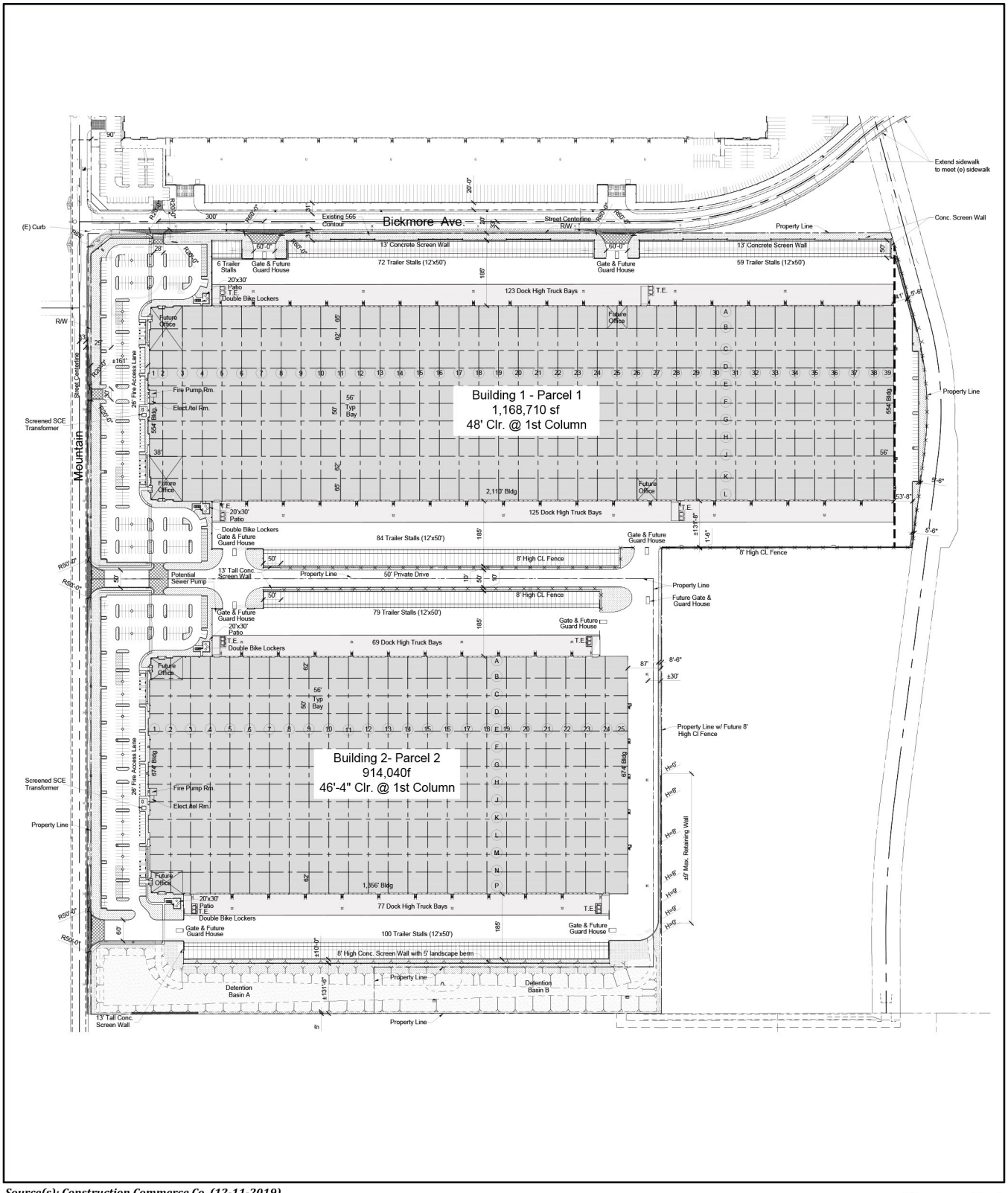


Source(s): ESRI, SANBAG (2018), SBCTA (2018)

0 100 200 400 Feet

Figure 3-5

PROPOSED CHANGE OF ZONE PL18-0091

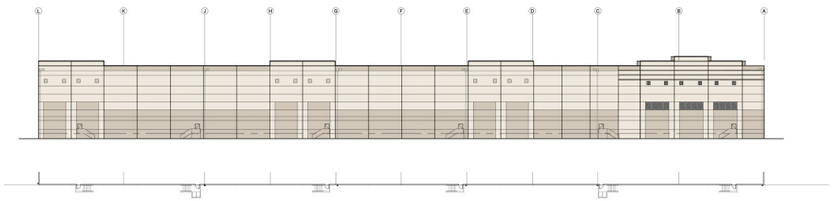


Source(s): Construction Commerce Co. (12-11-2019)

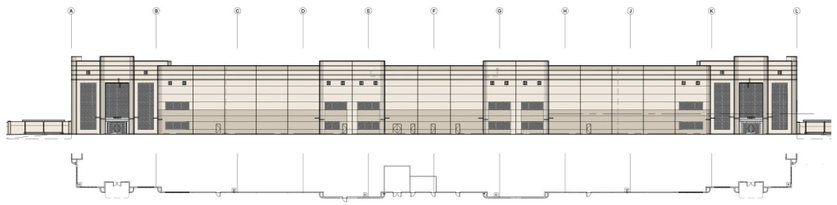
Figure 3-6

Not to Scale

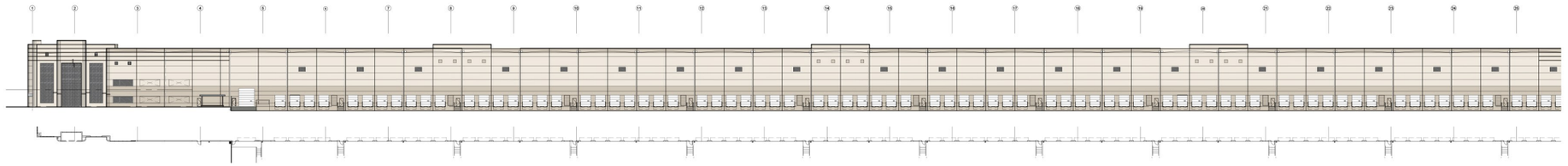
SITE APPROVALS PL18-0118 & PL18-0120



EAST ELEVATION



WEST ELEVATION



SOUTH ELEVATION

COLOR LEGEND

SHERWIN WILLIAMS
SW 7005
DOWNY WHITE

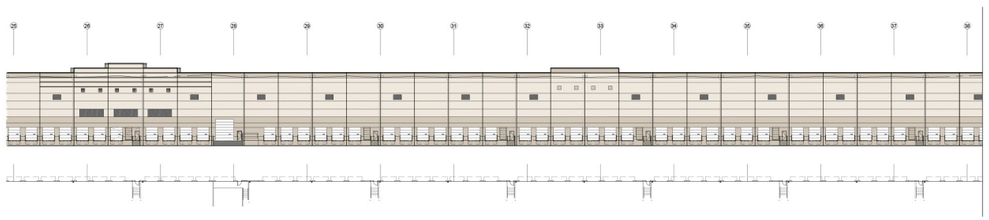
SHERWIN WILLIAMS
SW 7036
ACCESSIBLE BEIGE

SHERWIN WILLIAMS
SW 7046
ANONYMOUS

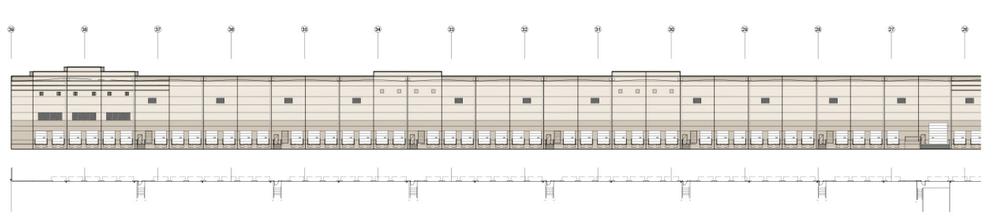
SOLAR COOL GLAZING
W/ CLEAR ANODIZE. ALUMN. FRAME

PRE-FINISHED OVERHEAD
DOORS
COLOR: WHITE

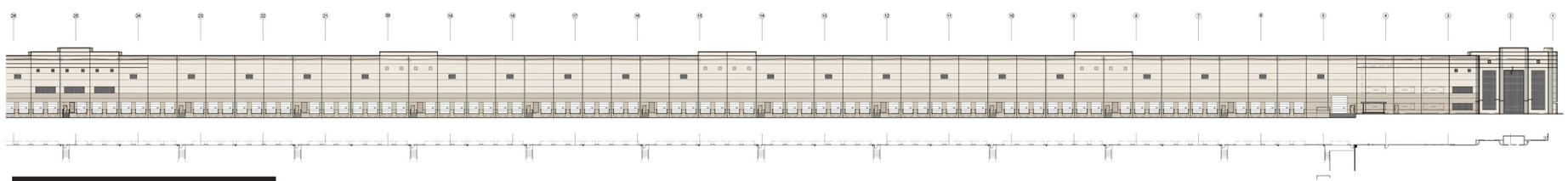
Building is Tilt Up Concrete Panels



SOUTH ELEVATION



NORTH ELEVATION



NORTH ELEVATION

Source(s): Construction Commerce Co. (04-01-2020)

Not to Scale

Figure 3-7

CONCEPTUAL ARCHITECTURAL ELEVATIONS: BUILDING 1

between the northern Project Site boundary and the northern truck court to screen the truck court from public view along Bickmore Avenue. An 8-foot-tall chain-link security fence is provided along the eastern and southeastern Project Site boundaries (which abut the Cypress Channel and an off-site stormwater detention basin, respectively).

Building 2

Building 2 is designed with a rectangular-shaped building footprint with its longer sides oriented parallel to the site's southern boundary and its shorter sides oriented parallel to the site's western boundary (parallel with Mountain Avenue). Truck courts are located on the north and south sides of the building. The truck court on the north side of Building 2 features approximately (±) 69 loading docks and approximately (±) 79 trailer parking spaces. The truck court on the south side of Building 2 features approximately (±) 77 loading docks and approximately (±) 100 trailer parking spaces. The entry and exit points to the truck courts may be controlled by either automated gates or manned guard houses. Approximately (±) 347 passenger car parking spaces are provided on the west side of the building; approximately 8-percent of the passenger car parking spaces are reserved for carpool/vanpool parking and approximately 6-percent of the passenger car parking spaces are reserved for electric vehicle parking. Bike lockers with a capacity equivalent to approximately 5-percent of the passenger car parking spaces provided on-site are provided adjacent to the northwest and southwest corners of Building 2. In the event that parking lots and/or truck loading areas require parking space striping that varies from what is presented herein to support the operations of future building occupant(s), any alterations to the number of on-site passenger vehicle and tractor trailer parking spaces would be required to comply with the City's Municipal Code for parking stall size and drive aisle access. Access to Building 2 is provided from two private driveways connecting to Mountain Avenue. The proposed northern driveway on Mountain Avenue is shared with Building 1 and allows access for both passenger cars and trucks with no turning movement restrictions. The proposed southern driveway on Mountain Avenue allows access for both passenger cars and trucks with no turning movement restrictions.

The typical height of Building 2 is approximately 52 feet above the finished floor elevation; however, the building features a varied roofline and the maximum height – including parapets and architectural projections – reaches approximately 59 feet above the finished floor elevation. (The building height may be increased in the future as permissible by the City's zoning code and subject to review by the City's Development Services Department.) The building would be constructed of concrete tilt-up panels and low-reflective, gray-tinted glass. The building's exterior color palette is proposed to be comprised of various shades of white and tan with grayish brown accents. Decorative building elements include panel reveals, parapets, mullions, and canopies at office entries. Conceptual architectural elevations for Building 2 are illustrated on Figure 3-8, *Conceptual Architectural Elevations: Building 2*. An 8-foot-tall concrete wall is provided along the southern edge of the truck court to screen views into the truck court from the adjacent El Prado Golf Course facility. The concrete screen wall is designed to be constructed atop a 5-foot-tall earthen berm, for a total screening height of 13 feet. An 8-foot-tall chain-link security fence is provided along the eastern Project Site boundary (which abuts an off-site stormwater detention basin).

B. Conceptual Landscape Plan

All existing vegetation on the Project Site is proposed to be removed and replaced with ornamental landscaping, as illustrated on Figure 3-9, *Conceptual Landscape Plan*. The proposed landscape plan features drought-tolerant trees, shrubs, and accent plants in addition to a variety of groundcovers. Landscaping would be concentrated along Mountain Avenue and Bickmore Avenue, in and around passenger car parking lots, and along the eastern Project Site boundary. A thematic landscape treatment with interpretive exhibit highlighting the dairy farm heritage of the Chino Valley is proposed to be installed in the northwest corner of the Project Site, adjacent to the Mountain Avenue/Bickmore Avenue intersection. The interior of the water quality/detention basin along the southern Project Site boundary would be landscaped as well. The Project Applicant would be required to submit final planting and irrigation plans to the City of Chino for review and approval. Pursuant to City of Chino Municipal Code Chapter 20.19, proposed landscaping would be installed with automatic irrigation systems using water efficient irrigation equipment.

3.3.4 Vesting Parcel Map

Vesting Parcel Map PL18-0119 proposes to consolidate the 11 parcels that comprise the Project Site and create two (2) parcels to facilitate the implementation of Site Approval PL18-0118 and Site Approval PL18-0120, as described on the preceding pages.

3.3.5 Special Conditional Use Permit

The City of Chino requires the approval of a Special Conditional Use Permit to allow buildings with loading doors facing a public street. Because Building 1 includes loading doors facing Bickmore Avenue, a public street, a Special Conditional Use Permit will be required to implement the Project.

3.4 Technical Characteristics of the Project

3.4.1 Project Improvements

The physical improvements (e.g., public roadways, utility infrastructure) proposed to be constructed by the Project Applicant are summarized on the following pages. The Project Applicant will receive a credit of required development impact fees (DIF) or reimbursement for the direct construction of any physical improvements included in the City's DIF program (or subject to a reimbursement or other such agreement) once reconciled at the completion of construction and accepted by the City of Chino.

A. Public Road Improvements

The Project Site abuts two existing public streets: Bickmore Avenue to the north and Mountain Avenue to the west. As part of developing the proposed Project, the Project Applicant would construct frontage improvements to each of these public roads as described below.

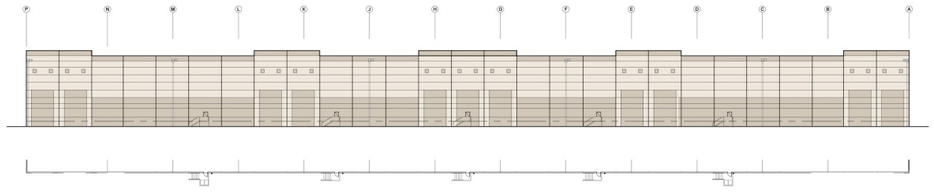
Additionally, implementation of the Project would require the vacation of on-site public right-of-way for an unbuilt segment of Cypress Avenue. The right-of-way to be vacated is known by the term "paper street" because the alignment exists only on maps, with no physical attributes constructed on the property. The public right-of-way vacation would be implemented via proposed Vesting Parcel Map PL18-0119.



WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

COLOR LEGEND

SHERWIN WILLIAMS
SW 7005
DOWNY WHITE

SHERWIN WILLIAMS
SW 7066
GRAY MATTERS

SOLAR COOL GLAZING
W/ CLEAR ANODZ. ALUMN. FRAME

PRE-FINISHED OVERHEAD
DOORS
COLOR: WHITE

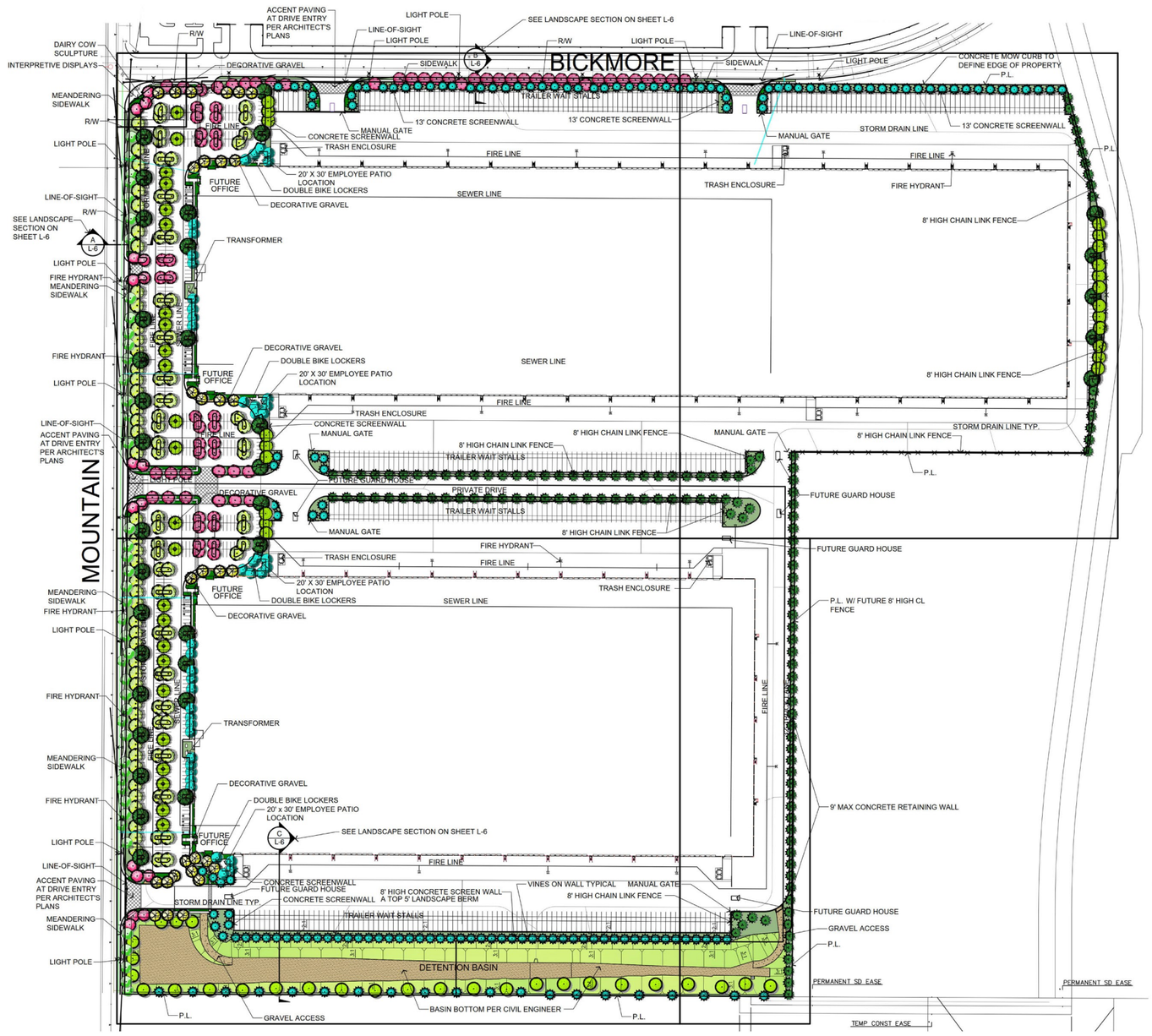
Building is Tilt Up Concrete Panels

Source(s): Construction Commerce Co. (04-01-2020)

Not to Scale

Figure 3-8

CONCEPTUAL ARCHITECTURAL ELEVATIONS: BUILDING 2



TREE LEGEND

TREES	BOTANICAL / COMMON NAME	CONT	WULCOL	QTY
	Cercidium x `Desert Museum` / Thornless Palo Verde	36"box	Low	30
	Cupaniopsis anacardioides / Carrot Wood	24"box	Med	44
	Koelreuteria bipinnata / Chinese Flame Tree	24"box		74
	Koelreuteria bipinnata / Chinese Flame Tree Multi-Trunk	36"box	Med	17
	Pinus eldarica / Afghan Pine	15 gal	Low	133
	Pinus eldarica / Afghan Pine SIZE - 24" BOX - WATER USE - WULCOL - LOW	24"box	Low	156
	Platanus racemosa / California Sycamore	15 gal	Med	27
	Platanus x acerifolia / London Plane Tree	24"box	Med	102
	Podocarpus gracilior / Fern Pine	36"box	Med	44
	Quercus virginiana / Southern Live Oak	24"box	Low	34
	Rhus lancea / African Sumac	15 gal	Low	45

CONCEPT PLANT SCHEDULE

VINES TO SCREEN TRUCK AREA
Distictis buccinatoria / Blood Red Trumpet Vine
Macfadyena unguis-cati / Yellow Trumpet Vine

LOW WATER ACCENT SHRUB PALETTE IN GRAVEL AREAS
Agave americana / Century Plant
Agave americana `Marginata` / Variegated Century Plant
Baccharis pilularis `Pigeon Point` / Coyote Brush
Hesperaloe parviflora / Red Yucca
Hesperoyucca whipplei / Chaparral Yucca
Lantana montevidensis `New Gold` / Trailing Lantana
Muhlenbergia rigens / Deer Grass
Pennisetum advena `Rubrum` / Fountain Grass
Rosmarinus officinalis `Huntington Carpet` / Huntington Carpet Rosemary

SHRUB PALETTE - LOW WATER USE
Shrubs
Anigozanthos flavidus `Big Red` / Red Kangaroo Paw
Anigozanthos flavidus `Gold Velvet` / Kangaroo Paw
Arbutus unedo / Strawberry Tree Shrub
Baccharis pilularis `Pigeon Point` / Coyote Brush
Callistemon citrinus / Lemon Bottlebrush Shrub
Callistemon citrinus `Little John` / Dwarf Bottle Brush
Cistus x purpureus / Orchid Rockrose
Elaeagnus pungens `Fruitlandii` / Silverberry
Heteromeles arbutifolia / Toyon
Macfadyena unguis-cati / Yellow Trumpet Vine
Muhlenbergia microsperma / Littleseed Muhly
Myoporum parvifolium `Putah Creek` / Putah Creek Myoporum
Pennisetum setaceum `Rubrum` / Purple Fountain Grass
Rosmarinus officinalis `Tuscan Blue` / Tuscan Blue Rosemary
Westringia fruticosa / Coast Rosemary

SHRUB PALETTE - MEDIUM WATER USE
Buxus x `Green Gem` / Green Gem Boxwood
Ligustrum texanum / Texas Privet
Nandina domestica / Heavenly Bamboo
Podocarpus gracilior `Column` / Fern Pine
Rhaphiolepis indica `Clara` / Indian Hawthorn
Xylosma congestum / Shiny Xylosma

WQMP - BASIN / BIOSWALE HYDROSEED MIX
Hydroseed Slurry Component for slopes from 3:1 to 2:1
Product - Application Rate
1. Conwed 1,000 Wood Fiber Mulch - 2,000 lbs / acre
Ecology Controls M-Binder / Tack - 200 lbs / acre
Biosol Mix 7-2-3 Organic fertilizer - 800 lbs / acre
AM 120 Mycorrhizal inoculum - 60 lbs / acre
Achillea millefolium / 1 Lbs / Acre
Deschampsia cespitosa / 4 Lbs/Acre
2. Eschscholzia caespitosa / 1 Lbs/Acre
Festuca rubra `Molate` / 20 Lbs/Acre
Hordeum brachyantherum / 6 Lbs/Acre
Hordeum depressum / 3 Lbs/Acre
Juncus bufonius / 1 Lbs/Acre
3. Leymus triticoides `Rio` / 6.0 Lbs/Acre
Muhlenbergia microsperma / Littleseed Muhly
Muhlenbergia rigens / 1 Lbs/Acre

GROUND COVER PALETTE - LOW WATER USE
Acacia redolens `Desert Carpet` TM / Bank Catclaw
Baccharis pilularis `Pigeon Point` / Coyote Brush
Lantana montevidensis `New Gold` / Trailing Lantana
Myoporum parvifolium `Putah Creek` / Putah Creek Myoporum
Rosmarinus officinalis `Huntington Carpet` / Huntington Carpet Rosemary

GROUND COVER PALETTE - MEDIUM WATER USE
Hemerocallis x `Bitsy` / Yellow Daylily
Rosa x `Flower Carpet Pink` / Rose
Trachelospermum jasminoides / Star Jasmine

Source(s): Environs Inc (04-01-2020)

Not to Scale

Figure 3-9

CONCEPTUAL LANDSCAPE PLAN

Bickmore Avenue Improvements

Under existing conditions, Bickmore Avenue is constructed to its ultimate full pavement width with curb and gutter on both sides of the street and a landscaped parkway and sidewalk on the north side of the street. The Project would not result in any alterations to the Bickmore Avenue travel way, with the exception of any additional/replacement pavement, curb, and/or gutter needed to accommodate the construction of the Project's three proposed driveways connecting with Bickmore Avenue, including additional pavement and widening needed to provide adequate turn pockets and transition lanes at the Bickmore Avenue/Mountain Avenue intersection. The Project also provides for the installation of a 6-foot-wide landscaped park strip and a 5-foot-wide sidewalk on the south side of Bickmore Avenue along the Project Site frontage.

Mountain Avenue Improvements

Under existing conditions, Mountain Avenue is constructed as a two-lane road along the Project Site frontage with no curb and gutter, sidewalks, or landscaped park strips/parkways. The Project Applicant would make improvements to the east side of Mountain Avenue where it abuts the Project Site, including an additional ±10 feet of pavement in the travel way, curb and gutter, and landscaping and a meandering sidewalk within an approximately 11-foot-wide parkway. The Project Applicant also would dedicate public-right-of-way for Mountain Avenue (to the ultimate 33-foot half-width) to the City of Chino along the Project Site frontage and would remove existing power poles and above-ground electrical lines along the Mountain Avenue frontage and underground the lines. The Project is designed to have three driveways connecting with Mountain Avenue.

B. Water and Sewer Infrastructure Improvements

The Project provides for the installation of a new 12-inch-diameter water main and an 18-inch-diameter recycled water main beneath Mountain Avenue, along the Project Site frontage. The proposed water and recycled water mains will connect to existing facilities beneath the Bickmore Avenue/Mountain Avenue intersection. The Project also provides for a connection to the existing 12-inch-diameter water main beneath Bickmore Avenue. All proposed water facilities are required to be designed and constructed in accordance with City of Chino standards.

The Project will receive wastewater conveyance service from an existing 24-inch-diameter sewer main beneath Mountain Avenue. The Project's permanent connection to the existing sewer main will occur due south of the Bickmore Avenue/Mountain Avenue intersection (with a temporary connection farther south on Mountain Avenue, if necessary). The IEUA is planning to construct a lift station in this area, which is an IEUA-led project. The Project Applicant will enter into an agreement with the IEUA to allow the Project's wastewater infrastructure to be serviced by the IEUA's planned lift station. All proposed wastewater conveyance facilities installed in the right-of-way as part of the proposed Project are required to be designed and constructed in accordance with City of Chino and IEUA standards.

Figure 3-10, *Conceptual Utility Plan*, illustrates the Project's proposed water and wastewater conveyance system.

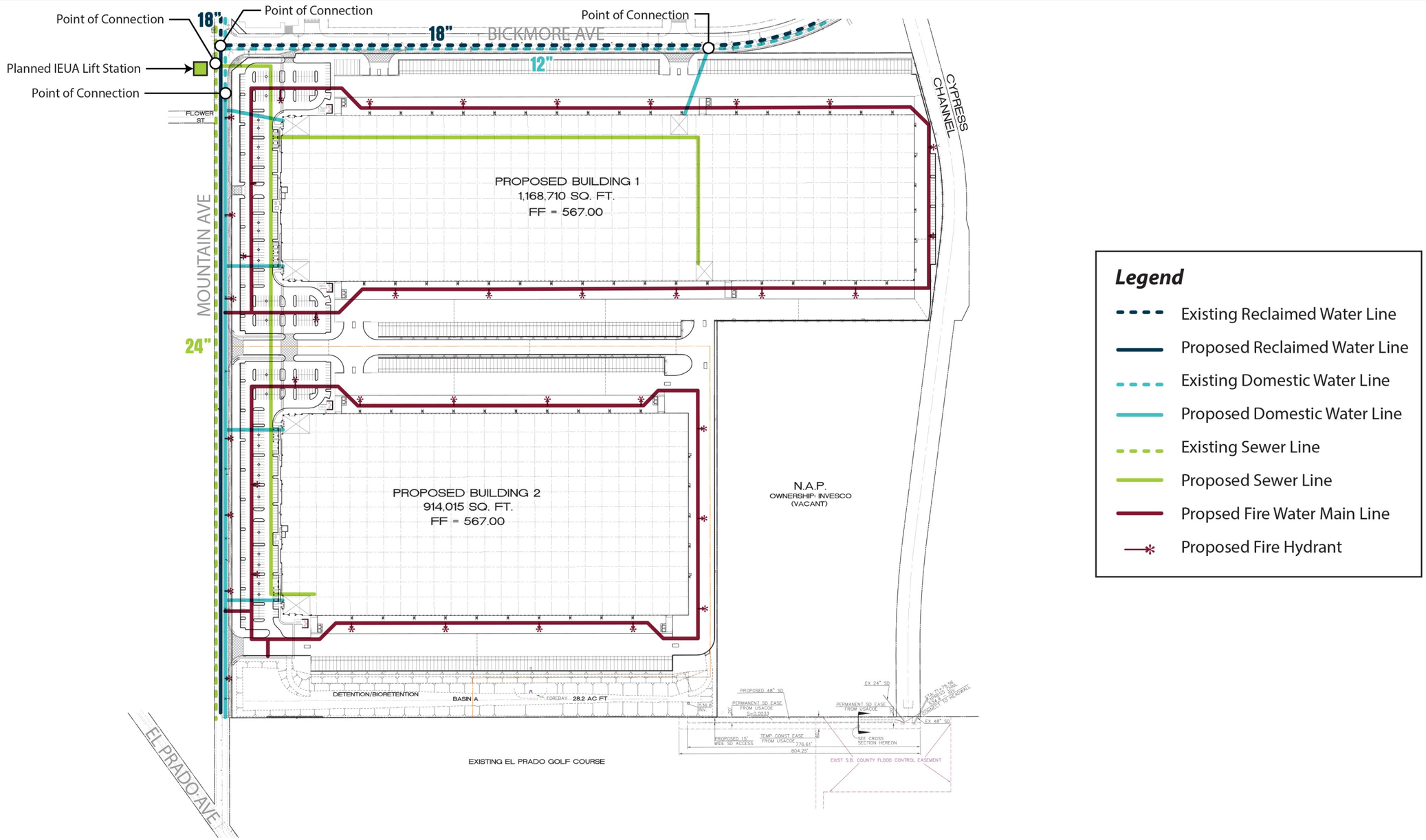
C. Stormwater Drainage Infrastructure Improvements

The Project's stormwater drainage system is illustrated on Figure 3-11, *Drainage Plan*. The system consists of a network of catch basins and underground storm drain pipes to capture and convey storm water runoff from across the Project Site to a proposed water quality/detention basin located along the southern boundary of the Project Site. The system is designed to collect, treat, and temporarily detain on-site stormwater runoff before discharging treated flows off-site. Specifically, "first flush" flows (i.e., typically the first ¾-inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be diverted to the water quality/detention basin for treatment. During peak storm events, the basin also would temporarily detain stormwater runoff on-site and would control the release of stormwater flows from the Project Site. From the water quality/detention basin, stormwater runoff flows would be discharged to a proposed private underground storm drain line that is proposed to extend off-site, extending from the southeastern corner of the Project Site to a new outlet installed in an existing concrete wingwall above the ordinary high water mark (OHWM) at the terminus of the concrete-line Cypress Channel.

D. Earthwork and Grading

The grading concept for the Project is illustrated on Figure 3-12, *Conceptual Grading Plan*. Following grading, the high point of the Project Site (567 AMSL) would occur in the northwest corner of the site and the property would gradually slope to a low point (559 AMSL) in the southern truck court for Building 2. The finished floor elevations of Buildings 1 and 2 also would be 567 AMSL. The conceptual grading plan provides for the construction of manufactured slopes and retaining wall segments (maximum height of 8 feet) along the Site's eastern boundary and along the perimeter of the proposed water quality/detention basin at the Project Site's southern boundary. Manufactured slopes would have a maximum gradient of 2:1.

Under existing conditions, most of the Project Site is at an elevation below 566 AMSL, upstream of the Prado Dam and within the Prado Dam Reservoir Area (i.e., areas at or below 566 feet AMSL). In order to develop the proposed Project as designed, the ground surface elevations of the proposed industrial building footprints would need to be raised out of the Prado Dam Reservoir Area while simultaneously lowering the elevations of other sites within the Reservoir Area in order to maintain the Reservoir Area's overall capacity to hold water that may back up behind the dam during rare, extreme storm events. Implementation of the Project requires the finished floor elevations for Buildings 1 and 2 to be above 566 AMSL. Accordingly, implementation of the Project's grading plan entails the excavation and transport of approximately 609,000 cubic yards (c.y.) of fill dirt from off-site "excess fill dirt sites" within the Reservoir Area of the Prado Dam to the Project Site in order to set the finished floor elevations of the proposed buildings to 567 feet AMSL and simultaneously create additional flood water holding capacity in the Reservoir Area to offset the water holding capacity that would be lost on the Project Site. Five (5) properties are identified as prospective sources of the fill dirt for the Project Site. The five excess fill dirt sites range between approximately 1.3 and 4.2 roadway miles from the Project Site and their locations are illustrated on Figure 3-13, *Excess Fill Dirt Sites Location Map*. The Project Applicant expects that all fill dirt required for the Project will be obtained from Excess Fill Dirt Site Nos. 1, 3, and 4; however, in the event that Excess Fill Dirt Sites 1, 3, and 4 do not produce the expected quantities of the dirt needed for the Project Site, additional fill dirt may be obtained from Excess Fill Dirt Site Nos. 2 and/or 5. The analysis in this EIR also assumes that other sites within a ±5-mile radius of the Project site could be

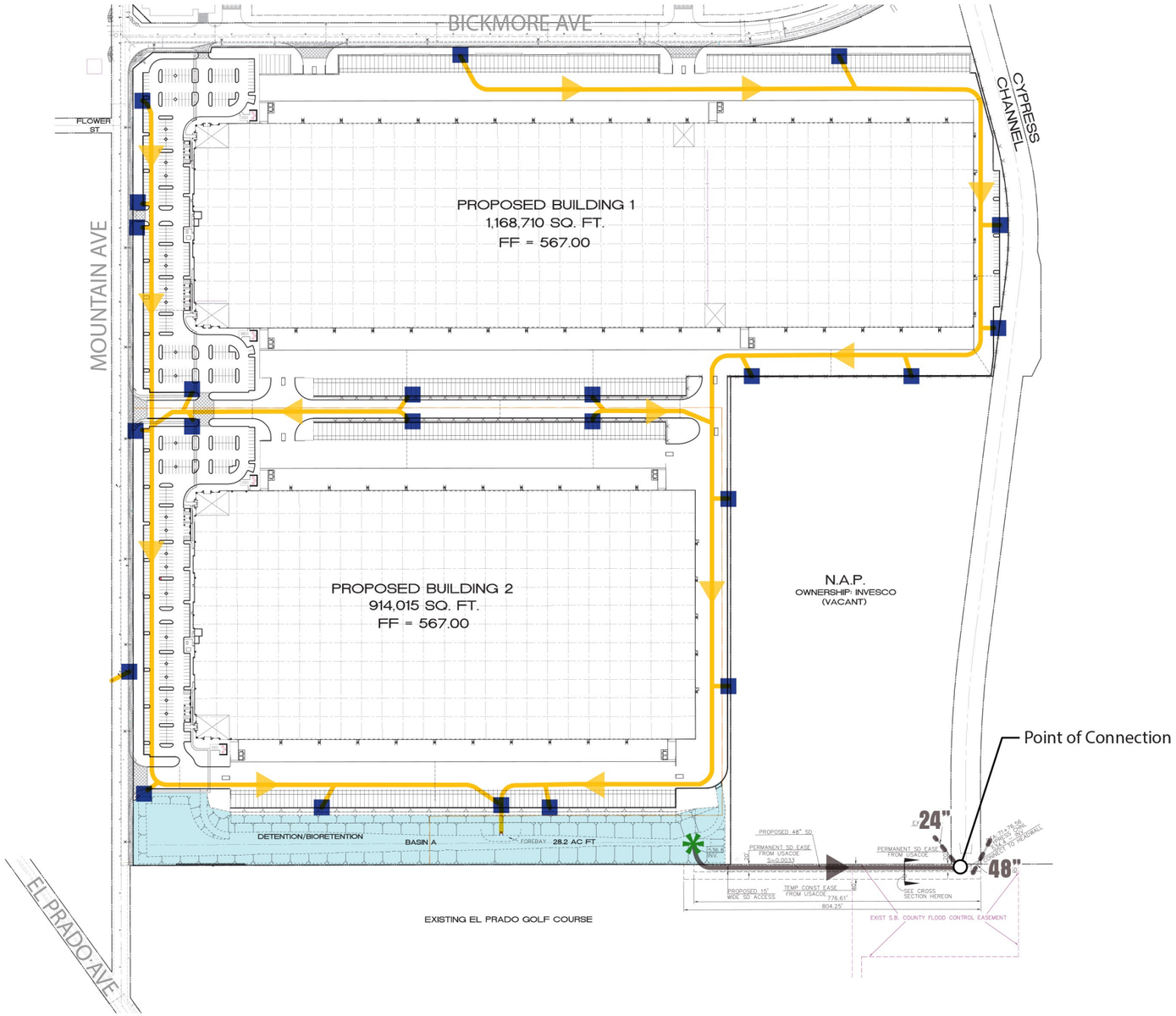


Source(s): PBLA Engineering, Inc. (01-24-2020)

Not to Scale

Figure 3-10

CONCEPTUAL UTILITY PLAN

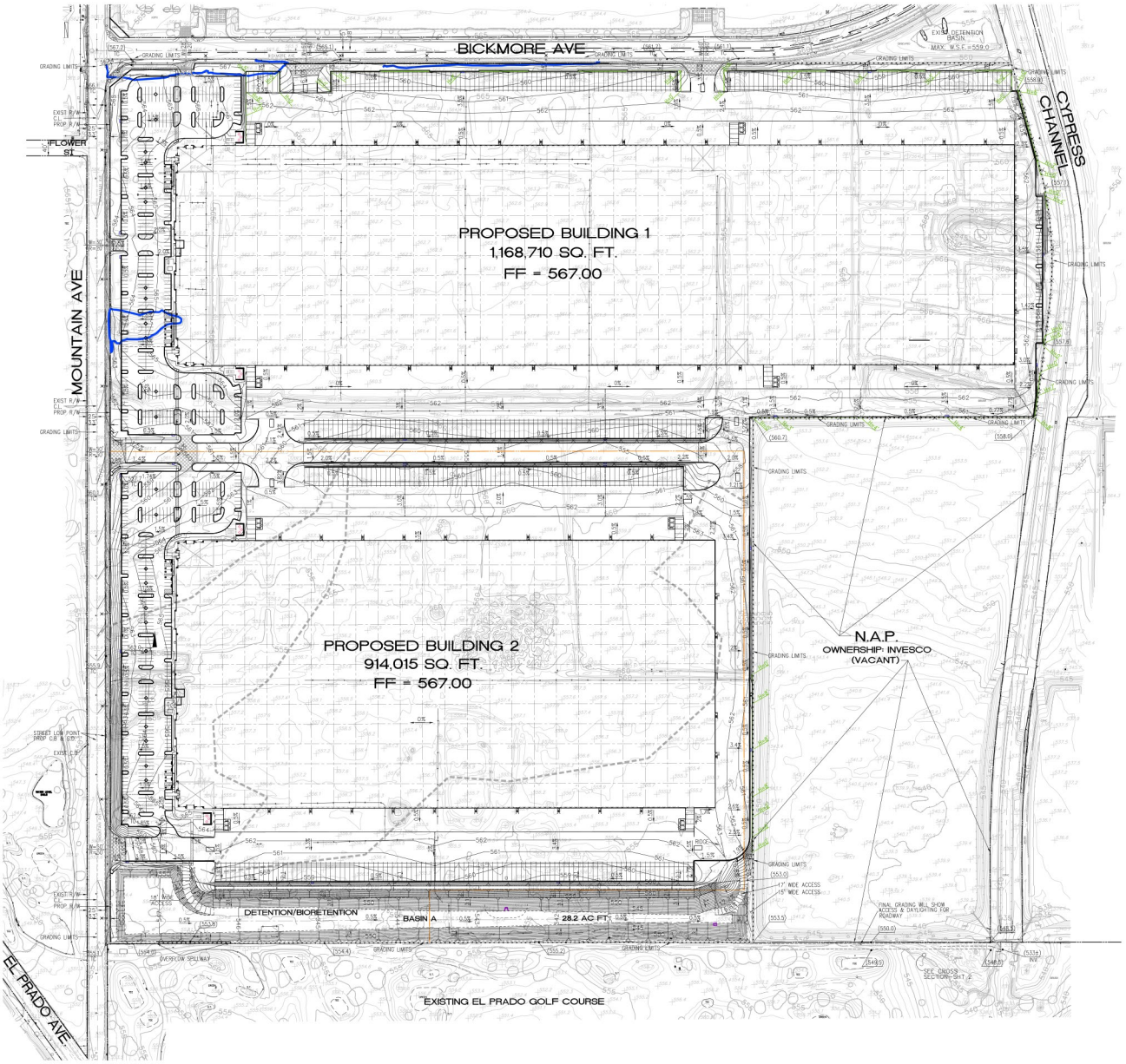


Source(s): PBLA Engineering, Inc. (01-24-2020)

Not to Scale

Figure 3-11

DRAINAGE PLAN

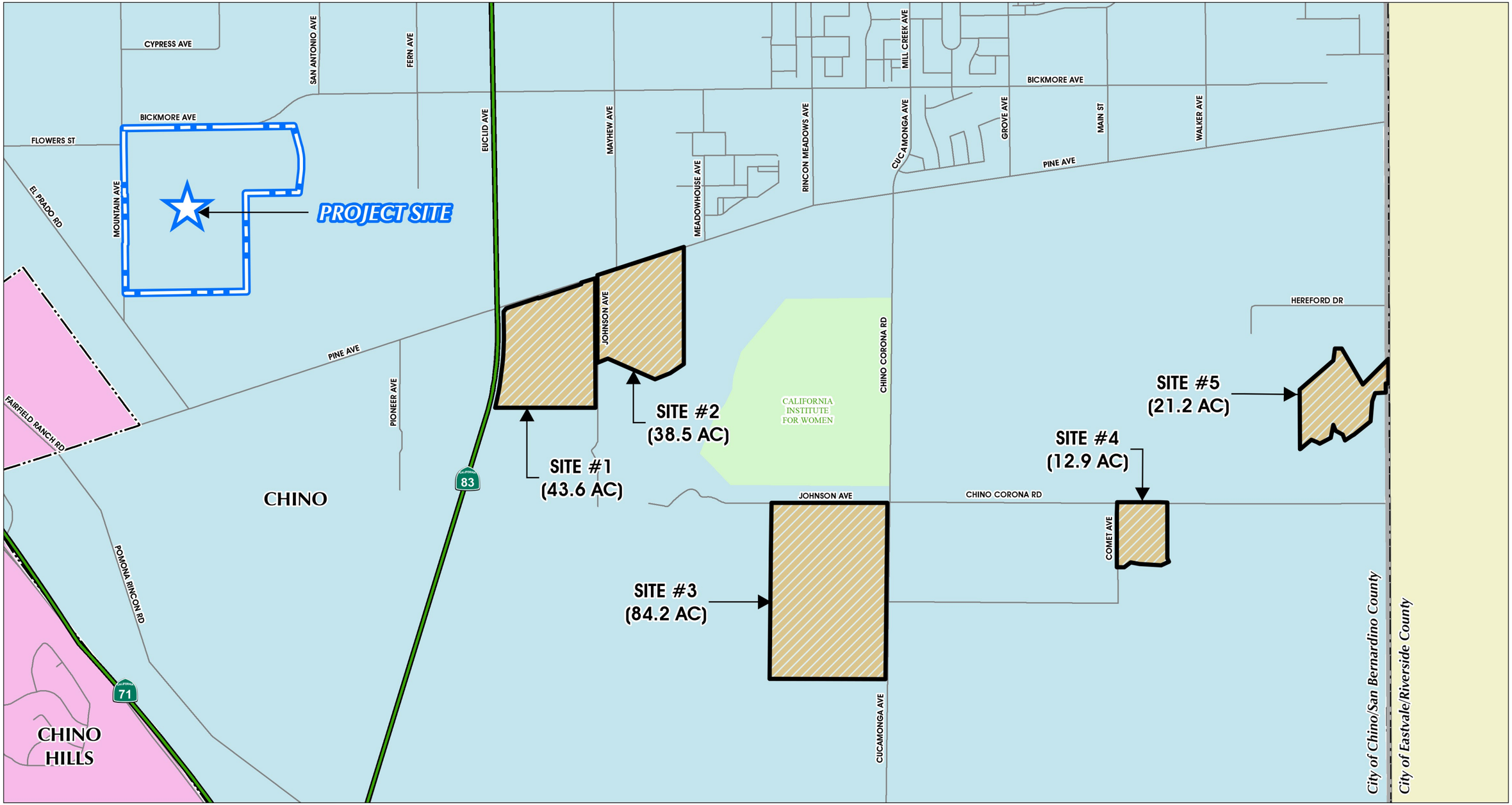


Source(s): PBLA Engineering, Inc. (01-24-2020)

Figure 3-12

Not to Scale

CONCEPTUAL GRADING PLAN



Source(s): ESRI, SBCTA (2018)

Figure 3-13

EXCESS FILL DIRT SITES LOCATION MAP

used for obtaining fill dirt, so long as the site(s) has all necessary environmental clearances for the export of earth materials. The proposed excavation and import of fill dirt from the excess dirt fill sites would require approval from the City of Chino via subsequent administrative actions and also would require a Real Estate Action by the U.S. Army Corps of Engineers and the issuance of a Construction General Permit from the Santa Ana Regional Water Quality Control Board. Ultimately, a net increase of approximately 190,000 cubic yards of flood capacity within the Prado Dam Reservoir Area is anticipated to result from the proposed Project.

The five prospective excess fill dirt sites are discussed individually below.

Excess Fill Dirt Site 1

The grading concept for Excess Fill Dirt Site 1 is shown on Figure 3-14, *Conceptual Grading Plan: Excess Fill Dirt Site 1*. Up to approximately 462,518 c.y. of dirt could be excavated from Excess Fill Dirt Site 1, with excavations occurring on approximately 28.6 acres of the approximately 43.7-acre site. The conceptual grading plan calls for excavations on the western and eastern portions of the site; the drainage course that bisects the site is left mostly untouched. Proposed earthwork cuts range from depths of one (1) foot or less to approximately 15 feet below the existing ground surface. The conceptual grading plan provides a gentle gradient toward the center of the site (as occurs under existing conditions), to a drainage course that bisects the site. Manufactured slopes, with a gradient of 4:1, would occur along portions of the northern, western, and eastern boundaries of Excess Fill Dirt Site 1. Excess Fill Dirt Site 1 will free flow and will not detain or retain stormwater runoff during normal storm events. Following completion of grading, the disturbed portions of Excess Fill Dirt Site 1 would be hydroseeded with a native plant seed mix to stabilize the site.

Excess Fill Dirt Site 2

The grading concept for Excess Fill Dirt Site 2 is shown on Figure 3-15, *Conceptual Grading Plan: Excess Fill Dirt Site 2*. Up to approximately 54,490 c.y. of dirt could be excavated from Excess Fill Dirt Site 2, with excavations occurring on approximately 20.8 acres of the approximately 38.5-acre site. The conceptual grading plan calls for excavations on the northern and western portions of the site that daylight (i.e., meet) existing ground contours) in the southern and eastern portions of the site. Proposed earthwork cuts range from depths of one (1) foot or less to approximately five (5) feet below the existing ground surface. The conceptual grading plan provides excavations that slightly deepen/exaggerate the site's existing north-to-south gradient during excavations and does not include any manufactured slopes. Excess Fill Dirt Site 2 will free flow and will not detain or retain stormwater runoff during normal storm events. Following completion of grading, disturbed areas of Excess Fill Dirt Site 2 would be hydroseeded with a native plant seed mix to stabilize the site.

Excess Fill Dirt Site 3

The grading concept for Excess Fill Dirt Site 3 is shown on Figure 3-16, *Conceptual Grading Plan: Excess Fill Dirt Site 3*. Up to approximately 156,222 c.y. of dirt could be excavated from Excess Fill Dirt Site 3, with excavations occurring on approximately 32.0 acres of the approximately 84.2-acre site. The conceptual grading plan calls for excavations on the northern and central portions of the site that daylight in the southern portion of the site. Proposed earthwork cuts range from depths of one (1) foot or less to approximately eleven (11) feet below the existing ground surface. Under existing conditions, the topography of Excess Fill Dirt Site

3 features a rolling characteristic that gradually slopes from the north (high point) to the south (low point). The conceptual grading plan provides a gradual north to south gradient at Excess Fill Dirt Site 3 under post-grading conditions. Manufactured slopes with 2:1 and 3:1 slopes would occur along portions of the northern, eastern, and western boundaries of Excess Fill Dirt Site 3. The proposed grading plan for Excess Fill Dirt Site 3 considers planned, future improvements (by others) to Cucamonga Avenue, which call for Cucamonga Avenue to be raised and widened where the road abuts Excess Fill Dirt Site 3. The grading plan for Excess Fill Dirt Site 3 provides a minimum five (5) foot wide setback between the top of any manufactured slopes on Excess Fill Dirt Site 3 and the toe of any manufactured slopes necessary to raise and widen Cucamonga Avenue. Excess Fill Dirt Site 3 will free flow and will not detain or retain stormwater runoff during normal storm events. Following completion of grading, the disturbed portions of Excess Fill Dirt Site 3 would be hydroseeded with a native plant seed mix to stabilize the site.

Excess Fill Dirt Site 4

The grading concept for Excess Fill Dirt Site 4 is shown on Figure 3-17, *Conceptual Grading Plan: Excess Fill Dirt Site 4*. Up to approximately 168,254 c.y. of dirt could be excavated from Excess Fill Dirt Site 4, with excavations occurring on the entirety of the approximately 12.9-acre site. The conceptual grading plan calls for excavations on central portions of the site that daylight in the southern portion of the site, as well as limited grading on adjacent Army Corps land to the south to facilitate surface drainage. Proposed earthwork cuts range from depths of one (1) foot or less to approximately 12 feet below the existing ground surface. The conceptual grading plan provides a gradual north to south gradient toward the Army Corps-owned Mill Creek Wetlands property, which is adjacent to the site's southern and eastern boundaries. Manufactured slopes, with a 2:1gradient, occur along the northern, eastern, and western boundaries of Excess Fill Dirt Site 4. Proposed manufactured slopes are set back by a minimum of approximately 20 feet from the northern, eastern, and western boundaries of Excess Fill Dirt Site 4. Upon completion of excavations, Excess Fill Dirt Site 4 would have a basin-like appearance due to the manufactured slopes along its northern, western, and eastern edges but the site will sheet flow and will not detain or retain stormwater runoff during normal storm events. After completion of grading, the disturbed portions of Excess Fill Dirt Site 4 would be hydroseeded with a native plant seed mix to stabilize the site (an approximately 0.8-acre area along the southern and eastern boundary of Excess Fill Dirt Site 4 that abuts the adjacent Mill Creek Wetlands walking path would be hydroseeded with a coastal sage scrub seed mix that matches the species currently present in the Wetlands).

Excess Fill Dirt Site 5

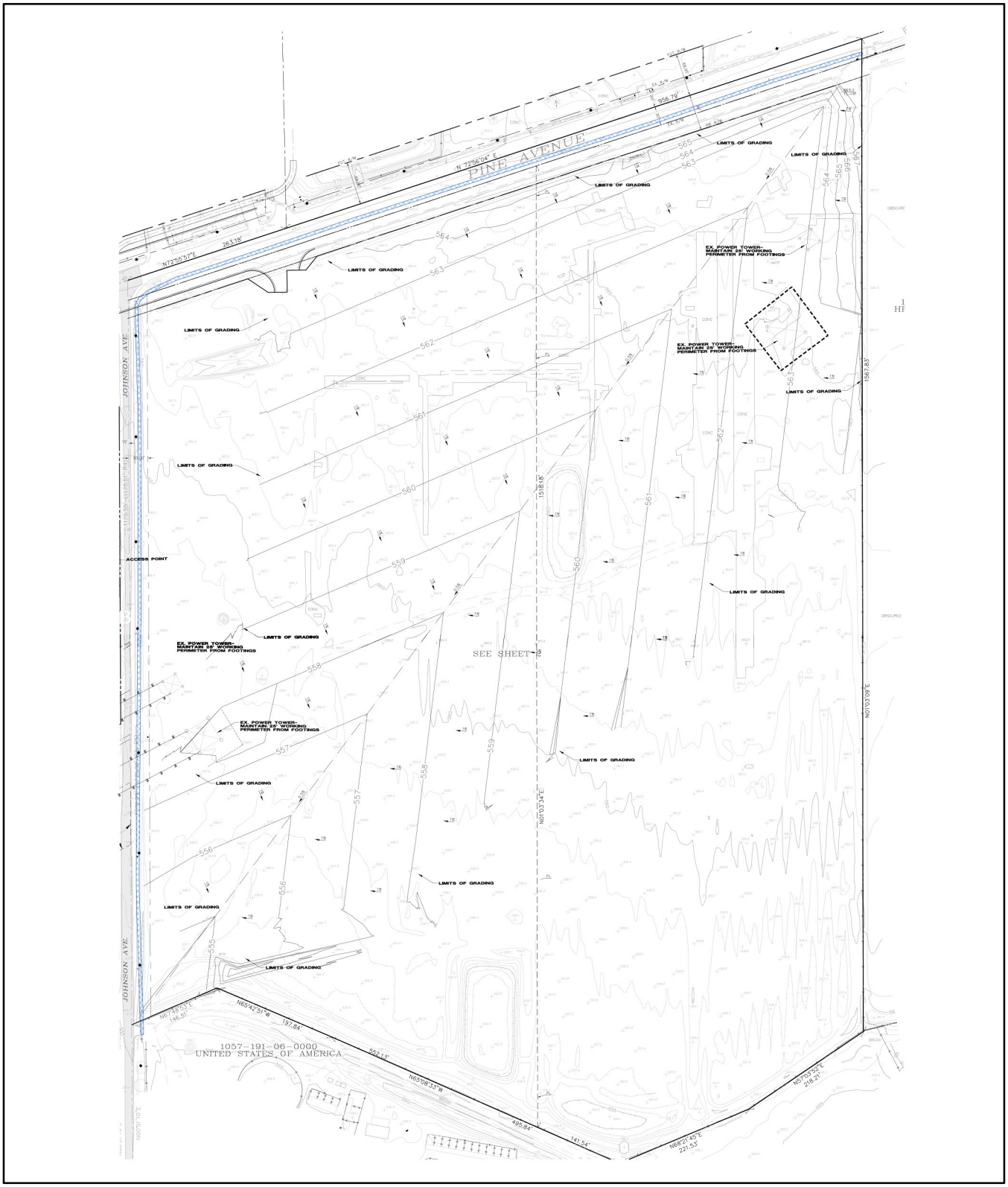
The grading concept for Excess Fill Dirt Site 5 is shown on Figure 3-18, *Conceptual Grading Plan: Excess Fill Dirt Site 5*. Up to approximately 98,867 c.y. of dirt could be excavated from Excess Fill Dirt Site 5, with excavations occurring on the entirety of the approximately 21.3-acre site. Proposed earthwork cuts range from depths of one (1) foot or less to approximately seven (7) feet below the existing ground surface. The conceptual grading plan provides a gentle gradient toward the south. Manufactured slopes, with maximum gradients of 2:1, occur along portions of the northern, southern, western, and eastern boundaries of Excess Fill Dirt Site 5. Excess Fill Dirt Site 5 will free flow and will not detain or retain stormwater runoff during normal storm events. After completion of grading, the disturbed portions of Excess Fill Dirt Site 5 would be hydroseeded with a native plant seed mix to stabilize the site.



Source(s): PBLA Engineering, Inc. (04-01-2020)

Not to Scale

Figure 3-14
CONCEPTUAL GRADING PLAN
EXCESS FILL DIRT SITE 1

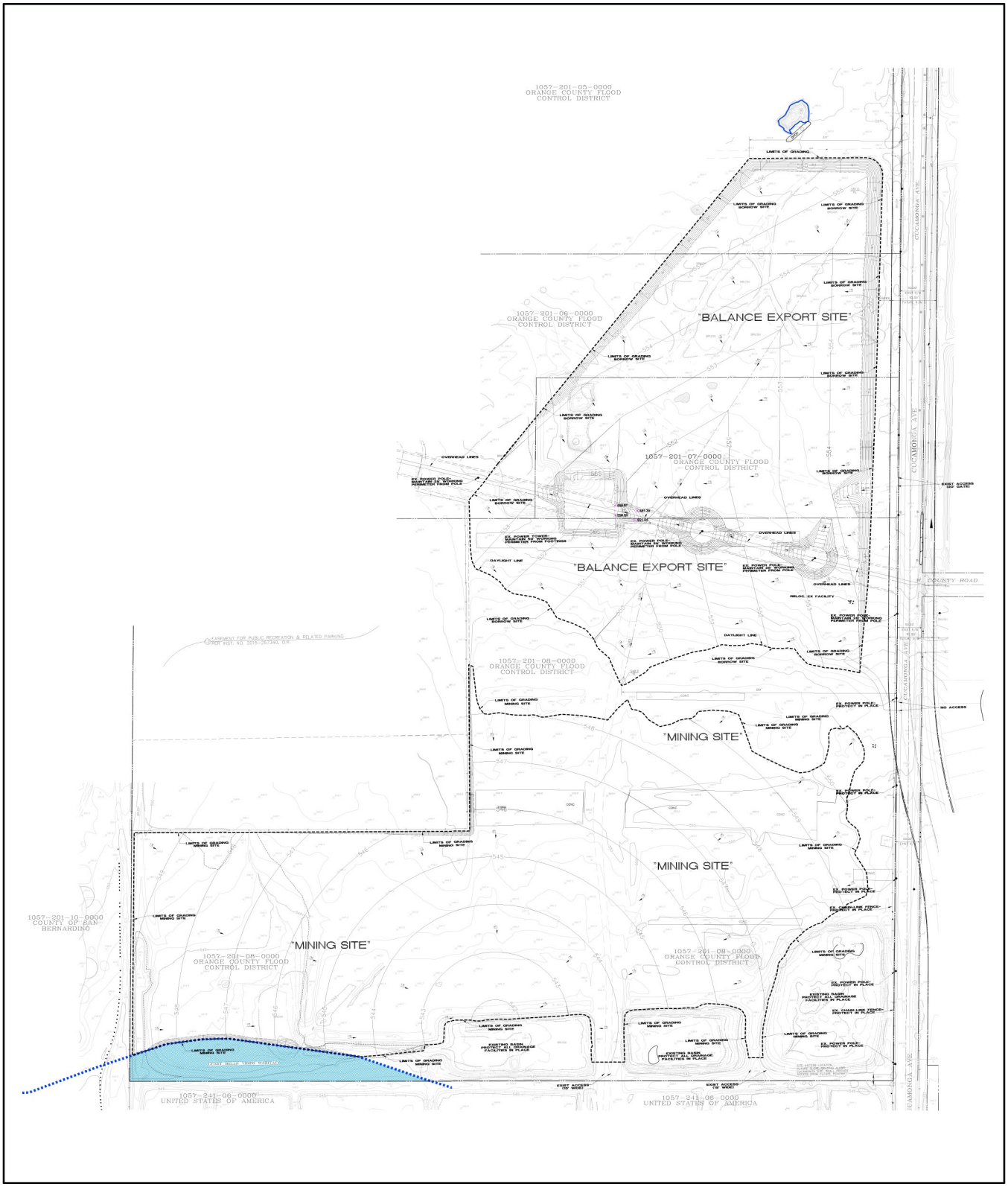


Source(s): PBLA Engineering, Inc. (04-01-2020)

Not to Scale

Figure 3-15

CONCEPTUAL GRADING PLAN
EXCESS FILL DIRT SITE 2



Source(s): PBLA Engineering, Inc. (04-01-2020)

Not to Scale

Figure 3-16

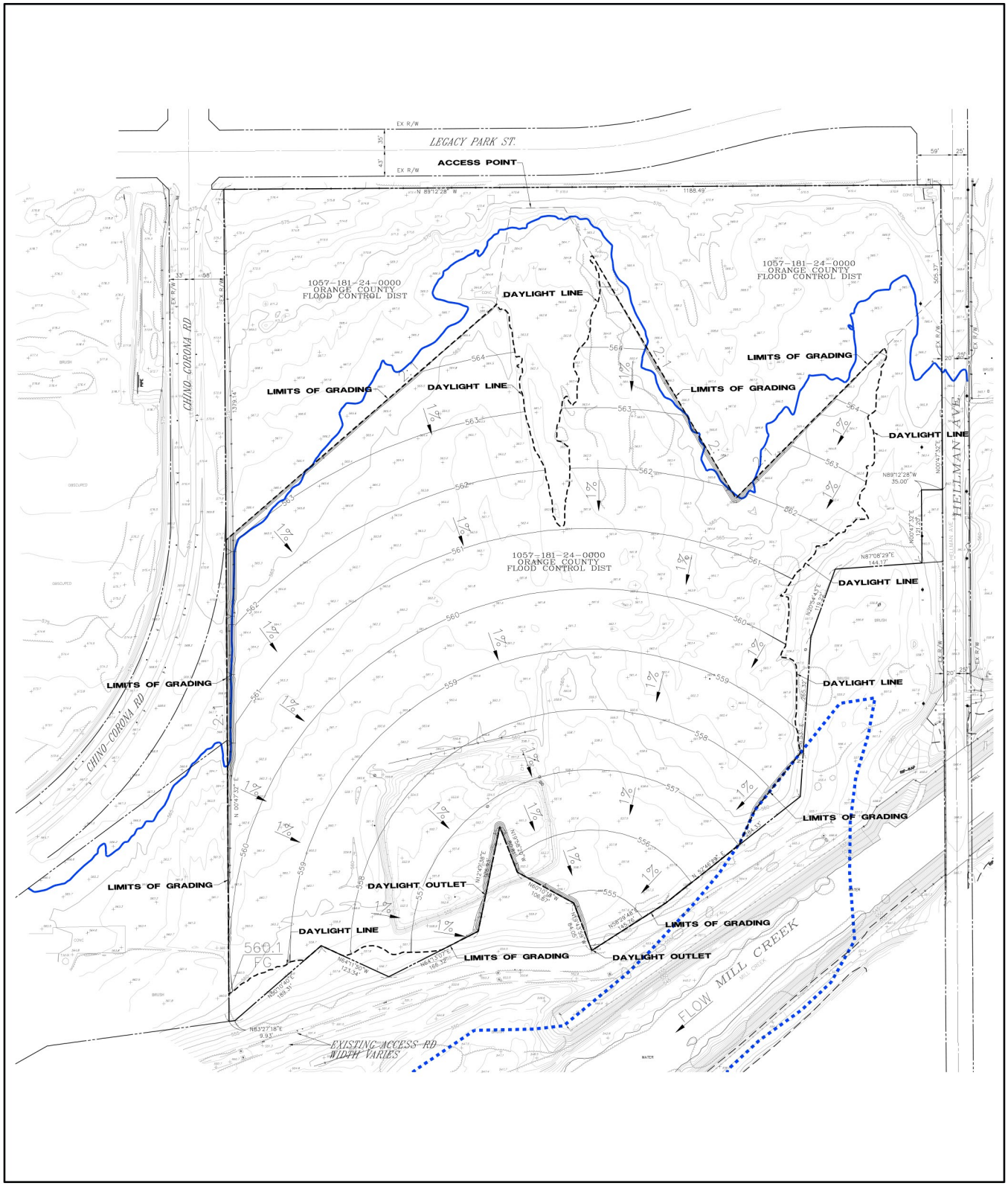
CONCEPTUAL GRADING PLAN
EXCESS FILL DIRT SITE 3



Source(s): PBLA Engineering, Inc. (04-01-2020)

Not to Scale

Figure 3-17
CONCEPTUAL GRADING PLAN
EXCESS FILL DIRT SITE 4



Source(s): PBLA Engineering, Inc. (04-01-2020)

Not to Scale

Figure 3-18

CONCEPTUAL GRADING PLAN
EXCESS FILL DIRT SITE 5

3.4.2 Construction Characteristics

The Project Applicant anticipates that the Project's construction process, including the excavation and transport activities from the excess fill dirt sites, would last approximately 18 months. The estimated construction phase durations, which are also used for purposes of analysis in this EIR, are summarized in Table 3-1, *Estimated Construction Schedule*. Although the exact calendar dates of each construction phase are subject to change, these dates are analyzed herein for purposes of presenting a specific and reasonably foreseeable construction schedule. The composition of the construction equipment fleet that the Project Applicant intends to use to construct the Project, which also is used for purposes of analysis is in this EIR, is summarized in Table 3-2, *Estimated Construction Equipment Fleet.*

Table 3-1 Estimated Construction Schedule

Phase Name	Estimated Start Date	Estimated End Date	# of Working Days
Soil Excavation and Import			
Project Site Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1	06/11/2021	08/26/2021	55
Project Site Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3	08/27/2021	09/27/2021	22
Project Site Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4	09/28/2021	10/26/2021	21
Project Site Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5 *(If Needed)*	10/27/2021	11/10/2021	11
Project Site Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2 *(If Needed)*	11/11/2021	11/18/2021	6
Building Construction			
On-Site Grading (Post Dirt Import)	11/19/2021	02/10/2022	60
Building Construction	02/11/2022	12/15/2022	220
Paving	07/15/2022	12/15/2022	110
Architectural Coating	03/25/2022	12/15/2022	190

Construction activities on the Project Site during the "Project Site Construction Process" indicated on the table above are expected to occur Monday through Saturday up to eight (8) hours per day, beginning at approximately 7:00am and concluding between 3:00pm and 4:00pm, based on the typical schedules of construction contractors (±8-hour work day with a ±1-hour lunch break). Exceptions would occur during concrete pouring activities which could occur during nighttime hours when the air temperature is cool enough to pour and cure concrete. Should on-site concrete pouring activities need to occur at night to facilitate proper concrete curing, pours would start at night and could continue through to the next day. In the event that construction-related activities occur during nighttime hours on the Project Site and/or the excess fill dirt sites (as described on the following page), temporary, overhead artificial lighting directed toward the work area would be provided to illuminate the work area.

Table 3-2 Estimated Construction Equipment Fleet

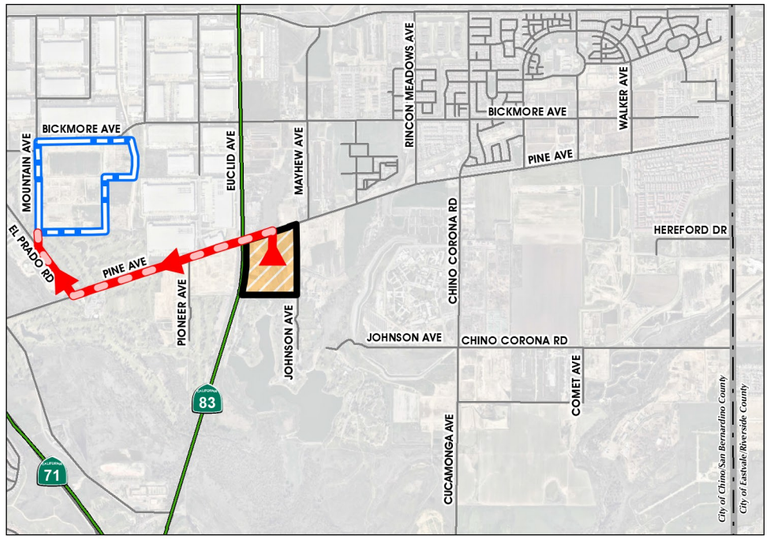
Activity	Equipment	Pieces of Equipment	Operational Hours Per Day
Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Sites			
Project Site Rough Grading	Scrapers	5	8
	Loader	1	8
	Water Pull	1	8
	Tractor	1	8
	Blade	1	8
Equipment at Excess Fill Sites #1-5	Excavators	2	8
	Water Truck	1	8
	Blade	1	8
	Street Sweeper	1	8
Project Site Construction Process			
On-Site Grading (Post Dirt Import)	Scrapers	5	8
	Loader	1	8
	Water Pull	1	8
	Tractor	1	8
	Blade	1	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Construction activities conducted during the "Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Sites" phase indicated on the table above could occur during daytime or nighttime hours (as described in more detail below). Fill soil excavation and transport activities would occur Monday through Saturday, either between the hours of 7:00am to 3:00pm *or* between the hours of 6:00pm to 2:00am (excavation and transport activities would not occur around the clock). The expected duration of soil excavation and transport activities at each of the excess fill dirt sites and the amount of peak hourly inbound and outbound haul truck trips at each of the excess fill dirt sites is summarized in Table 3-3, *Soil Excavation & Transport Schedule*. Soil excavation activities at the excess fill dirt sites would not overlap and would proceed in the order presented in Table 3-3. Haul trucks would travel along the routes shown on Figure 3-19.

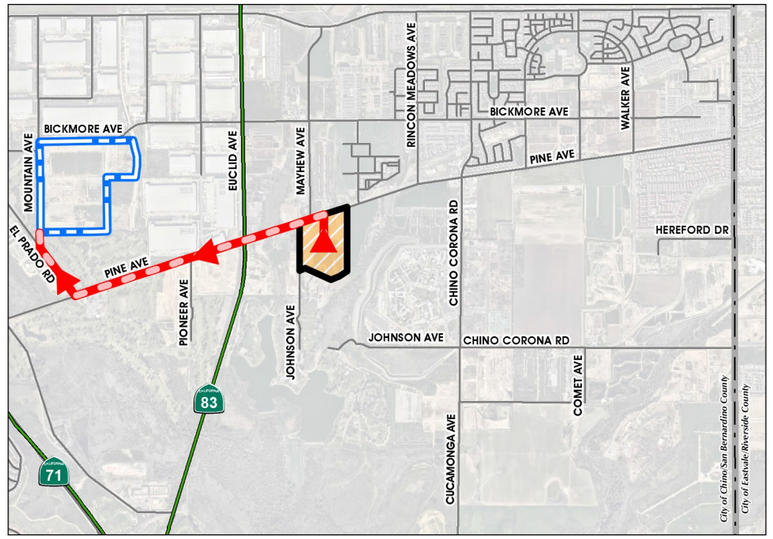
Table 3-3 Soil Excavation & Transport Schedule

Excess Fill Dirt Site	Duration (Days or Nights)	Peak Inbound and Outbound Truck Trips (Per Hour)
1	55	156
3	22	132
4	21	148
5*	11*	166*
2*	6*	168*

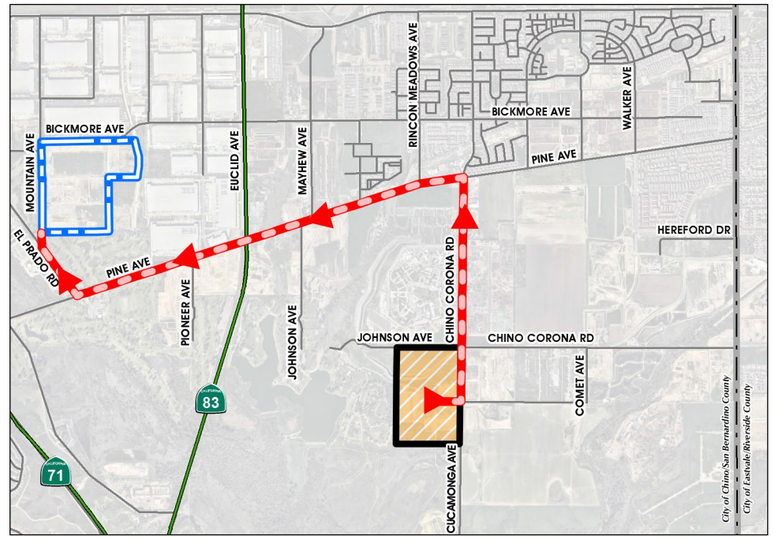
*If needed.



EXCESS FILL DIRT SITE #1



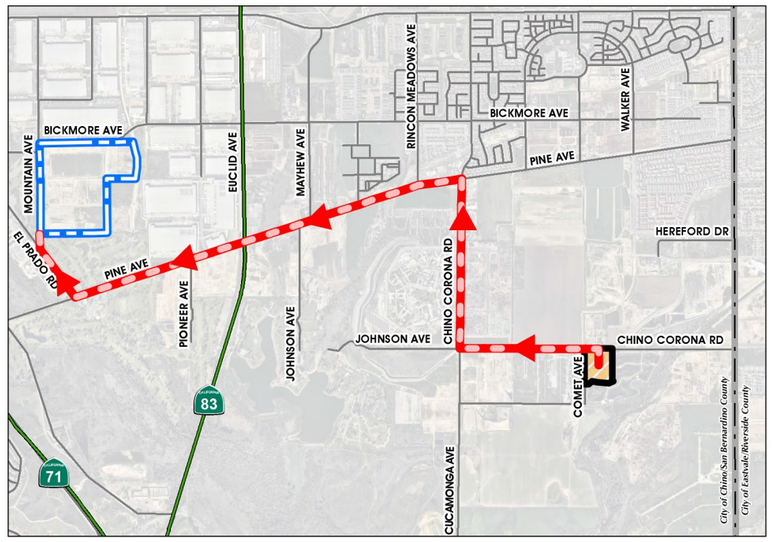
EXCESS FILL DIRT SITE #2



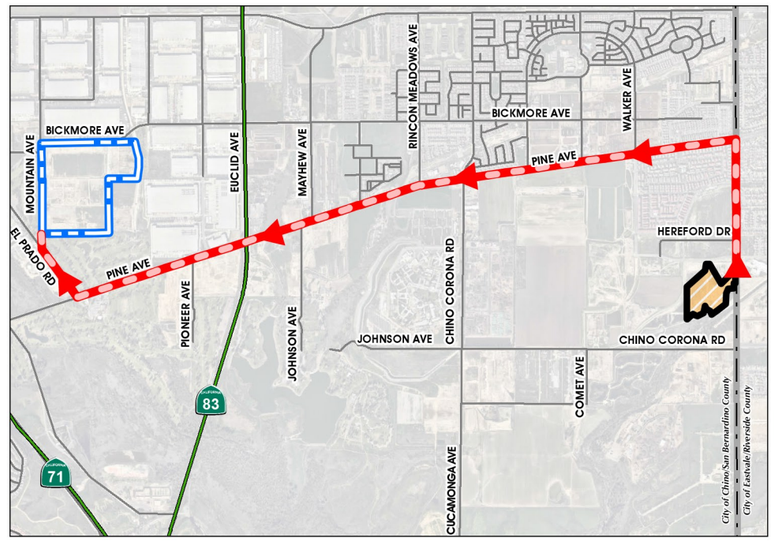
EXCESS FILL DIRT SITE #3

LEGEND

- Project Site
- Excess Fill Dirt Site
- Haul Route



EXCESS FILL DIRT SITE #4



EXCESS FILL DIRT SITE #5

Source(s): ESRI, Nearmap Aerial (2019)

0 925 1,850 3,700 Feet

Figure 3-19

SOIL IMPORT HAUL ROUTES

3.4.3 Operational Characteristics

The future occupants of the Project's two proposed industrial buildings are currently unknown. The Project Applicant expects that the buildings will be occupied by high-cube fulfillment/e-commerce and/or high-cube logistics businesses, and approximately 5% of the proposed floor area (±100,000 s.f.) could house cold storage or refrigerated uses. For purposes of evaluation in this EIR, it is assumed that the buildings would be operational 24 hours per day, seven days per week, with exterior loading and parking areas illuminated at night. Lighting would be subject to compliance with Chino Municipal Code § 20.10.090, which states that exterior lighting shall be energy-efficient, shielded, or recessed, and directed downward and away from adjoining properties.

The buildings are designed such that business operations would be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of tractor trailers at designated loading bays. As a practical matter, dock doors on industrial buildings are not occupied by a truck at all times of the day. There are typically many more dock door positions on industrial buildings than are needed for receiving and shipping volumes. The dock doors that are in use at any given time are usually selected based on interior building operation efficiencies. In other words, trucks ideally dock in the position closest to where the goods to be carried by the truck are inside the building. As a result, many dock door positions are frequently inactive throughout the day. Pursuant to State law, on-road diesel-fueled trucks are required to comply with various air quality and greenhouse gas emission standards, including but not limited to the type of fuel used, engine model year stipulations, aerodynamic features, and idling time restrictions. Compliance with State law is mandatory and inspections of on-road diesel trucks subject to applicable State laws are conducted by the California Air Resources Board (CARB).

During operation, employees, visitors, and vehicles hauling goods will travel to and from the Project Site on a daily basis. Project operations are calculated by a traffic study to generate approximately 4,440 vehicle trips per day, including 3,616 passenger vehicle trips and 824 truck trips (Urban Crossroads, 2019e, p. 81). Based on the City of Chino's standard water planning demand rates, Project operations are estimated to use approximately 139,236 gallons of water per day, including 107,496 gallons of domestic (indoor) water and 31,740 gallons of recycled (non-domestic) water. Also, the Project Applicant estimates that the Project will produce approximately 20,731 gallons of wastewater treatment per day. Lastly, the Project's energy usage is calculated to be 9,247,438 kilowatt hours (kWh) of electricity per year and 9,200,880 kilo British thermal units (kBTU) of natural gas per year. (Urban Crossroads, 2019c, p. 30; CMC, 2019, p. 3-3)

3.5 Summary of Requested Actions

The City of Chino has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050. The City's Planning Commission will evaluate this EIR and the Project Applicant's requested discretionary applications (General Plan Amendment, Zone Change, Vesting Tentative Parcel Map, two Site Approvals, and Special Conditional Use Permit). The Planning Commission will make a decision to approve, approve with changes, or deny the Project's site development applications (i.e., Vesting Tentative Parcel map, Site Approvals, and Special Conditional Use Permit) and, also, make a recommendation to the City Council whether the Project's legislative applications (i.e., General Plan Amendment and Zone Change) should be approved and this EIR should be certified. The

City Council is the decision-making authority for the Project's legislative actions and will consider the proposed General Plan Amendment and Zone Change along with the Planning Commission's recommendations and will make a final decision to approve or deny the proposed General Plan Amendment and Zone Change and certify this EIR. The City will consider the information contained in this EIR and the Project's Administrative Record in its decision-making processes. In the event of approval of the Project and certification of the EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval.

A list of the actions under City of Chino jurisdiction is provided in Table 3-4, *Project Related Approvals/Permits*. In addition, additional discretionary and/or administrative actions will be necessary from other government agencies to fully implement the Project. Table 3-4 lists the government agencies that are expected to use the Project's EIR during their consultation and review of the Project and its implementing actions and provides a summary of the subsequent actions associated with the Project.

Table 3-4 Project Related Approvals/Permits

Public Agency	Approvals and Decisions
Proposed Project – City of Chino Discretionary Approvals	
City of Chino Planning Commission	• Approve, conditionally approve, or deny Vesting Parcel Map PL18-0119, Site Approvals PL18-0118 and PL18-0120, and Special Conditional Use Permit PL19-0011. • Recommend that the City Council approve or deny General Plan Amendment PL18-0090 and Change of Zone PL18-0091. • Recommend that the City Council reject or certify this EIR along with appropriate CEQA Findings.
City of Chino City Council	• Approve or deny General Plan Amendment PL18-0090 and Change of Zone PL18-0091. • Reject or certify this EIR along with appropriate CEQA Findings.
Subsequent City of Chino Discretionary and Ministerial Approvals	
City of Chino Implementing Approvals	• Approve Final Maps, parcel mergers, or parcel consolidations, as may be appropriate. • Approve precise site plan(s) and landscaping/irrigation plan(s), as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading/Hauling Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Approve Water and Sewer Infrastructure Plans. • Issue Encroachment Permits. • Accept public right-of-way vacations and dedications. • Approve public right-of-way vacations. • Approve Water Quality Management Plan (WQMP). • Approval of connections to the municipal water and sewer systems.
Other Agencies – Subsequent Approvals and Permits	
County of San Bernardino	• Approve off-site connection to the Cypress Channel.
Santa Ana Regional Water Quality Board (RWQCB)	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit. • Approvals of SWPPP(s) and WQMP(s).
United States Army Corps of Engineers (USACE)	• Real Estate Action related to excavations/earthwork within the Reservoir Area of the Prado Dam. • Issuance of permits for construction activities that will impact USACE-owned property or jurisdictional areas/habitats. • Issuance of required real property interests including for the off-site infrastructure storm drain line.
South Coast Air Quality Management District (SCAQMD)	• Permits and approvals associated with installation and/or acquisition of any new stationary equipment subject to SCAQMD permitting.
Southern California Edison	• Approvals required to remove power poles and to underground electrical utility lines.
Inland Empire Utilities Agency	• Approvals related to wastewater utilities connections.

4.0 Environmental Analysis

4.0.1 Summary of EIR Scope

In accordance with CEQA Guidelines §§ 15126-15126.4, EIR Subsections 4.1 through 4.14 provide analyses of potential direct, indirect, and cumulatively-considerable impacts that could occur from planning, constructing, and/or operating the proposed Project.

An Initial Study was prepared to determine the scope of environmental analysis for this EIR (refer to *Technical Appendix A*). The City of Chino made the Initial Study available on its website for review and mailed a Notice of Preparation (NOP) to public agencies and interested individuals to solicit input on the scope of study for this EIR. The City of Chino also held an EIR Scoping Meeting to solicit input from the general public on the scope of study for this EIR. Taking all known information and public comments into consideration, 14 environmental subject areas are evaluated in detail in Subsections 4.1 through 4.14, as listed below. Each subsection evaluates several specific topics related to the primary environmental subject. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the specific subject matters addressed therein.

4.1	Agriculture and Forestry Resources	4.8	Hazards and Hazardous Materials
4.2	Air Quality	4.9	Hydrology and Water Quality
4.3	Biological Resources	4.10	Land Use and Planning
4.4	Cultural Resources	4.11	Noise
4.5	Energy	4.12	Transportation
4.6	Geology and Soils	4.13	Tribal Cultural Resources
4.7	Greenhouse Gas Emissions	4.14	Utilities and Service Systems

Based on the conclusions in the Initial Study and after consideration of all comments received by the City of Chino on the scope of this EIR and documented in the City's administrative record, the City determined that the Project clearly had no potential to result in significant impacts under six (6) environmental subject areas: Aesthetics, Mineral Resources, Population and Housing, Public Services, Recreation, and Wildfire. These six (6) subjects are discussed in Section 5.0, *Other CEQA Considerations*.

4.0.2 Scope of Cumulative Effects Analysis

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines § 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines § 15130(a)(1)). As defined in CEQA Guidelines § 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines § 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation and vehicular-related air quality, greenhouse gas, and noise impacts, for which a combination of the summary of projections and the list of projects approaches are used. The analysis of cumulative transportation impacts combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects ("combined approach"). The City of Chino determined the combined approach to be appropriate because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, except for transportation (and vehicular-related air quality, greenhouse gas, and noise effects), which requires a more detailed study. The cumulative impact analyses of vehicular-related air quality, greenhouse gas, and noise impacts, which rely on data from the Project's traffic study, inherently utilize the combined approach. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and transportation issue areas overstate the potential cumulative impacts relative to analyses that rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, "worst-case" analysis for the Project's potential cumulatively considerable air quality, greenhouse gas, noise, and transportation impacts.

The list of projects used to supplement the summary of projections approach for the cumulative transportation impact analysis (as well as vehicular-related air quality, greenhouse gas, and noise impact analyses) includes known approved and pending development projects in proximity to the Project site that would contribute traffic to the same transportation facilities as the Project, as well as several large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway segments, and/or state highway system facilities as the proposed Project and have the potential to be fully operational in the foreseeable future. Accordingly, the cumulative impact analysis of transportation (and vehicular-related air quality, greenhouse gas, and noise impacts) includes the 49 other known past, present, and reasonably foreseeable projects described in Table 4.0-1, *List of Cumulative Projects*, in addition to the summary of projections.

Table 4.0-1 List of Cumulative Projects

#	Project/Location	Land Use[1]	Quantity	Units[2]
City of Chino				
C1	Bickmore Street Residential (TM 18858) (30% complete)	SFDR	185	DU
C2	TM17574 (80% complete)	Condo/Townhouse	108	DU
C3	Falloncrest at the Preserve	SFDR	210	DU
		Condo/Townhouse	786	DU
		Apartments	412	DU
		Shopping Center	77.597	TSF
		General Office	77.597	TSF
C4	Tract 19980 (Homecoming Phase 4)	Apartments	454	DU
	TTM No. 20166 & 20167	SFDR	148	DU
	Brio & TTM No. 21065 & 20168 (Orchards)	SFDR	239	DU
C5	Farmer Boys	Fast-food w/ Drive-Thru	3.218	TSF
		Shopping Center	2.300	TSF
C6	Euclid & Bickmore Warehouse	Warehousing	205.820	TSF
		General Light Industrial	51.030	TSF
		Business Park	110.620	TSF
C7	Kimball Business Park	Business Park	146.550	TSF
C8	Chaffey College Expansion	Junior/Community College	93.50	AC
	College Park Commercial	Shopping Center	7.50	AC
C9	Chino Parcel Delivery	Parcel Delivery Facility	765.274	TSF
C10	Altitude Business Centre	Warehousing	715.000	TSF
		Light Industrial	255.000	TSF
		Business Park	233.000	TSF
		Self-Storage	110.000	TSF
C11	Majestic Gateway	Specialty Retail	25.000	TSF
		Pharmacy/Drugstore with Drive-Thru	13.000	TSF
		Fast-Food with Drive-Thru	8.600	TSF
C12	Bouma Residential	SFDR	106	DU
		Condo/Townhouse	94	DU
C13	Fairfield Inn & Suites (PL 17-0060 & PL 17-0061)	Hotel	111	RM
C14	Watson Industrial Park (40% complete)	High-Cube Warehouse	3,889.900	TSF
C15	Chino Business Park	General Light Industrial	165.500	TSF
		Business Park	21.500	TSF
C16	Flores Site	Shopping Center	4.000	TSF
		Gas Station w/ convenience store	16	VFP
		Express Car Wash	5.000	TSF
C17	Brewart Residential (Stonebrook - TM 18923)	SFDR	127	DU
C18	Archibald's (PL 17-0037)	Fast-Food with Drive-Thru	3.147	TSF
C19	TM 18972 (80% complete)	SFDR	147	DU
C20	Rancho Miramonte	SFDR	691	DU
		Condo/Townhouse	132	DU
		Neighborhood Retail	21.780	TSF
		Church	400	SEAT

Table 4.0-1 List of Cumulative Projects (cont.)

#	Project/Location	Land Use[1]	Quantity	Units[2]
C21	Pines Community	SFDR	552	DU
		Public Park	3.0	AC
		Sports Park	41.8	AC
		Self-Storage & RV Storage	120.000	TSF
C22	Church	Church	47.979	TSF
		Daycare	190	STU
C23	Appesetche Residential	SFDR	60	DU
		Condo/Townhouse	160	DU
C24	Tract 19951, 19952, 19953, 19935 & 18479	SFDR	151	DU
		Condo/Townhouse	150	DU
C25	Ag. Buffer, Bungalow, Lic. Product, Liberty Deluxe, Lyon 2 & 3	SFDR	474	DU
City of Eastvale				
E1	The Merge	Warehousing	336.501	TSF
		Shopping Center	4.750	TSF
		Supermarket	30.000	TSF
		Gas Station w/ convenience store	16	VFP
		Pharmacy/Drugstore with Drive-Thru	14.600	TSF
		Fast-Food with Drive-Thru	6.000	TSF
		Automated Car Wash	4.000	TSF
		Fast-Food Without Drive-Thru	7.750	TSF
		Coffee/Donut Shop With Drive-Thru	2.500	TSF
E2	TR29997	SFDR	122	DU
E3	13-0632 - Sumner Residential (Stratham Homes)	SFDR	129	DU
E4	TR35751	Condo/Townhouse	243	DU
E5	PP23219 (PM35865) (50% complete)	General Light Industrial	738.430	TSF
E6	Eastvale Shopping Center	Free-Standing Discount Superstore	192.000	TSF
		Specialty Retail	9.200	TSF
		Fast-Food Without Drive-Thru	7.200	TSF
		Coffee/Donut Shop w/ Drive Thru	2.000	TSF
		Fast-Food with Drive-Thru	3.500	TSF
		Gas Station w/ convenience store and car wash	16	VFP
E7	Van Leeuwen	SFDR	224	DU
E8	SP00358 - The Ranch at Eastvale	Shopping Center	267.200	TSF
		General Light Industrial	801.500	TSF
		Business Park	1,121.100	TSF
E9	SC Limonite, LLC	SFDR	330	TSF
City of Ontario				
O1	Parkside	SFDR	437	DU
		Multi-Family Attached (Apartments)	1,510	DU
		Shopping Center	115.000	TSF
O2	Subarea 29 & Amendment (40% complete)	SFDR	2,149	DU
		Shopping Center	87.000	TSF
O3	Colony Commerce West	High-Cube Warehouse	2213.360	TSF
		Manufacturing	737.786	TSF
O4	West Ontario Commerce Center SP	High-Cube Warehouse	1976.535	TSF
		Manufacturing	658.845	TSF
		Business Park	548.856	TSF

Table 4.0-1 List of Cumulative Projects (cont.)

#	Project/Location	Land Use[1]	Quantity	Units[2]
O5	Colony Commerce East	High-Cube Warehouse	998.680	TSF
		Manufacturing	233.129	TSF
		Warehousing	699.387	TSF
O6	Merrill Commerce Center	High-Cube Fulfillment Warehouse	7014.000	TSF
		Business Park	1441.000	TSF
O7	Parente Home Ranch SP	SFDR	270	DU
		Condo/Townhouse	1,872	DU
		General Office	462.281	TSF
		Shopping Center	194.278	TSF
O8	Ontario Ranch Commerce Center	High-Cube Cold Storage Warehouse	1159.200	TSF
		Warehousing	337.600	TSF
		Business Park	290.200	TSF
City of Chino Hills				
CH1	Vila Borba Specific Plan (TR 16414)	SFDR	172	DU
CH2	Country Club Villas	Condo/Townhouse	46	DU
CH3	Crossings at Chino Hills	Apartments	346	DU
CH4	The Goddard School	Daycare	10.587	TSF
CH5	Indus Light Industrial	General Light Industrial	100.330	TSF
CH6	The Santa Barbara	Condo/Townhouse - Low Rise	138	DU
		Condo/Townhouse - Mid Rise	186	DU
		Shopping Center	15.700	TSF
CH7	Heritage Professional Center	Hospital	55.000	TSF
		Medical Office Building	86.952	TSF
		Hotel	120	RM
		Shopping Center	38.848	TSF
		Restaurant	7.200	TSF

[1]SFDR = Single Family Detached Residential
[2]TSF = Thousand Square Feet; DU = Dwelling Unit; VFP = Vehicle Fueling Position; AC = Acres
[3]Source:(Urban Crossroads, 2019f, Table 4-3)

For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of transportation and vehicular-related air quality, greenhouse gas, and noise – as described in the preceding pages), the cumulative study area primarily includes the City of Chino, City of Eastvale, City of Ontario, and City of Chino Hills. These four cities encompass portions of southwestern San Bernardino County and northwestern Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the upper Chino Valley, which is largely bounded by the Chino Hills to the west, Interstate 15 to the east, the Prado Dam and the Santa Ana River to the south and southeast, and State Route 60 to the north. This area has historically featured rural, commercial dairy, and/or other agricultural uses; but, in recent decades has transitioned to residential and industrial development. This study area exhibits similar characteristics in terms of climate, geology, and hydrology and, therefore, is also likely to have similar biological and archaeological characteristics as well. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable. Exceptions include cumulative air quality analysis, which considers the entire South Coast Air Basin (SCAB) and greenhouse gas emissions and associated global climate change, which

potentially affect all areas of planet Earth. Additionally, the analysis of cumulative hydrology and water quality effects considers cumulative growth within the boundary of the Santa Ana River Basin watershed.

Environmental impacts associated with buildout of the Project cumulative study area were evaluated in CEQA compliance documents prepared for the respective General Plans of each of the above-named jurisdictions. The location where each of these CEQA compliance documents is available for review is provided below. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to CEQA Guidelines § 15150.

- City of Chino General Plan EIR (SCH No. 2008091064), available for review at the City of Chino Community Development Department, Planning Division, 13220 Central Avenue, Chino, CA 91710;
- City of Chino Hills General Plan EIR (SCH No. 2013051082), available for review at City of Chino Hills Community Development Department, 14000 City Center Drive, Chino Hills, CA 91709;
- City of Eastvale General Plan EIR (SCH No. 2011111061), available for review at the City of Eastvale Planning Department, 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752; and
- The Ontario Plan EIR (SCH No. 2008101140), available at the City of Ontario Planning Department, 303 East B Street, Ontario, California.

4.0.3 Identification of Impacts

Subsections 4.1 through 4.14 of this EIR evaluate potential Project-related impacts to the 14 environmental subjects identified by the City of Chino for analysis through the CEQA environmental scoping process. The format of discussion is standardized as much as possible in each subsection for ease of review. The environmental setting is discussed first, followed by a discussion of the potential environmental impacts that would result from implementation of the Project (which is based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant).

The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Chino. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, the City of Chino is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the independent judgment of the City of Chino, taking into consideration CEQA Guidelines Appendix G, the City of Chino General Plan, the City of Chino's Municipal Code and adopted City policies, the judgment of the technical experts that prepared this EIR's Technical Appendices, performance standards adopted, implemented, and monitored by regulatory agencies, and significance standards recommended by regulatory agencies.

As required by CEQA Guidelines § 15126.2(a), Project-related effects on the environment are characterized in this EIR as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts. A

summarized "impact statement" is provided in each subsection following the analysis. Each subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project Applicant or its successor in interest are required to comply with during construction and operation of the Project. If impacts are identified as significant after mandatory compliance with all applicable regulatory criteria, feasible mitigation measures are presented with proportional nexus to the Project's impacts that would either avoid the impact or reduce the magnitude of the impact. For any impact identified as significant and unavoidable, the City of Chino would be required to adopt a statement of overriding considerations separate from this EIR pursuant to CEQA Guidelines § 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 AGRICULTURE AND FORESTRY RESOURCES

The following analysis is based primarily on information obtained from the United States Department of Agriculture (USDA), the California Department of Conservation (CDC), the County of San Bernardino, the City of Chino General Plan, and a report titled "Agricultural Resources Assessment for the Majestic Chino Heritage Project," dated March 22, 2019, and prepared by T&B Planning, Inc. (see *Technical Appendix B*). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.1.1 EXISTING CONDITIONS

A. Agricultural Resources

1. Regional Agricultural Setting

The City of Chino and the larger San Bernardino County have been used for agriculture activity for many decades (row crops, orchards, and dairy/livestock). According to the San Bernardino County Department of Agriculture (SBCDA) *2017 Crop Report*, the total production value for the "West End South" region of San Bernardino County, which includes the cities of Chino, Chino Hills, and part of Ontario, was estimated at approximately $366 million in 2017, which represents over three quarters (78.3%) of the total gross value of agricultural production in San Bernardino County for that year. The livestock and poultry commodity group, which includes milk, eggs, and chicken, accounted for 82.1% of the production value in the "West End South" region, and almost two-thirds (64.7%) of the production value for the County. In 2017, the total gross value of agriculture production in San Bernardino County totaled approximately $465 million which represented an increase of approximately $8 million from the prior year; the increase was primarily due to a higher value received for milk, an increase in the sales of ornamental nursery stock, and an increase in both the price and the number of eggs produced in the County. However, the total acreage in agricultural production in 2017 declined relative to prior years as producers sold their land for other uses. (SBCDA, 2017, pp. 1, 9) Within the "West End South" region, milk production was almost halved, the number of dairies reduced from 86 to 56, and total acres of field crops in production fell substantially from 22,237 acres to 7,851 acres between 2012 and 2017. (SBCDA, 2012, p. 2; SBCDA, 2017, p. 10)

According to the City of Chino General Plan, the decline of agricultural production in San Bernardino County is expected to continue as the region becomes more urbanized (Chino, 2010a, OSC-8). The economic challenges facing the agriculture industry in the Inland Empire area also are well documented in a report titled *Assessing the Economic and Market Trends Affecting Agriculture in the Western Inland Empire*, prepared by Chang & Adams Consulting (Chang, 2011).

The CDC reports that agricultural lands face continuing pressure from urbanization, foreign competition, and rising production costs. According to the CDC's "California Farmland Conversion Report, 2015," San Bernardino County as a whole experienced a net loss of 840 acres of "Important Farmland" between 2010 and 2012, representing a decline of 3.7% over that two-year time period (CDC, 2015, Table A-28). ("Important Farmlands" include Prime Farmland, Statewide Important Farmland, Unique Farmland, and Farmland of Local Importance; refer to "*Farmland Classification Designations*" later in this Subsection for a description of each farmland type.) During the prior reporting period (capturing the years between 2008 and

2010), the amount of "Important Farmland" lost in San Bernardino County was even more substantial – a net loss of 2,565 acres – which represented a 10.1% decline (CDC, 2014, Table A-28).

2. Local Agricultural Setting

Under existing conditions, the Project Site is vacant and undeveloped, but was previously used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. Dairy operations on the Project Site ceased between 2013 and 2014; all structures associated with the former dairy operations have since been demolished.

The area surrounding the Project Site is at the tail end of the transitioning process from commercial dairy land uses to employment-generating land uses. As late as 2003, property to the north, northwest, and east of the Project Site all were under agricultural/dairy production; today these properties are occupied by large industrial/warehouse buildings (Google Earth Pro, 2019). Property located south and west of the Project Site are occupied by the Butterfield Stage Course of the El Prado Golf Course facility.

3. Agriculture Productivity Potential

A property's agricultural productivity potential is primarily determined by the quality of the site's soils. High-quality, productive soils have a higher likelihood to correspond with an important agricultural resource than do low-quality soils. The soil types on the Project Site and excess fill dirt sites, and their respective agricultural productivity rankings, are discussed on the following pages.

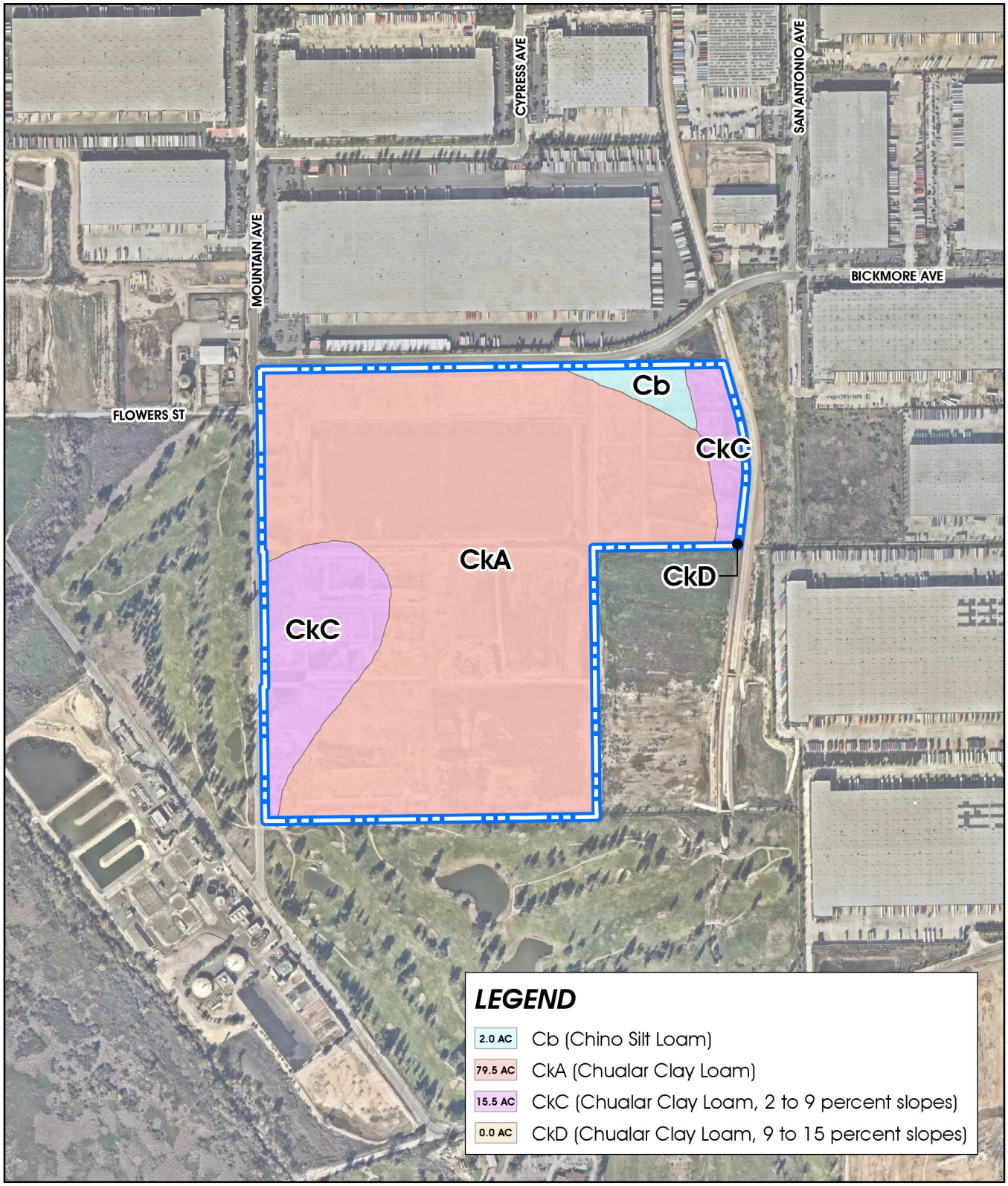
❑ Soil Types

Figure 4.1-1 through Figure 4.1-6 illustrate the distribution of soils across the Project Site and Excess Fill Dirt Sites Nos. 1 through 5 using mapping symbols that correspond to the United States Department of Agriculture (USDA) soil series classifications. Provided below is a description of all the types of soils found on the Project Site and Excess Fill Dirt Sites Nos. 1 through 5 (USDA, n.d.).

Cb – Chino Silt Loam. Chino silt loam (Cb) is characterized as somewhat poorly drained and permeability is moderately slow. Cb soils are, generally, found on basin floors and flood plains with 0 to 2 percent slopes and have severe limitations for crop production because it is shallow, droughty, and/or stony. This soil type is found on the Project Site and Excess Fill Dirt Sites Nos. 1, 2, and 5.

CkA – Chualar Clay Loam. Chualar clay loam (CkA) consists of well drained, alluvium soil found on areas with slopes ranging from 0 to 2 percent. This soil type has moderate limitations that could limit the choice of plants (or require special practices) and this soil is limited by Chino's very dry climate. This soil type is found on the Project Site and Excess Fill Dirt Sites Nos. 3 and 4.

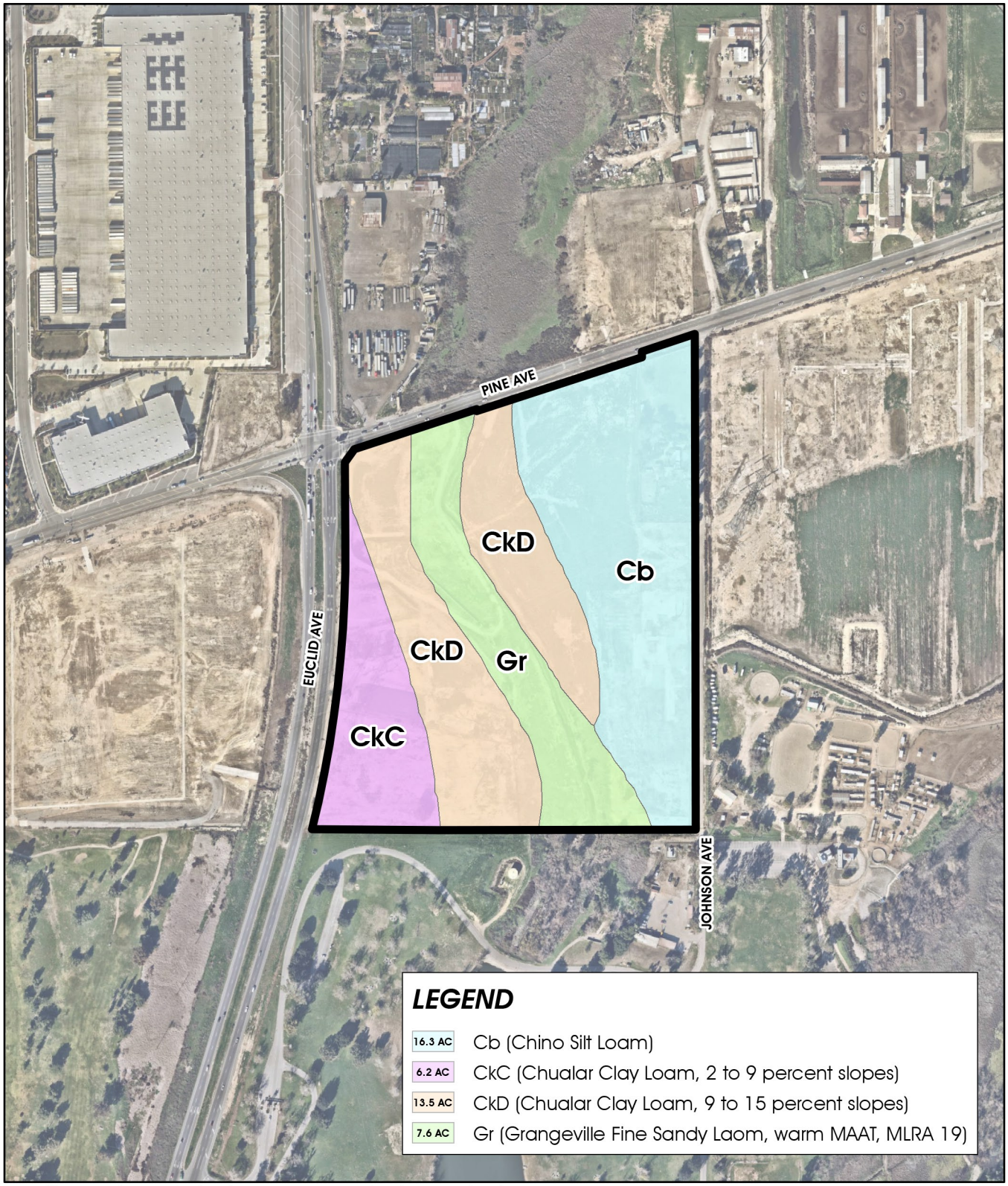
CkC – Chualar Clay Loam. Chualar clay loam (CkC) consists of well drained, mixed alluvium soil found on areas with slopes ranging from 2 to 9 percent. This soil type has moderate limitations that could limit the choice of plants (or require special practices) and contains a risk for erosion. This soil type is found on the Project Site and Excess Fill Dirt Sites Nos. 1, 3, 4, and 5.



Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

Figure 4.1-1

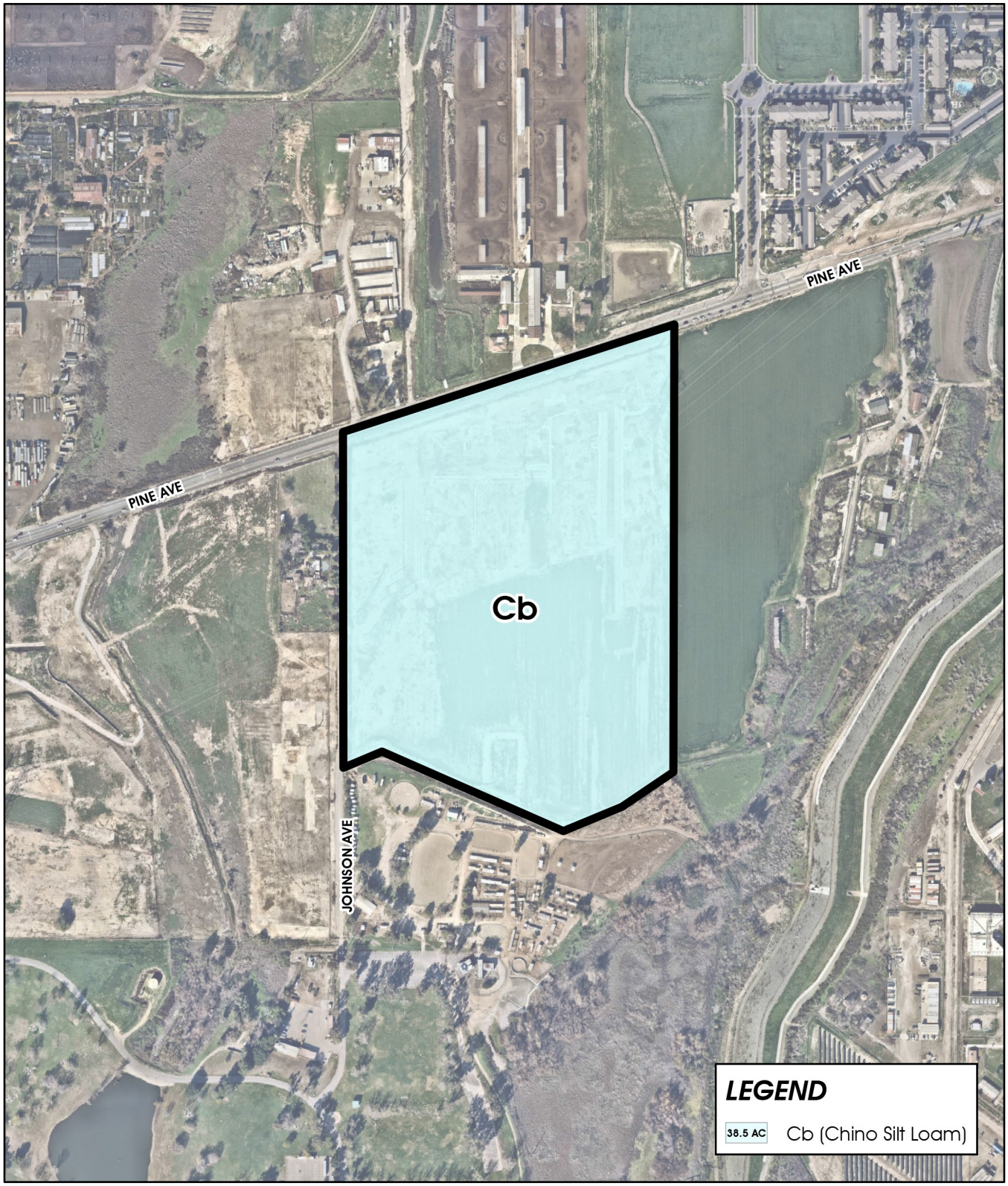
SOILS MAP - PROJECT SITE



Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

Figure 4.1-2

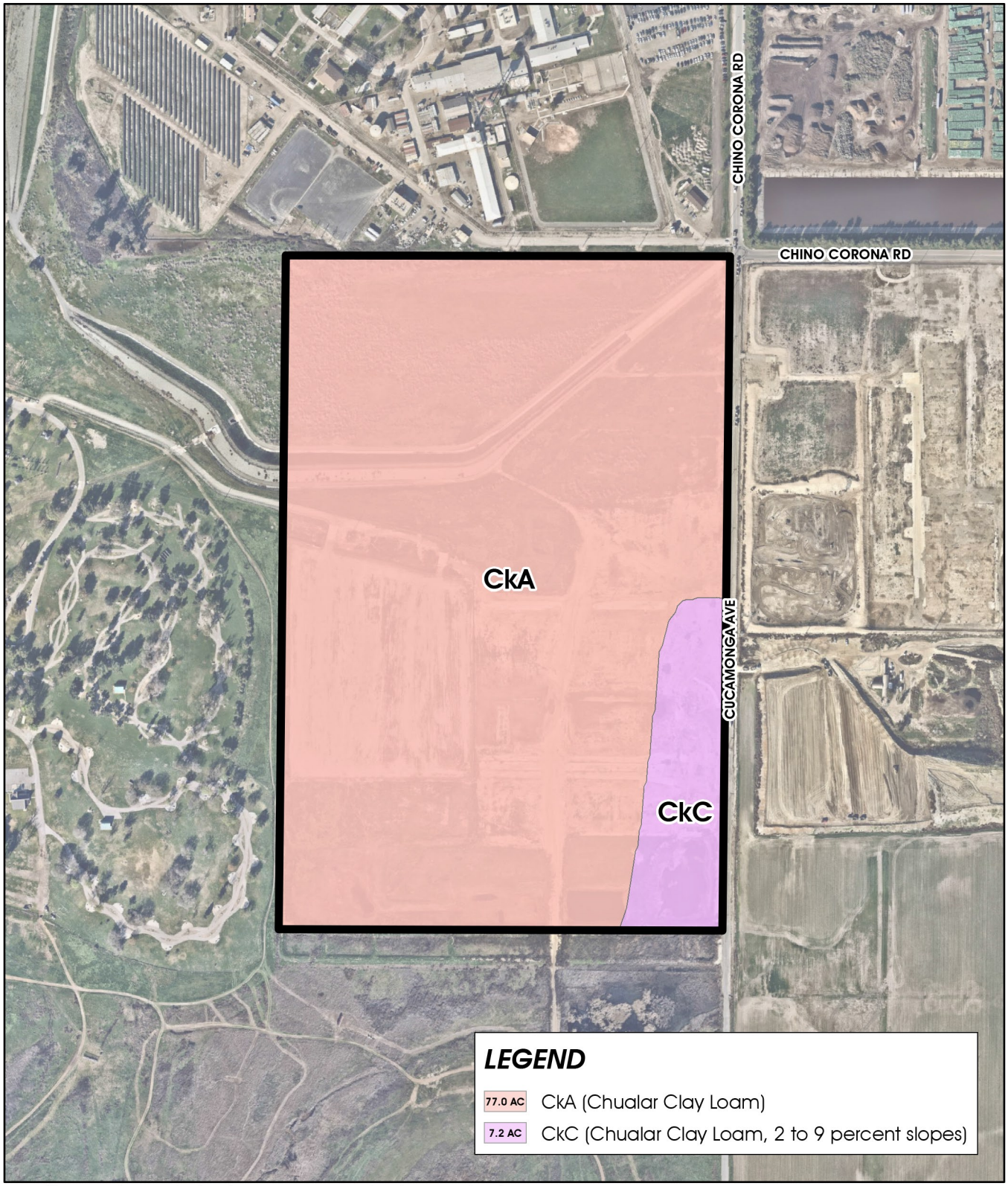
SOILS MAP - EXCESS FILL DIRT SITE NO. 1



Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

Figure 4.1-3

SOILS MAP - EXCESS FILL DIRT SITE NO. 2

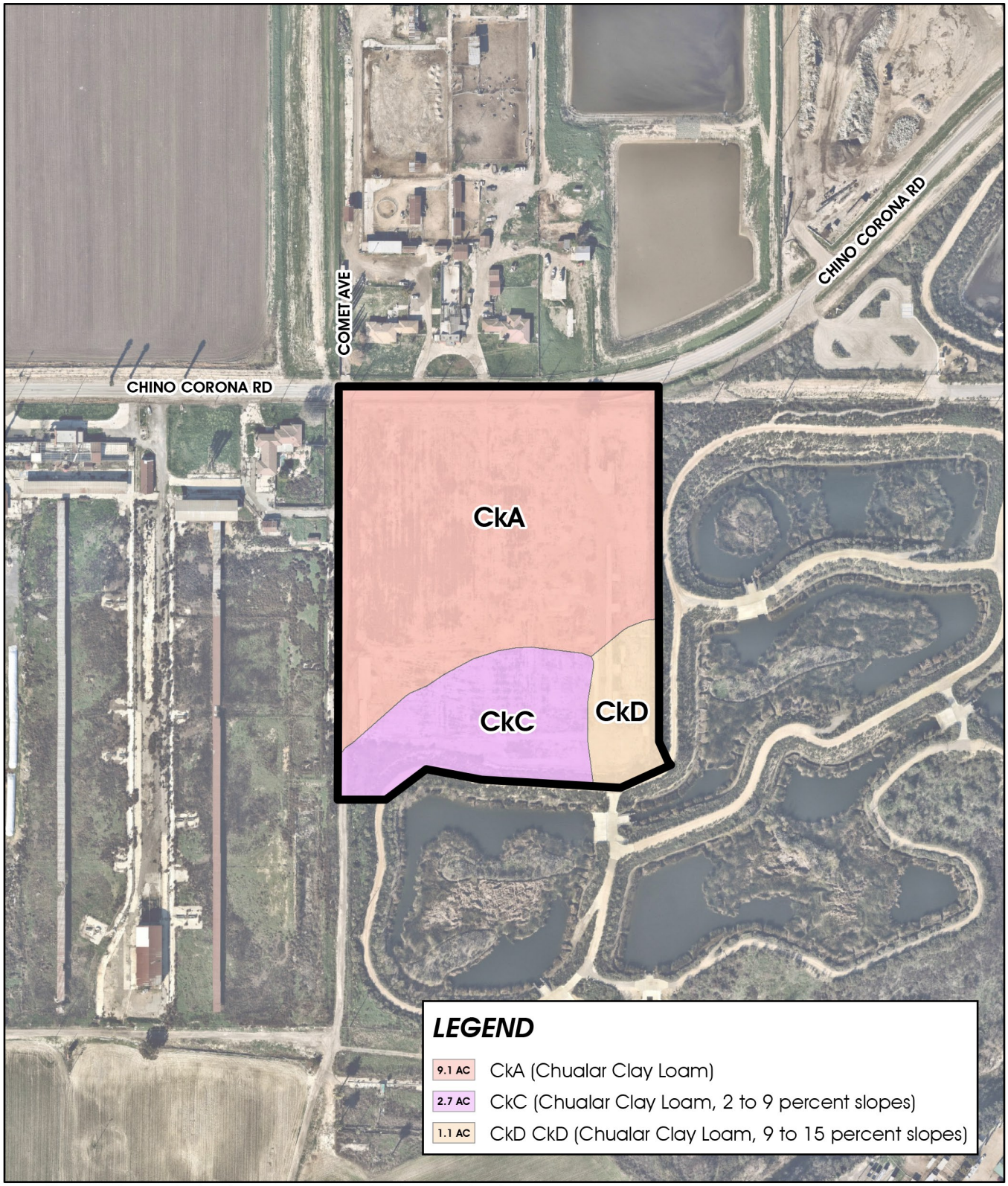


Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

0 125 250 500 Feet

Figure 4.1-4

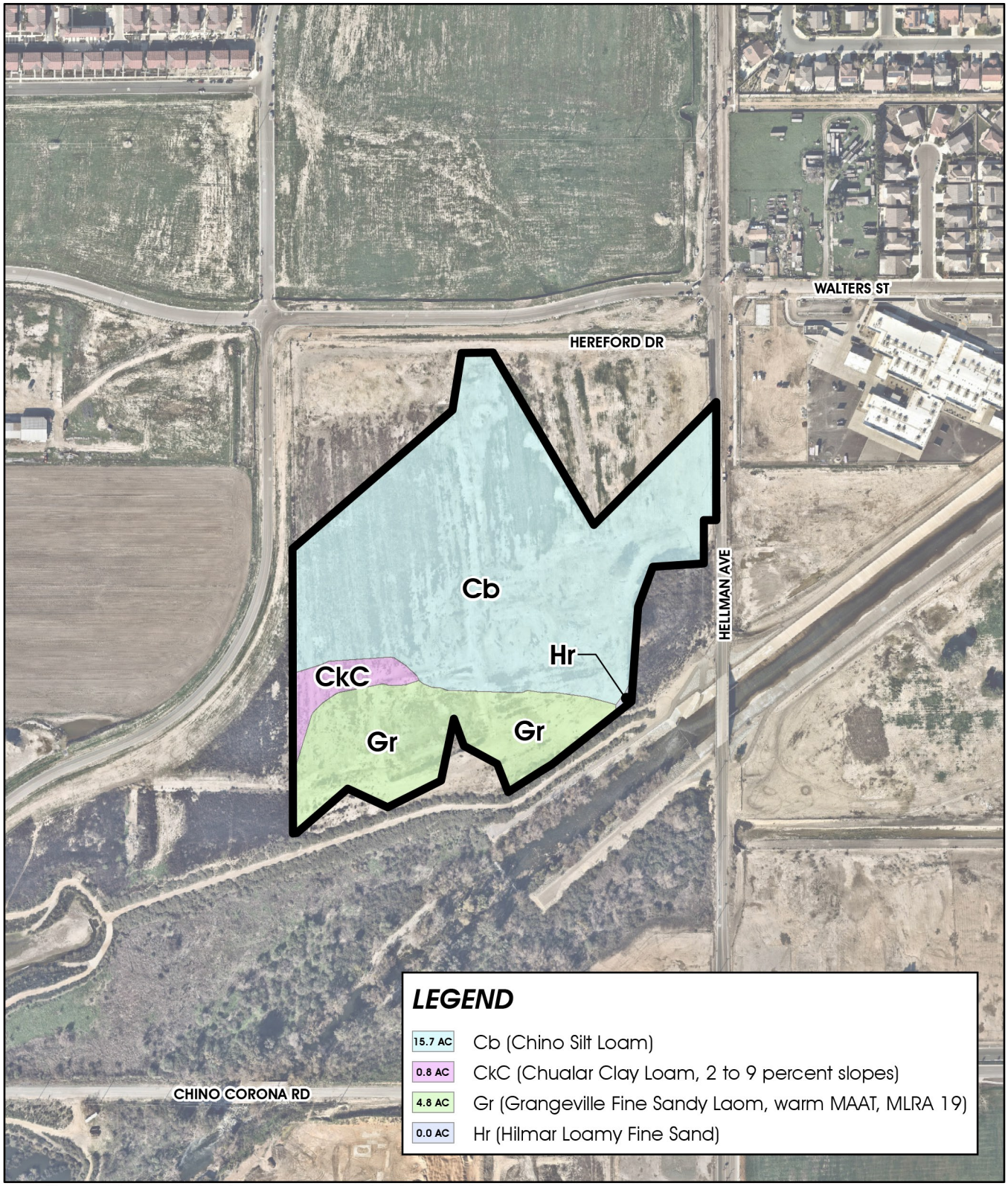
SOILS MAP - EXCESS FILL DIRT SITE NO. 3



Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

Figure 4.1-5

SOILS MAP - EXCESS FILL DIRT SITE NO. 4



Source(s): CA Dept. of Conservation (2016), ESRI, Nearmap Imagery (2019), SB County (2019)

Figure 4.1-6

SOILS MAP - EXCESS FILL DIRT SITE NO. 5

CkD – Chualar Clay Loam. Chualar clay loam (CkD) consists of well drained, alluvium soil found on areas with slopes ranging from 9 to 15 percent. This soil type has moderate limitations that could limit the choice of plants (or require special practices) and contains a risk for erosion. This soil type is found on the Project Site and Excess Fill Dirt Site Nos. 1 and 4.

Gr – Grangeville Fine Sandy Loam. Grangeville fine sandy loam (Gr) is characterized as somewhat poorly drained and water movement in the most restrictive layer is high and is found on alluvial fans with 0 to 2 percent slopes. Plants that can be planted in the soil type are limited (or require special practices) and this soil is limited by Chino's very dry climate. This soil type is found on Excess Fill Dirt Site Nos. 1 and 5.

Hr – Hilmar Loamy Fine Sand. Hilmar loamy fine sand is found within alluvial fans and alluvial plains with 0 to 2 percent slopes. Hilmar Loamy Fine Sand soils are somewhat poorly drained and water movement in the most restrictive layer is moderately low. This soil type has severe limitations for crop production because it is shallow, droughty, and/or stony. This soil type is found on Excess Fill Dirt Site No. 5.

❑ Storie Index

The Storie Index is a rating system first developed by R. Earl Storie in 1933 that determines the value of farmland by evaluating the soil type on a given property. The Storie Index rating system ranks each soil according to four general factors: 1) the characteristics of the soil profile and its depth; 2) the texture of the surface soil; 3) the slope of the land on which the soil is located; and 4) other factors, including drainage, salt content, erosion, and alkali. A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. Soils are graded according to their index on a scale of 1 through 6. (University of California, 1978, p. 1)

Soils of Grade 1 (excellent) rate between 80 and 100 percent and have few or no limitations that restrict their use for crops. Soils of Grade 2 (good) rate between 60 and 79 percent and have few special management needs and are suitable for most crops, but they have minor limitations that narrow the choice of crops. Grade 3 (fair) soils rate between 40 and 59 percent and are suited to a few crops or to special crops and require special management. Grade 4 (poor) soils rate between 20 and 39 percent and are severely limited for crops, and if used, it requires careful management. Grade 4 (poor) soils rate between 20 and 39 percent and are severely limited for crops, and if used, it requires careful management. Grade 5 (very poor) soils rate between 10 and 19 percent and generally are not suited to cultivated crops but can be used for pasture and range. Grade 6 (nonagricultural) consists of soils and land types that rate less than 10 percent and generally are not suited to farming. (University of California, 1978, p. 3)

The Storie Index rating for the soils found on the Project Site and the excess fill dirt sites are presented on Table 4.1-1, *Soils Summary*.

Table 4.1-1 Soils Summary

Soil Map Unit	Acreage	Proportion of Site	Storie Index Rating Percent	LCC
Project Site				
Cb	2.2	0.02	69.7	IIIe
CkA	79.5	0.82	89.6	IIIc
CkC	15.5	0.16	85.8	IIIe
CkD	0.0	0.00	78.5	IIIe
Excess Fill Dirt Site No. 1				
Cb	16.3	0.37	69.7	IIIe
CkC	6.2	0.14	85.8	IIIe
CkD	13.5	0.31	78.5	IIIe
Gr	7.6	0.17	64.9	IIIc
Excess Fill Dirt Site No. 2				
Cb	38.5	1.00	69.7	IIIe
Excess Fill Dirt Site No. 3				
CkA	77.0	0.91	89.6	IIIc
CkC	7.2	0.09	85.8	IIIe
Excess Fill Dirt Site No. 4				
CkA	9.1	0.71	89.6	IIIc
CkC	2.7	0.21	85.8	IIIe
CkD	1.1	0.08	78.5	IIIe
Excess Fill Dirt Site No. 5				
Cb	15.7	0.74	69.7	IIIe
CkC	0.8	0.04	85.8	IIIe
Gr	4.8	0.22	64.9	IIIc
Hr	0.0	0.02	53.6	IIIw

Source: (T&B Planning, 2019, Table 4-1 and Table 4-2)

❑ Land Capability Classification

Similar to the Storie Index, the Land Capability Classification (LCC) is used to determine the soil's suitability for crop production. The LCC includes eight (8) classes identified as "I" through "VII," with soils designated as "I" being the most suitable for crop production. Additionally, the LCC includes four subclasses to identify the soil's limitation, including susceptibility to erosion ("e") and limitations due to water ("w"), shallow/stony soils ("s"), or climate ("c"). (USDA, n.d.)

The LCC rating for the soils found on the Project Site and the excess fill dirt sites are presented on Table 4.1-1, *Soils Summary*. All soils found on the Project Site and excess fill dirt sites are within Class III, which indicates severe limitations to these soils that reduce the choice of plants, require special conservation practices, or both (USDA, 1961, p. 7).

B. Forestry Resources

Neither the Project Site nor Excess Fill Dirt Sites Nos. 1 through 5 contain forest land or any vegetation communities associated with forest land (GLA, 2019, pp. 23-28).

4.1.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the State and local environmental laws and related regulations governing the protection of agriculture and forestry resources.

A. State Plans, Policies, and Regulations

1. California Land Conservation Act (CLCA)

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, *et seq.*), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Pursuant to Government Code § 51230, counties and cities may establish Agricultural Preserves, which define boundaries of those areas within which the city or county will be willing to enter into contracts pursuant to the CLCA. Contracts pursuant to the CLCA only are allowed for areas within established Agricultural Preserves. Agricultural Preserves generally must be at least 100 acres in size; however, a city or county may allow for lesser acreage if a finding is made that the characteristics of the agricultural enterprises in the area are unique and that the establishment of preserves of less than 100 acres is consistent with the general plan of the county or city. Once established, land uses within an Agricultural Preserve must be agricultural in nature, or other such uses that are not incompatible with agricultural uses. For parcels within Agricultural Preserves, individual land owners may enter into a Contract with a county or city that would provide for the exclusion of uses other than agriculture, and other than those compatible with agriculture uses, for the duration of the Contract, even if the land is sold to a new owner. In return for entering into a Contract, the landowner is granted preferential property taxes that are based upon agricultural and related land uses rather than fair market value. Contracts may be exited at the option of the landowner or local government by initiating the nonrenewal process. Under the nonrenewal process, the remaining contract term (typically nine years) is allowed to lapse, with the contract null and void at the end of the term. During the nonrenewal process, the annual property tax assessment increases slightly each year until it is equivalent to the full tax rate (based on market value) at the end of the nonrenewal period. Under a set of specifically defined circumstances, a Contract may be cancelled without completing the process of term nonrenewal. Contract cancellation, however, involves a comprehensive review and approval process and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. (CDC, 2019; CA Legislative Information, 2001; CA Legislative Information, 2000)

The Project Site is not subject to an active Williamson Act contract. A portion of the Project Site was subject to former Williamson Act Contract #72-386; however, Williamson Act Contract #72-386 is considered null and void and has satisfied the requirements set forth in Government Code Section 51295 (CDC, 2018; Chino, 2017c).

Excess Fill Dirt Sites Nos. 1 and 3 contain lands subject to a Williamson Act Contract. Specifically, Excess Fill Dirt Site No. 1 is subject to Williamson Act Contract #75-481 and Excess Fill Dirt Site No. 3 is subject

to Williamson Act Contracts #68-100 and #78-544 (Chino, 2017c). Excess Fill Dirt Sites Nos. 1 and 3 are not used for agricultural purposes under existing conditions.

2. Farmland Mapping and Monitoring Program (FMMP)

The goal of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) is to provide consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, FMMP's objective is to provide maps and statistical data to the public, academia, and local, State, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in 1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. Government Code § 65570 mandates FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and provides maps and data to local government and the public. The FMMP also was directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that FMMP be non-regulatory, and provides a consistent and impartial analysis of agricultural land use and change in California. With this in mind, FMMP provides basic data from which observations and analyses can be made in the land use planning process. (CDC, 2004, p. 3)

Pursuant to the FMMP, all lands within California are classified into one of seven map categories. The minimum mapping unit is generally 10 acres, except as otherwise noted (CDC, 2004, p. 6). Provided below is a description of the various map categories established by the FMMP:

- **Prime Farmland:** Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Statewide Importance:** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Unique Farmland:** Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Local Importance:** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. (CDC, 2004, p. 6)

- **Grazing Land:** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of

California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. (CDC, 2004, p. 6)

- **Urban and Built-Up Land:** 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. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. (CDC, 2004, p. 6)

- **Other Land:** 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 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. (CDC, 2004, p. 6)

As shown on Figure 4.1-7, *FMMP Farmlands Map*, the Project Site contains "Prime Farmland," "Grazing Land," and "Other Land," and Excess Fill Dirt Site Nos. 1 through 5 contain land classified as "Grazing Land" and "Other Land" (CDC, n.d.). According to the CDC, to be eligible for a "Prime Farmland" rating, land must contain soils that possess specified characteristics and land must have been used for irrigated agricultural production at some time during the four (4) years prior to the date of the relevant Important Farmland Map (CDC, 2019). The most recent Important Farmland Map for San Bernardino County was published in 2017 (CDC, 2017). The Project Site was formerly used for commercial dairy farming and no portion of the Project Site – including the 1.6-acre on-site area mapped as "Prime Farmland" by the CDC – has been used for irrigated agricultural production since at least 1994 (Google Earth Pro, 2019). Thus, although the Project Site contains land that is mapped by the CDC as "Prime Farmland," this area does not meet the State's definition of "Prime Farmland" because it has not recently been used for irrigated agricultural production.

B. Local Plans, Policies, and Regulations

1. City of Chino "Right to Farm" Ordinance

Chapter 20.16 of the City of Chino's Municipal Code is the City's "Right-to-Farm" Ordinance, which states that no existing agricultural uses shall become a nuisance due to any changed condition in the surrounding area, and requires future owners of land near or adjacent to agricultural uses to be notified of all surrounding agricultural activities. This policy applies to "all legal agricultural operations within the agricultural overlay district, and other legally established agricultural operations existing at the time the property was annexed to the City of Chino." (Chino, 2019, Chapter 20.16)

4.1.3 Basis for Determining Significance

The proposed Project would result in a significant impact to agriculture and forestry resources if the Project or any Project-related component would:

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 contract;*

c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));*

d. *Result in the loss of forest land or conversion of forest land to non-forest use; or*

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.*

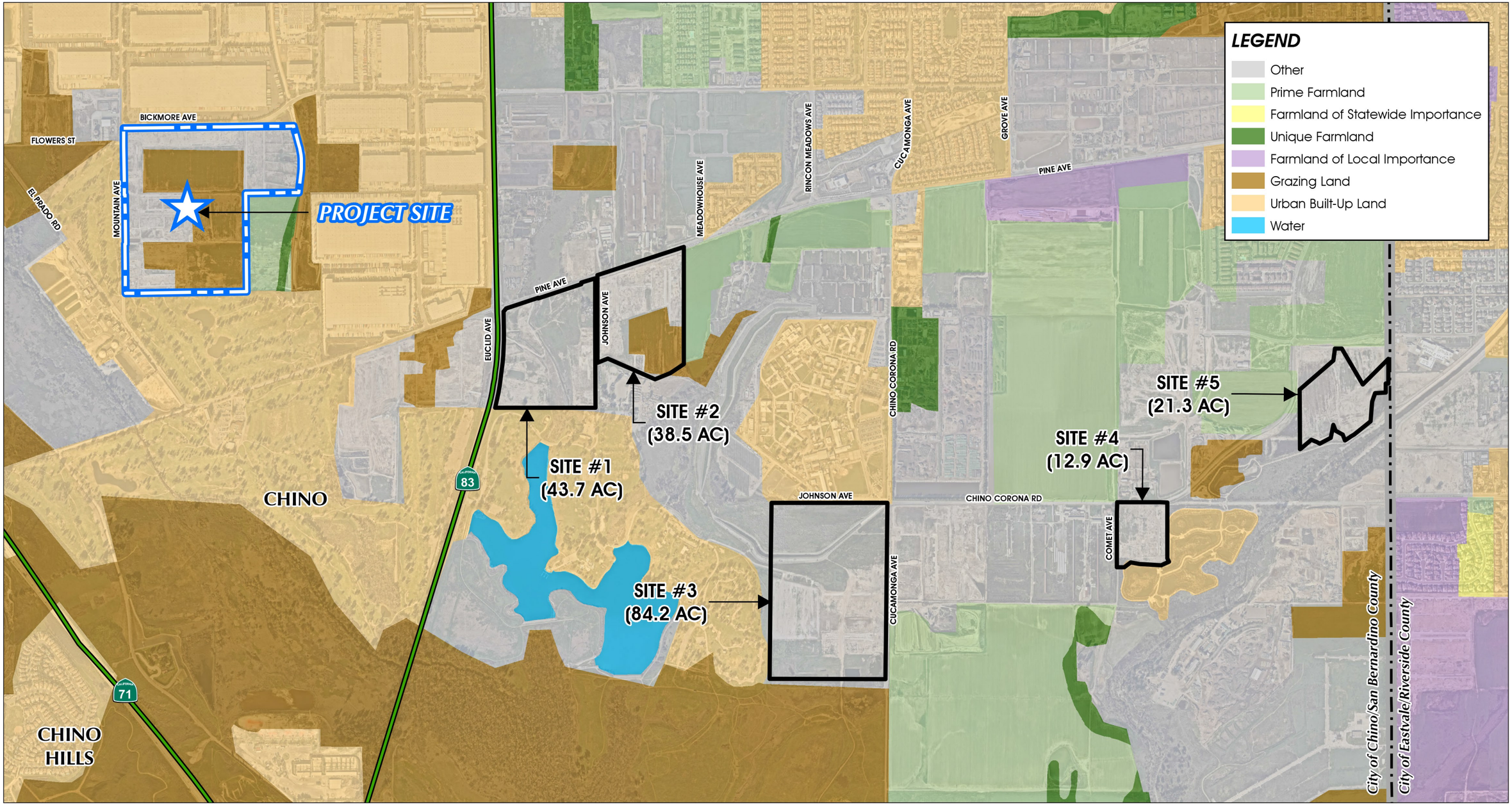
The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to agriculture and forestry resources that could result from development projects.

The determination regarding the significance of converting agriculturally zoned land under Threshold "b" will be based on the CDC's Land Evaluation and Site Assessment (LESA) model. The LESA Model is a point-based approach that uses measurable factors to quantify the relative value of agricultural land resources to ultimately determine the significance of agricultural land conversions during the CEQA process. The LESA Model considers two sets of factors: "Land Evaluation" (LE), which evaluates soil quality/productivity, and "Site Assessment" (SA), which measures the social, economic, and geographic components that contribute to the overall value of agricultural land. The LE and SA are scored and weighted separately to yield a total LESA score. (CDC, 1997, p. 1) The LESA model is described in detail in *Technical Appendix B* to this EIR. The total LESA score is evaluated against the scoring thresholds summarized in 4.1.3, below, to determine the significance of a project's impacts to farmland resources.

Table 4.1-2 California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39	Not Considered Significant
40 to 59	Considered Significant only if LE and SA subscores are greater than or equal to 20 points
60 to 79	Considered Significant unless either LE or SA subscore is less than 20 points
80 to 100	Considered Significant

Source: (CDC, 1997, p. 29)



Source(s): CA Dept. of Conservation (2016), ESRI, SBCTA (2018)

0 325 650 1,300 Feet

Figure 4.1-7

FMMP FARMLANDS MAP

4.1.4 IMPACT ANALYSIS

Threshold a: Would the Project convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?

Approximately 1.6 acres of the Project Site is mapped as "Prime Farmland" by the CDC. However, as noted earlier in this Subsection (see 4.1.2A.2), the 1.6 acres mapped as "Prime Farmland" does not meet the CDC's definition of "Prime Farmland" because it has not been used for irrigated agricultural production within the last four years. Accordingly, the conversion of the Project Site from a former commercial dairy to a non-agricultural (i.e., industrial) use would not affect any land that meets the CDC's definition of Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Implementation of the Project would result in a less-than-significant impact.

Excess Fill Dirt Sites Nos. 1 through 5 are comprised of land mapped as "Other Land" and "Grazing Land" (CDC, n.d.). Therefore, implementation of the Project would result in no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance at Excess Fill Dirt Sites Nos. 1 through 5.

Threshold b: Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

According to the City of Chino Zoning Map, the Project Site is zoned "General Agriculture" (AG) and "Open Space-Natural" (OS-2) within an "Airport Overlay District" for the Chino Airport. The excess fill dirt sites are located within The Preserve Specific Plan and wholly or partly within an "Airport Overlay District" for the Chino Airport, with the following zoning designations: Excess Fill Dirt Site No. 1 is zoned as "Open Space Recreational (OS-R)" and "Open Space Natural (OS-N);" Excess Fill Dirt Site No. 2 is zoned as "OS-R" and "Estate Residential (ER);" Excess Fill Dirt Site No. 3 is zoned as "OS-R," "Agricultural and Open Space Natural (AG/OS-N)," and "OS-N;" Excess Fill Dirt Site No. 4 is zoned as "OS-R" and "AG/OS-N;" and Excess Fill Dirt Site No. 5 is zoned as "ER," "OS-R," and "AG/OS-N." There is no proposed change to the existing zoning designations for the excess fill dirt sites or the off-site improvement areas.

Excess Fill Dirt Site Nos. 1 and 2 are not zoned for agricultural use; therefore, the Project would have no potential to conflict with agricultural zoning at these sites.

The Project Site and Excess Fill Dirt Site Nos. 3, 4, and 5 contain land zoned for agricultural uses; however, these properties are not used for agriculture or dairy production under existing conditions. Implementation of the Project would conflict with existing agricultural zoning because the Project entails a proposed change the Project Site's zoning designation from "General Agriculture" (AG) and "Open Space-Natural" (OS-2) to "General Industrial (M2)." Implementation of the Project would not alter the zoning designations for Excess Fill Dirt Site Nos. 3, 4, and 5 and would not introduce any new, permanent uses to these excess fill dirt sites that would preclude the long-term use of these of these properties for agricultural production; however, agriculture uses could not be established on Excess Fill Dirt Site Nos. 3, 4, and/or 5 during the temporary soil

excavation and export activities that could potentially occur on these sites as part of Project construction. Although the Project would temporarily prevent the establishment of agricultural uses on Excess Fill Dirt Site Nos. 3, 4, and/or 5 during soil excavation and exporting activities, soil excavation activities would not constitute a conflict with agricultural zoning because soil excavation and export is permitted on agriculturally zoned properties and these activities would not preclude the future use of the Excess Fill Dirt Site Nos. 3, 4, and/or 5 for uses allowed by the properties' existing "OS-R," "AG/OS-N," "OS-N;" and "ER" zoning designations.

As noted earlier in this Subsection (see 4.1.2A.2), the Project Site and Excess Fill Dirt Site Nos. 2, 4, and 5 are not subject to Williamson Act Contract; therefore, implementation of the Project would not result in a conflict with a Williamson Act Contract at any of the aforementioned properties.

Excess Fill Dirt Site No. 1 is subject to Williamson Act Contract #75-481 and Excess Fill Dirt Site No. 3 is subject to active Williamson Act Contracts #68-100 and #78-544. Implementation of the Project would not preclude Excess Fill Dirt Site Nos. 1 and/or 3 from being used for agriculture following the completion of temporary soil excavation and export activities that could potentially occur on these sites as part of Project construction. Although the Project would temporarily prevent the establishment of agricultural uses on Excess Fill Dirt Site Nos. 1 and 3 during soil excavation and exporting activities, soil excavation activities would not constitute a conflict with the Williamson Act Contracts because soil excavation and export is permitted on lands under Contract and the properties would continue to have long-term productive agricultural capability. California Government Code § 51238.1 lists principals of compatibility for lands under Williamson Act Contract, and soil excavation and exporting is determined to be compatible because it would: (a) not significantly compromise the long-term productive agricultural capability of the property; (b) not significantly displace or impair current or reasonably foreseeable agricultural operations; and (c) not result in the significant removal of adjacent contracted land from agricultural or open-space use.

In consideration of the Project Site and Excess Fill Dirt Site Nos. 3, 4, and 5 containing land zoned for agricultural uses, and Excess Fill Dirt Site Nos. 1 and 3 having lands subject to Williamson Act contracts, an analysis was performed using the CDC's LESA model to determine whether the Project Site or any of the excess fill dirt sites constitute important agricultural resources and, thus, if Project-related temporary and/or long-term conflicts with existing agricultural zoning and/or Williamson Act contracts would represent a substantial adverse effect to the environment (refer to *Technical Appendix B* of this EIR). The results of the LESA analysis are summarized in Table 4.1-3, *LESA Model Scores*.

As shown in Table 4.1-3, neither the Project Site nor any of the excess fill dirt sites are considered an important agricultural resource; all sites score between 40-59 points on the CDC's LESA model but, as previously shown in Table 4.1-2, in order for a property to be considered an important agricultural resource, both the LE and SA Subscores need to be greater than or equal to 20 points, for sites having a point range of 40 to 59. For the Project Site and the excess fill dirt sites, the SA Subscores on each of the properties is less than 20 points.

Table 4.1-3 LESA Model Scores

Project Site	
Land Evaluation (LE) Score	37.7
Site Assessment (SA) Score	16.0
Final LESA Score	**53.7**
Excess Fill Dirt Site No. 1	
Land Evaluation (LE) Score	35.2
Site Assessment (SA) Score	15.5
Final LESA Score	**50.7**
Excess Fill Dirt Site No. 2	
Land Evaluation (LE) Score	34.9
Site Assessment (SA) Score	9.0
Final LESA Score	**43.9**
Excess Fill Dirt Site No. 3	
Land Evaluation (LE) Score	37.5
Site Assessment (SA) Score	19.5
Final LESA Score	**57.0**
Excess Fill Dirt Site No. 4	
Land Evaluation (LE) Score	37.7
Site Assessment (SA) Score	11.0
Final LESA Score	**48.7**
Excess Fill Dirt Site No. 5	
Land Evaluation (LE) Score	34.8
Site Assessment (SA) Score	8.0
Final LESA Score	**42.8**

Source: (T&B Planning, 2019, Table 4-6 through Table 4-11)

Accordingly, the permanent change of the Project Site from an agricultural to non-agricultural zoning category and the potential temporary exclusion of agricultural uses at Excess Fill Dirt Sites 1, 3, 4, and/or 5 having land zoned for agriculture uses and/or subject to active Williamson Act contracts temporary soil excavation and export activities would be less than significant.

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

Threshold d ***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

Neither the Project Site nor Excess Fill Dirt Site Nos. 1 through 5 are zoned as forest land or timberland. Additionally, neither the Project Site nor Excess Fill Dirt Site Nos. 1 through 5 contain forest land. (Chino, 2017b; GLA, 2019, pp. 23-28) Accordingly, implementation of the Project would not conflict with or cause

rezoning of areas currently zoned as forest, timberland, or Timberland Production and would result in the loss of forest land of the conversion of forest land to non-forest use. No impact would occur.

Threshold e: Would the Project 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?

As disclosed above under the analysis for Thresholds "c" and "d," implementation of the Project would not involve changes in the existing environment that would result in conversion of forest land to non-forest land.

As previously disclosed in the analysis for Threshold "a," implementation of the Project would not result in the conversion of land that meets the CDC's definition of Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance) to non-agricultural use.

As shown on Figure 4.1-7, Prime Farmland is mapped adjacent to the Project Site and Excess Fill Dirt Site Nos. 1 through 5. With the exception of an approximately 600-foot long linear trench that would be excavated between the southeastern corner of the Project Site and the Cypress Channel for the installation of an underground storm drain pipe, the Project's development activities would not directly affect the mapped Prime Farmland that abuts the Project Site on the east. Furthermore, the area abutting the Project Site to the east appears to be erroneously mapped as Prime Farmland because it used as a stormwater basin for an existing industrial development located east of the Project Site and has not been used in support of agriculture since before 2013 and, therefore, does not meet the CDC's definition of "Prime Farmland" (refer to Subsection 4.1.2A.2). Accordingly, implementation of the Project and installation of the offsite storm drain pipe would not affect land adjacent to Project Site that meets the CDC's definition of Farmland. Additionally, Prime Farmland mapped adjacent to Excess Fill Dirt Sites Nos. 1 through 5 would not be affected by potential construction activities on the excess fill dirt sites because no soil excavation activities would encroach into Farmland. Accordingly, no Project-related activities would adversely affect off-site land that meets the CDC's definition of Farmland or convert off-site Farmland to a non-agricultural use.

Pursuant to Chapter 20.16 of the City of Chino's Municipal Code ("Right-to-Farm"), should any Farmland in the Project's vicinity be under active cultivation at the time the Project is implemented, the Project Applicant or successor in interest would be required to notify future occupants of the Project's industrial buildings that agricultural operations are present in the immediate area, and of the potential operational characteristics of those agricultural operations, such as odors, noise, dust, pesticide application, and rodent management. Municipal Code Chapter 20.16 also requires the Project Applicant or successor in interest to inform future occupants of the Project's industrial buildings that the City will allow the continued operation of any existing agricultural uses in the surrounding area and will not consider any existing agricultural operations to be a "nuisance" to business activities occurring on the Project Site. Mandatory compliance with the provisions of Chapter 20.16 of the City of Chino's Municipal Code would preclude the potential for Project operations to indirectly result in the conversion of off-site Farmland a non-agricultural use due to agricultural nuisance factors.

4.1.5 Cumulative Impact Analysis

The City of Chino and the larger San Bernardino County area have historically been used for agricultural activity (row crops, orchards, and dairy/livestock); however, agriculture is no longer a substantial long-term economically-viable industry in Chino, and has experienced decline over the past two decades. According to the City of Chino General Plan, the decline of agricultural production in San Bernardino County is expected to continue as the region becomes more urbanized (Chino, 2010a, OSC-8). The economic challenges facing the agriculture industry in the Inland Empire area also are well documented in a report titled *Assessing the Economic and Market Trends Affecting Agriculture in the Western Inland Empire*, prepared by Chang & Adams Consulting (Chang, 2011).

The area surrounding the Project Site is at the tail end of the transitioning process from cropland and dairy land uses to employment-generating land uses. Under existing conditions, the Project Site is vacant and undeveloped, but was previously used for commercial dairy farm operations that ceased between 2013 and 2014; all structures associated with the former dairy operations have since been demolished. Property to the north, northwest, and east of the Project Site all were under agricultural/dairy production through the early 21st century, but today these properties are occupied by large industrial/warehouse buildings (Google Earth Pro, 2019) and property located south and west of the Project Site are occupied by the Butterfield Stage Course of the El Prado Golf Course facility.

The conversion of the Project Site from a former commercial dairy to a non-agricultural (i.e., industrial) use would not affect any land that meets the CDC's definition of Farmland. In addition, none of the five excess fill dirt sites contain land that meets the CDC's definition of Farmland. Therefore, the Project would have no potential to result in a cumulatively-considerable impact to the conversion of Farmland to non-agricultural uses.

Although implementation of the Project would change the zoning designation of the Project Site from an agriculture to a non-agriculture zone, the Project Site is not considered an important agricultural resource according to the LESA model and is not being used for agriculture or dairy production under existing conditions. Accordingly, proposed development activities on the Project Site would not have an adverse effect on agriculture. Furthermore, although implementation of the Project would temporarily preclude the potential establishment of agricultural activities on Excess Fill Dirt Site Nos. 1, 3, and 4, which contain land that is either zoned for agriculture uses and/or subject to active Williamson Act contracts, during temporary, near-term soil excavation and export activities, the Project would not preclude any of the excess fill dirt sites from being used for agriculture following the completion of the soil excavation activities that would occur on Excess Fill Dirt Site No. 1, and potential on Fill Dirt Site Nos. 3 and 4. In addition, none of the excess fill dirt sites are considered to be an important agricultural resource according to the LESA model. Based on the foregoing information, implementation of the Project would not result in a cumulatively considerable adverse effect to local agriculture due to conflicts with agricultural zoning and/or a Williamson Act contract.

Additionally, there are no forest lands, timberlands, or Timberland Production zones on the Project Site or on any of the five excess fill dirt sites, nor are any nearby lands under active production as forest land. Therefore, cumulatively significant impacts to forest land would not occur and the Project has no potential to result in a cumulatively-considerable impact to the loss of these lands.

4.1.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The conversion of the Project Site from a former commercial dairy to a non-agricultural (i.e., industrial) use would not affect any land that meets the CDC's definition of Farmland. Potential soil excavation activities at the five excess fill dirt sites would not affect Farmland.

Threshold b: Less-than-Significant Impact. Implementation of the Project would change the zoning designation on the Project Site from an agricultural to non-agricultural zone. In addition, Excess Fill Dirt Site Nos. 1, 3, 4, and 5, which contain land zoned for agricultural uses and/or are subject to active Williamson Act contracts, would be temporarily precluded from the ability to establish agricultural uses during soil excavation and transport activities during a portion of the Project's construction process. However, because no agricultural activity is currently occurring on these properties and neither the Project Site nor any of the excess fill dirt sites are considered significant agricultural resources by the CDC's LESA model, implementation of the Project would not have a substantial adverse effect on local agricultural production.

Threshold c: No Impact. The Project Site and the five excess fill dirt sites are not zoned for forest land; therefore, implementation of the Project would not conflict with any zoning for forest land resources.

Threshold d: No Impact. There are no forest lands, timberland, or Timberland Production-zoned land on the Project Site nor any of the excess fill dirt sites; therefore, implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest use.

Threshold e: Less-then-Significant Impact. Implementation of the Project would not involve other changes to the existing environment, which, due to their location or nature, could result in conversion of off-site Farmland to non-agricultural use or conversion of forest land to non-forest use.

4.1.7 Mitigation

Impacts would be less than significant; therefore, mitigation would not be required.

4.2 AIR QUALITY

This Subsection is primarily based on four technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential effects on local and regional air quality. The air quality impact analysis prepared for the Project is titled "Majestic Chino Heritage Air Quality Impact Analysis," dated November 6, 2019, and is included as *Technical Appendix B1* to this EIR (Urban Crossroads, 2019a). The mobile source health risk assessment prepared for the Project is titled "Majestic Chino Heritage Construction and Mobile Source Health Risk Assessment," dated November 6, 2019, and is included as *Technical Appendix B2* to this EIR (Urban Crossroads, 2019b). Air pollutant calculations reported in *Technical Appendices B1 and B2* use the California Emissions Estimator Model (CalEEMod) version 2016.3.2 and apply the California Air Resources Board's (CARB's) Emission FACtors (EMFAC) 2014 emission rates. CARB also published EMFAC 2017 emission rates, which reflect CARB's current understanding of how vehicles travel, how much they pollute, and how emission reductions are expected to occur in the future based on State and federal requirements. To take EMFAC 2017 into account, two supplementary reports, titled "Majestic Chino Heritage Supplemental Air Quality Assessment" and "Majestic Chino Heritage Supplemental AQ, GHG, HRA, & EA Based on EMFAC2017 Emission Rates," are included as *Technical Appendix B3* and *Technical Appendix B4*, respectively, to this EIR. (Urban Crossroads, 2019c; Urban Crossroads, 2019d). Because it is currently unknown with certainty whether federal regulations related to vehicular air quality emissions under the Trump Administration and incorporated into EMFAC 2017 will be delayed, reduced, or repealed, for full disclosure and purposes of analysis within this Subsection, the modeling results from both EMFAC2014 and EMFAC2017 are reported. Refer to Section 7.0, *References*, for a complete list of reference sources used in this Subsection.

4.2.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project Site, the Project's off-site improvement areas, and the five excess fill dirt sites evaluated in this EIR are located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east; and the San Diego County line to the south. (Urban Crossroads, 2019a, p. 10)

B. Regional Climate and Methodology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The SCAB's distinctive climate is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The SCAB is semi-arid, with average annual temperatures varying from the low-to-middle 60s, measured in degrees Fahrenheit (F); however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the SCAB's climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur

dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. Inland areas of the SCAB, including where the Project Site is located, show more variability in annual minimum/maximum temperatures and lower average humidity than coastal areas within the SCAB due to decreased marine influence. (Urban Crossroads, 2019a, p. 10)

More than 90 percent of the SCAB's rainfall occurs between November and April. The annual average rainfall within the SCAB varies between approximately nine (9) inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB; the remaining one-quarter is absorbed by clouds. The abundant amount of sunshine (and its associated ultraviolet radiation) is a key factor to the photochemical reactions of air pollutants in the SCAB. (Urban Crossroads, 2019a, pp. 10-11)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings five to 10 periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, 2019a, p. 11)

In the SCAB, there are two distinct temperature inversion structures that control the vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off of the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2019a, p. 11)

C. Air Quality Pollutants and Associated Human Health Effects

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An

overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages (refer also to Section 2.4 of *Technical Appendix B1*).

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when there is little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO and the highest ambient CO concentrations in the SCAB are generally found near congested transportation corridors and intersections. Inhaled CO does not directly affect the lungs but affects tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Therefore, health conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO exposure include headache, nausea, vomiting, dizziness, fatigue, and muscle weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency. (Urban Crossroads, 2019a, Table 2-1)

- **Sulfur Dioxide (SO_2)** is a colorless gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. (Urban Crossroads, 2019a, Table 2-1)

- **Nitrogen Oxides (NO_X)** consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals. (Urban Crossroads, 2019a, Table 2-1)

- **Ozone (O_3)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Children who participate in multiple outdoor sports and live in communities with high ozone levels have been found to have an increased risk for asthma. (Urban Crossroads, 2019a, Table 2-1)

- **Particulate Matter less than 10 microns (PM_{10}) and less than 2.5 microns ($PM_{2.5}$)** are air pollutants consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are 10 microns or smaller or 2.5 microns or smaller, respectively. These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. The small size of PM_{10} and $PM_{2.5}$ allows them to enter the lungs where they may be deposited, resulting in adverse health effects. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be the most susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$. (Urban Crossroads, 2019a, Table 2-1)

- **Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs)** are a family of hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. Individual VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. (Urban Crossroads, 2019a, Table 2-1)

- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, ambient levels of lead have not exceeded applicable air quality standards at any of the SCAQMD's regular air quality monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. (Urban Crossroads, 2019a, Table 2-1)

D. Existing Air Quality

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect (updated by CARB on May 4, 2016) are detailed in Table 4.2-1, *Ambient Air Quality Standards*. In California, a region's air quality is determined to be healthful or unhealthful by comparing pollutant levels in ambient air samples to the applicable NAAQS and CAAQS (as presented in Table 4.2-1).

1. Regional Air Quality

❑ Criteria Pollutants

The SCAQMD monitors levels of various criteria pollutants at 37 monitoring stations throughout its jurisdiction. The attainment status for criteria pollutants within the SCAB is summarized in Table 4.2-2, *SCAB Criteria Pollutant Attainment Status*. (Urban Crossroads, 2019a, p. 22)

❑ Toxic Air Contaminants

Toxic air contaminants (TACs) are a classification of air pollutants that have been attributed to carcinogenic and non-carcinogenic health risks. Beginning in the mid-1980s, the California Air Resources Board (CARB) adopted a series of regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and stationary sources, such as cars, trucks, stationary sources, and consumer products. As a result of CARB's regulatory efforts, ambient concentrations of TACs have declined substantially across the State. (Urban Crossroads, 2019a, p. 34)

To reduce TAC emissions from mobile sources, CARB has required that all light- and medium-duty vehicles sold in California since 1996 be equipped with an on-board diagnostic system to alert drivers of potential engine problems (as approximately half of all tailpipe emissions result from malfunctioning emissions control devices). Also, since 1996, CARB has required the use of cleaner burning, reformulated gasoline in all light- and medium-duty vehicles. These two regulations resulted in an over 80 percent reduction in TAC emissions from light- and medium-duty vehicles in the State between 1990 and 2012 despite an approximately 30 percent increase in the State's population over that same time period. The CARB also implemented programs to retrofit diesel-fueled engines and facilitate the use of diesel fuels with ultra-low sulfur content to minimize the

amount of diesel emissions and their associated TACs. As a result of CARB's programs, diesel emissions and their associated TACs fell by approximately 68 percent since 2000 despite an approximately 81 percent increase in miles traveled by diesel vehicles during that same time period. CARB's efforts at reducing stationary source TACs have been focused mainly on the dry cleaning and paint/architectural coating industries, which have resulted in a greater than 85 percent reduction of stationary source TACs across the State between 1990 and 2012. (Urban Crossroads, 2019a, p. 35)

Table 4.2-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: (Urban Crossroads, 2019a, Table 2-2)

Table 4.2-2 SCAB Criteria Pollutant Attainment Status

Criteria Pollutant	State Designation	Federal Designation
Ozone – 1 hour standard	Nonattainment	Nonattainment ("extreme")
Ozone – 8 hour standard	Nonattainment	Nonattainment ("extreme")
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment ("serious")
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassifiable/Attainment
Sulfur Dioxide	Attainment	Unclassifiable/Attainment
Lead[1]	Attainment	Nonattainment (Partial)

State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Source: (Urban Crossroads, 2019a, Table 2-3)

In 2000, the SCAQMD prepared a comprehensive urban toxic air pollution study to evaluate the TAC concentration levels in the SCAB and their associated health risks, called *MATES-II* (Multiple Air Toxics Exposure Study in the South Coast Air Basin). *MATES-II* showed an average regional excess cancer risk of about 1,400 in one million. As part of the *MATES-II* study, the SCAQMD concluded that diesel particulate matter (DPM) accounted for more than 70 percent of the identified excess cancer risk in the SCAB. The SCAQMD has updated their urban toxic air pollution survey twice since 2000, with the 2008 (*MATES-III*) and 2014 updates (*MATES-IV*) both showing reductions in the average excess cancer risk within the SCAB relative to the levels disclosed in *MATES-II*. The current version of the urban toxic air pollution survey, *MATES-IV*, is the most comprehensive dataset of ambient air toxic levels and health risks within the SCAB. The *MATES-IV* report estimates the average Basin-wide excess cancer risk level within the SCAB to be 418 in one million, an approximately 70 percent improvement from the findings of *MATES-II* report just 15 years earlier. According to SCAQMD, DPM accounts for approximately 68 percent of the total risk shown in *MATES-IV*. (Urban Crossroads, 2019a, p. 36)

❑ Regional Air Quality Improvement

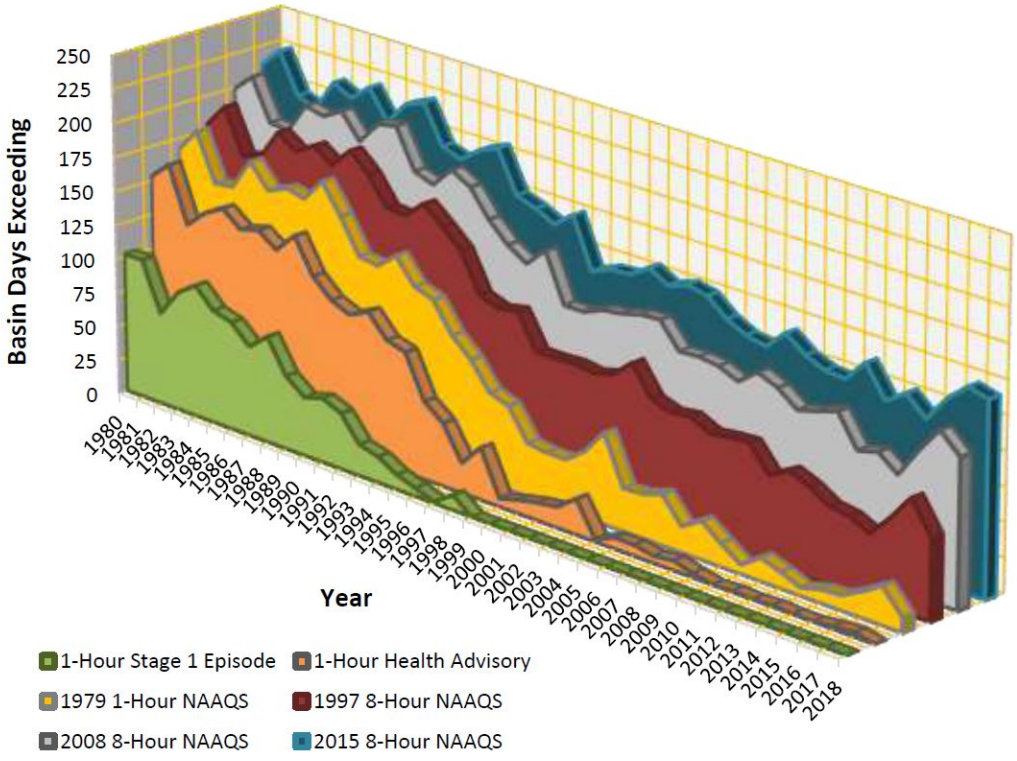
The SCAB has been one of the most unhealthful air basins in the United States and has experienced unhealthful air quality since World War II. However, as a result of the region's air pollution control efforts over the last 60+ years, criteria pollutant concentrations in the SCAB have reduced dramatically and are expected to continue to improve in the future as State regulations become more stringent. (Urban Crossroads, 2019a, pp. 27-37).

Emissions of O_3, NO_X, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_X and VOC levels are decreasing because of federal and State mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O_3 contour maps show that the number of days exceeding the 8-hour NAAQS decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. However, as shown on Figure

[1]In 2015, the Los Angeles County portion of the SCAB exceeded applicable federal lead standards; however, all other portions of the SCAB – including the portion of the SCAB where the Project Site is located – did not exceed federal lead standards.

4.2-1, *South Coast Air Basin Ozone Trend*, O_3 levels have increased in the past two years due to higher temperatures and stagnant weather conditions. Notwithstanding, O_3 levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 1970s. (Urban Crossroads, 2019a, p. 28)

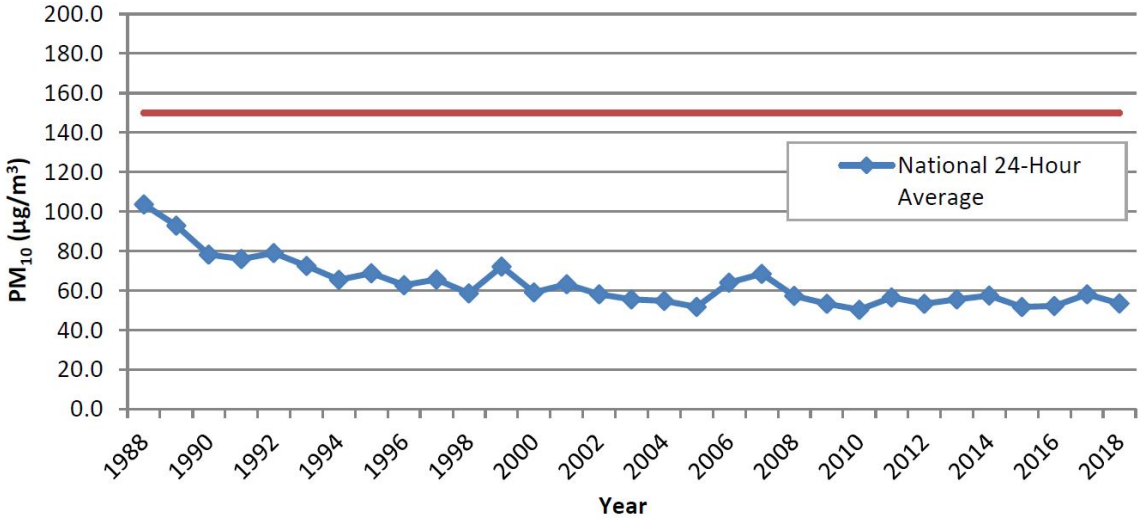
Figure 4.2-1 South Coast Air Basin Ozone Trend



Source: (Urban Crossroads, 2019a, Table 2-5)

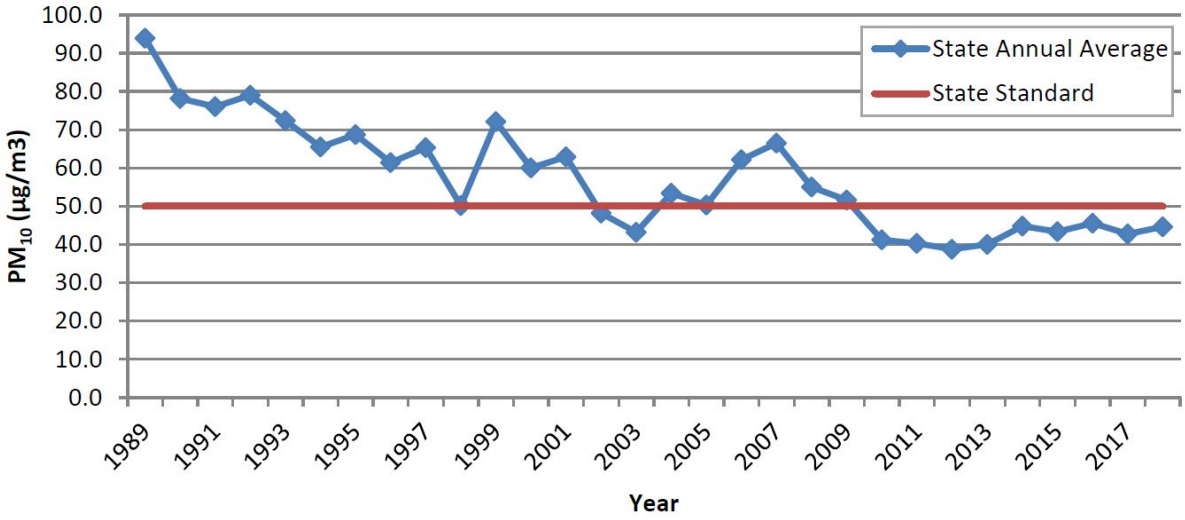
As with other pollutants, the most recent PM_{10} statistics show an overall improvement as illustrated in Figure 4.2-2, *South Coast Air Basin PM_{10} Trend (Federal Standard)*, and Figure 4.2-3, *South Coast Air Basin PM10 Trend (State Standard)*. During the period for which data are available, the 24-hour national annual average concentration for PM_{10} decreased by approximately 48 percent, from 103.7 µg/m³ in 1988 to 53.5 µg/m³ in 2018. Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations will exceed the threshold. Although data in the late 1990's show some variability, this is likely due to the advances in meteorological science rather than a change in emissions. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM_{10} standards has also shown an overall drop. (Urban Crossroads, 2019a, p. 29)

Figure 4.2-2 South Coast Air Basin PM_{10} Trend (Federal Standard)



Source: (Urban Crossroads, 2019a, Table 2-6)

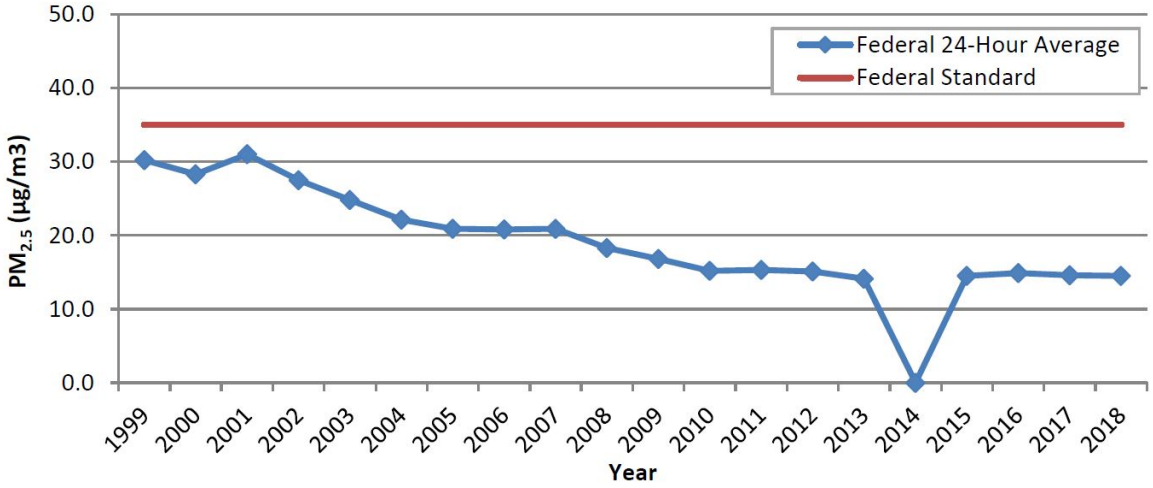
Figure 4.2-3 South Coast Air Basin PM_{10} Trend (State Standard)



Source: (Urban Crossroads, 2019a, Table 2-7)

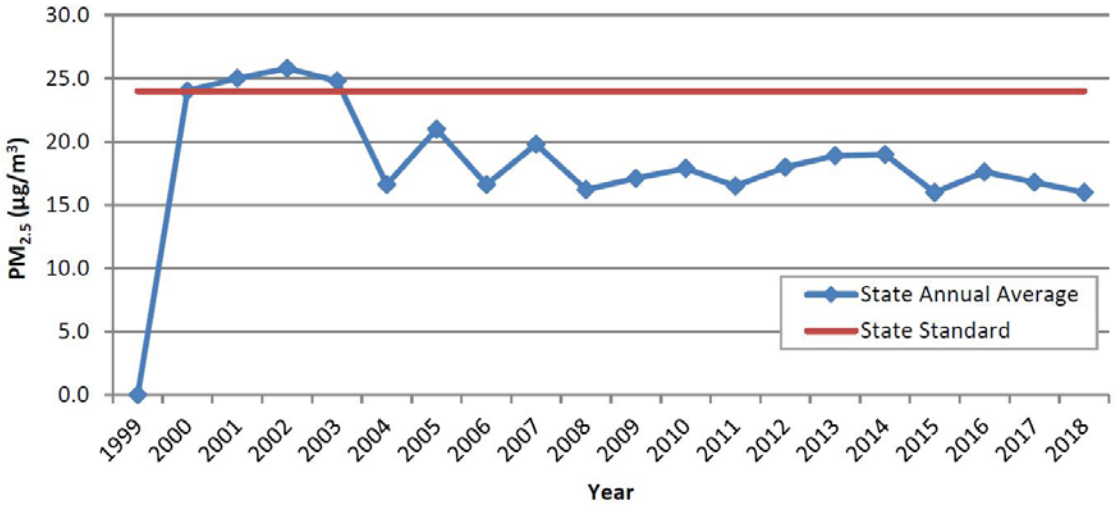
Figure 4.2-4, *South Coast Air Basin PM2.5 Trend (Federal Standard)*, and Figure 4.2-5, *South Coast Air Basin PM2.5 Trend (State Standard)*, show the most recent 24-hour average $PM_{2.5}$ concentrations in the SCAB from 1999 through 2018. Overall, the national and State annual average concentrations decreased by almost 52 percent and 33 percent, respectively. It should be noted that the SCAB is currently designated as nonattainment for the State and federal $PM_{2.5}$ standards. (Urban Crossroads, 2019a, p. 30)

Figure 4.2-4 South Coast Air Basin $PM_{2.5}$ Trend (Federal Standard)



Source: (Urban Crossroads, 2019a, Table 2-8)

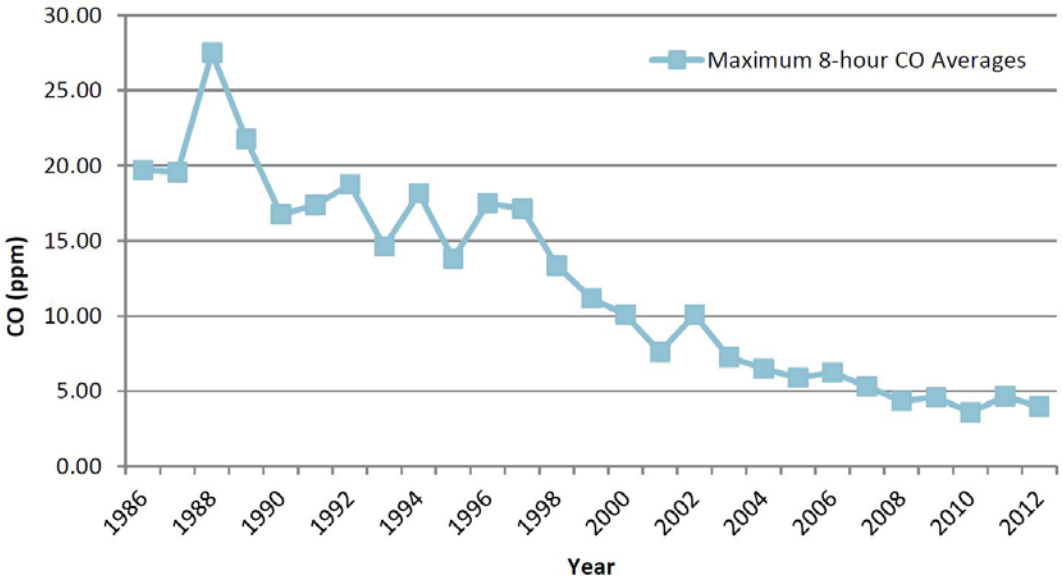
Figure 4.2-5 South Coast Air Basin $PM_{2.5}$ Trend (State Standard)



Source: (Urban Crossroads, 2019a, Table 2-9)

The most recent CO concentrations in the SCAB are shown in Figure 4.2-6, *South Coast Air Basin 24-Hour Average CO Trend*. CO concentrations in the SCAB have decreased markedly – a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the State and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations. (Urban Crossroads, 2019a, pp. 31-32)

Figure 4.2-6 South Coast Air Basin 24-Hour Average CO Trend

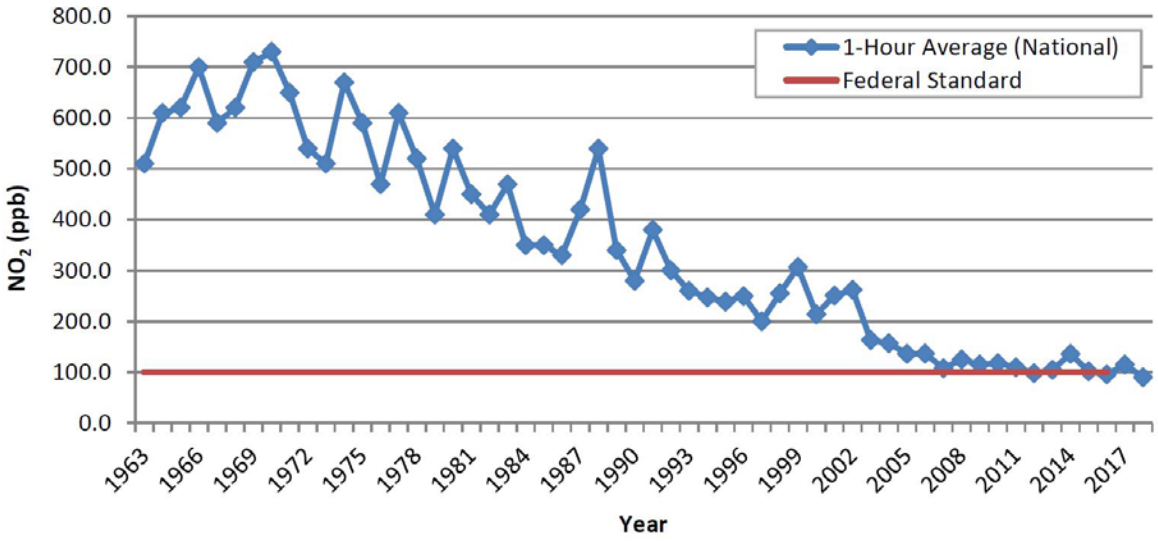


Source: (Urban Crossroads, 2019a, Table 2-10)

The most recent NO_2 data for the SCAB is shown in Figure 4.2-7, *South Coast Air Basin NO_X Trend (Federal Standard)*, and Figure 4.2-8, *South Coast Air Basin NO_X Trend (State Standard)*. Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour national and State averages for 2018 are approximately 82 percent lower than reported for 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire State of California into attainment. A new State annual average standard of 0.030 parts per million was adopted by the ARB in February 2007. The new standard is just barely exceeded in the SCAQMD today. NO_2 is formed from NO_X emissions, which also contribute to O_3. As a result, the majority of the future emission control measures will be implemented by the State as part of the overall ozone control strategy. Many of these control measures will target mobile (vehicle tailpipe) sources, which account for more than three-quarters of California's NO_X emissions. These State-mandated control measures are expected to bring the SCAQMD into attainment of the State annual average standard. (Urban Crossroads, 2019a, p. 32)

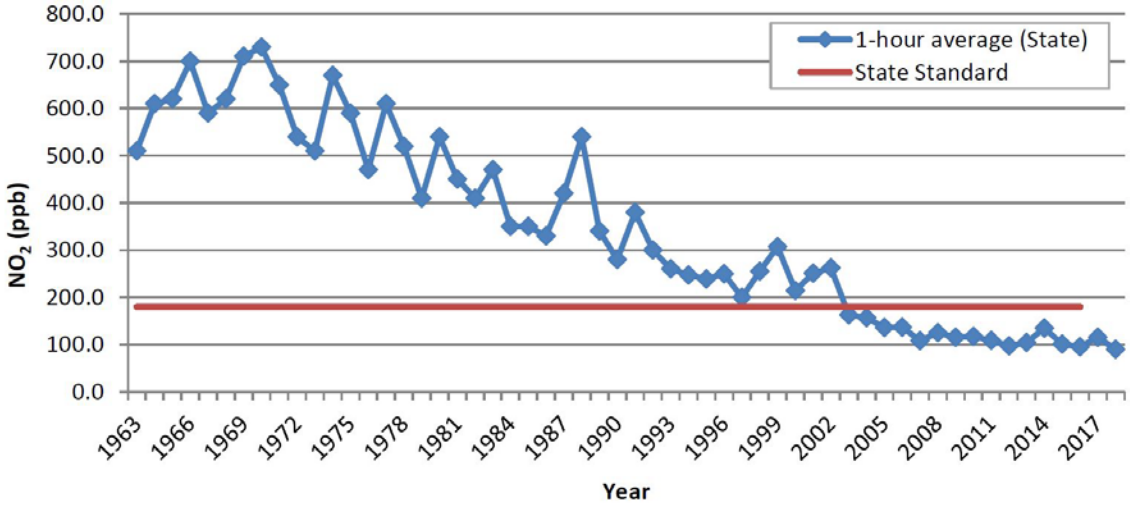
According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article, which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined substantially (between 1990 and 2012). As a result of measures adopted by CARB, DPM concentrations have declined 68% since 2000, even though the State's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Figure 4.2-9, *Diesel Particulate Matter and Diesel Vehicle Miles Trend*. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020. Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, are projected to dramatically reduce due to regulatory requirements on vehicular emissions adopted by CARB and the Ports of Los Angeles and Long Beach. (Urban Crossroads, 2019a, pp. 35-36)

Figure 4.2-7 South Coast Air Basin NO_X Trend (Federal Standard)



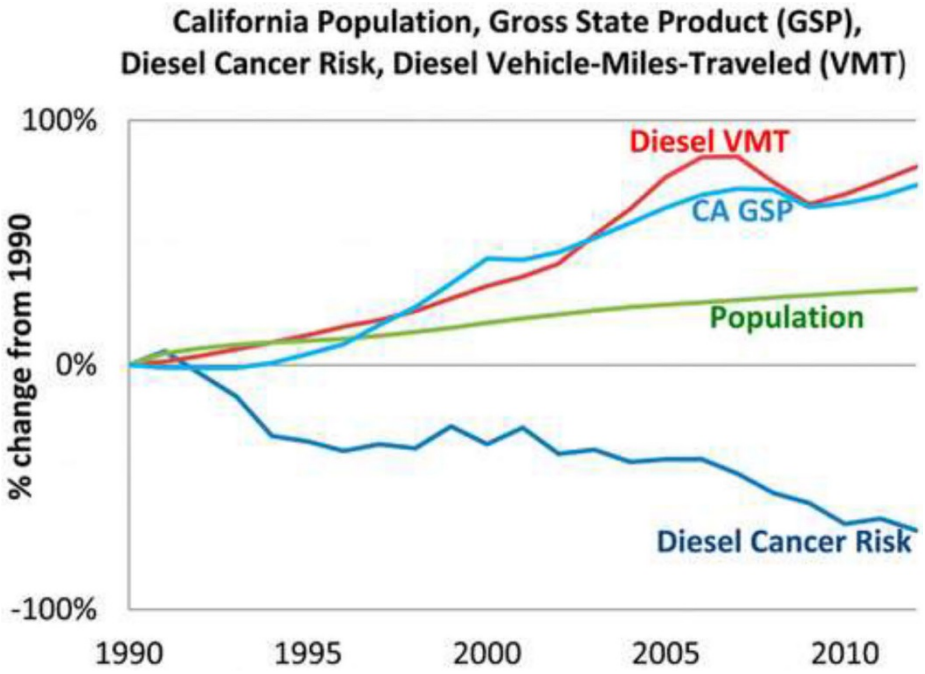
Source: (Urban Crossroads, 2019a, Table 2-11)

Figure 4.2-8 South Coast Air Basin NO_X Trend (State Standard)



Source: (Urban Crossroads, 2019a, Table 2-12)

Figure 4.2-9 Diesel Particulate Matter and Diesel Vehicle Miles Trend



(Urban Crossroads, 2019a, Exhibit 2-B)

2. Local Air Quality

❑ Criteria Pollutants

Local air quality data was collected from four SCAQMD air quality monitoring stations located nearest to the Project Site: CA-60 Near Road monitoring station (located approximately 5.48 miles northeast of the Project Site for NO_2 and $PM_{2.5}$); I-10 Near Road monitoring station (located approximately 10.73 miles northeast of the Project Site for CO); Pomona/Walnut Valley monitoring station (located approximately 8.76 miles northwest of the Project Site for O_3); and Corona/Norco Area monitoring station (located approximately 5.55 miles southeast of the Project Site for PM_{10}). It should be noted that both the Pomona/Walnut Valley and Corona/Norco Area monitoring stations were utilized in lieu of the CA-60 Near Road and I-10 Near Road monitoring stations only in instances where data was not available. Data was collected for the three most recent years for which data was available (2016-2018). (Urban Crossroads, 2019a, pp. 22-23) Ambient air pollutant concentrations in the Project area are summarized in Table 4.2-3, *Project Area Air Quality Monitoring Summary*.

Table 4.2-3 Project Area Air Quality Monitoring Summary

POLLUTANT	STANDARD	YEAR		
		2016	2017	2018
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.127	0.147	0.112
Maximum Federal 8-Hour Concentration (ppm)		0.092	0.114	0.092
Number of Days Exceeding Federal 1-Hour Standard	>0.07 ppm	1	5	0
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	20	18	7
Number of Days Exceeding Federal 8-Hour Standard	> 0.070 ppm	26	35	10
Number of Days Exceeding State 8-Hour Standard	> 0.070 ppm	29	35	10
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.7	4.2	1.6
Maximum Federal 8-Hour Concentration	> 20 ppm	1.3	1.3	1.3
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.089	0.093	0.079
Annual Federal Standard Design Value		31.0	32.1	30.4
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	62.0	85.1	100
Annual Federal Arithmetic Mean ($\mu g/m^3$)		31.7	31.2	30.2
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 $\mu g/m^3$	7	7	3
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	55.9	67.8	47.9
Annual Federal Arithmetic Mean ($\mu g/m^3$)	> 12 $\mu g/m^3$	14.8	14.6	14.3
Number of Days Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	7	9	5

Source: (Urban Crossroads, 2019a, Table 2-4)

❑ Toxic Air Contaminants

As part of preparation of the *MATES-IV* study, the SCAQMD collected toxic air contaminant data at 10 fixed sites within the SCAB. None of the fixed monitoring sites are located within the vicinity of the Project Site; however, *MATES-IV* extrapolates the excess cancer risk levels throughout the SCAB using mathematical modeling for specific geographic grids. *MATES-IV* estimates an excess carcinogenic risk of 675.86 in one million for the Project area. (Urban Crossroads, 2019a, p. 36; SCAQMD, 2015) Diesel particulate matter (DPM) accounts for 68% of the total risk shown in MATES-IV. (Urban Crossroads, 2019a, p. 36)

4.2.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of applicable federal, State, and local environmental laws and related regulations governing air quality emissions.

A. Federal Plans, Policies, and Regulations

1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 *et seq.*) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental

Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include O_3, CO, NO_X, SO_2, PM_{10}, $PM_{2.5}$, and lead. (EPA, 2019c)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2019c)

The sections of the federal CAA most directly applicable to the development of the Project Site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of ozone (smog), carbon monoxide (CO), and particulate matter (PM_{10}). Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet federal air quality standards designed to protect public health. (EPA, 2017b) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_X on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2017c)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2019c)

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2019c)

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. The EPA develops national enforcement initiatives that focus on substantial

environmental risks and noncompliance patterns. For Fiscal Years 2014 to 2016, the Cutting Hazardous Air Pollutants National Initiatives Strategy focuses on categories of sources that emit HAPs. (EPA, 2018)

Sources subject to NESHAPs are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance. Consistent with EPA's Clean Air Act Stationary Source Compliance Monitoring Strategy, NESHAP sources that meet the Clean Air Act definition of "major source" generally receive a full compliance evaluation by the state or regional office at least once every two years. (EPA, 2018)

3. SmartWay Program (Voluntary)

The US EPA's SmartWay Program is a voluntary public-private program developed in 2004, which 1) provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains; 2) helps companies identify and select more efficient freight carriers, transport modes, equipment, and operational strategies to improve supply chain sustainability and lower costs from goods movement; 3) supports global energy security and offsets environmental risk for companies and countries; and 4) reduces freight transportation-related emissions by accelerating the use of advanced fuel-saving technologies. This program is supported by major transportation industry associations, environmental groups, State and local governments, international agencies, and the corporate community. (EPA, 2017d)

B. State Plans, Policies, and Regulations

1. California Clean Air Act (CCAA)

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants. The CCAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the California Ambient Air Quality Standards (CAAQS), by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources. (SCAQMD, 2019)

2. Air Quality Management Planning

The California Air Resources Board (CARB) and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established under both the CAA and CCAA. For the areas within California that have not attained air quality standards, CARB works with local air districts to develop and implement State and local attainment plans. In general, attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment

demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. Air quality planning activities undertaken by CARB also include the development of policies, guidance, and regulations related to State and federal ambient air quality standards; coordination with local agencies on transportation plans and strategies; and providing assistance to local districts and transportation agencies. (CARB, 2019a)

3. California Air Resources Board Rules

The CARB enforces rules related to air pollutant emissions in the State of California. Rules with applicability to the Project include, but are not limited to, those listed below.

- CARB Rule 2485 (13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling, which limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449 (13 CCR 2449): General Requirements for In-Use Off-Road Diesel-Fueled Fleets, which limits nonessential idling to five minutes or less for diesel-powered off-road equipment.

4. CARB Truck & Bus Rule

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were to be removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks are required to be equipped with PM filters and upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements are occurring on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020. (CARB, 2019b) To help ensure that the benefits of this regulation are achieved, starting in 2020, only vehicles compliant with the Truck and Bus Regulation will be registered by the California Department of Motor Vehicles (DMV).

C. Local Plans, Policies, and Regulations

1. SCAQMD Air Quality Management Plan

Under existing conditions, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code § 40702 *et seq.* and the California CAA, the SCAQMD adopted an Air Quality Management Plan (AQMP) to plan for the improvement of regional air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD's most recent iteration of the AQMP was adopted in March 2017. The Final *2016 Air Quality Management Plan (AQMP)* incorporates the latest scientific and technological information and local and regional land development plans, including the Southern California Association of Governments (SCAG) *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).* The Final *2016 AQMP* is based on current emissions modeling data, recent motor vehicle emissions information, and

demographic data/projections provided by SCAG. The air quality pollutant levels projected in the Final *2016 AQMP* are based on the assumption that buildout of the region will occur in accordance with local general plans and specific plans, and in accordance with growth projections identified by SCAG in its *2016 RTP/SCS*.

2. Applicable SCAQMD Rules

The SCAQMD Rules that are applicable to construction and operation of the Project include, but are not limited to, those listed below(Urban Crossroads, 2019a, p. 46):

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 431.2: Low Sulfur Fuel
- SCAQMD Rule 1113: Table of Standards
- SCAQMD Rule 1186: PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

Specific to the proposed Project, Rule 201 requires the issuance of a SCAQMD permit should any operator install equipment that involves the release of air contaminants. Rule 402 prohibits the discharge of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public (SCAQMD, 1976). Rule 403 requires the implementation of best available dust control measures (BACMs) during activities capable of generating fugitive dust. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms; a large operation is defined as any active operation on property containing 50 or more acres of disturbed surface area; or any earth moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards), three times during the most recent 365 day period. (SCAQMD, 2005). Rule 1113 requires all buildings within the SCAQMD to adhere to the VOC limits for architectural coatings (SCAQMD, 2016). Rule 1186 requires the cleaning (sweeping) of paved public roads on which there is visible dirt accumulations, including during the construction of development projects. SCAQMD Rule 1403 mandates work practice requirements to limit asbestos emissions from building demolition (and renovation) activities including the removal and disturbance of asbestos-containing materials (ACM).

4.2.3 Methodology for Calculating Project-Related Air Quality Impacts

The California Emissions Estimator Model (CalEEMod), version 2016.3.2, was used to calculate all Project-related air pollutant emissions (with the exception of localized emissions and diesel particulate matter emissions from Project operations; refer to Subsection 4.2.3B, below). The CalEEMod is a statewide land use emission computer model developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts, including the SCAQMD, that provides a uniform platform to quantify potential criteria pollutant emissions associated with construction and operation of land development projects. CalEEMod defaults for mobile source emissions have been revised to reflect CARB's Emission FACtors (EMFAC) emission rates. For conservative measures, this analysis provides two separate calculations of the Project's construction and operations emissions – once using EMFAC2014 and once using EMFAC2017 – because it is not certain which of the EMFAC emission rate assumptions for future vehicular-related

emissions will be most reflective of in-place regulatory requirements at the time of Project construction and operation. (Urban Crossroads, 2019a, p. 40)

A. Methodology for Calculating Project Construction Emissions

1. Regional Pollutant Emissions

The Project's construction process, including the excavation and transport activities from the excess fill dirt sites, would last approximately 17 months. Project construction would start with soil excavation and import activities that are analyzed to occur between June 2021 and November 2021. The building construction activities are analyzed to occur between November 2021 and December 2022 (refer to Table 3-1 in EIR Section 3.0), and would contain four phases: 1) on-site grading; 2) building construction; 3) paving; and 4) architectural coating. This assumption represents a "worst-case" analysis scenario because, should construction occur later than the dates assumed in the analysis, construction equipment emission generation would be lower than assumed in the analysis due to emission regulations becoming more stringent over time and the retirement of older (higher-polluting) equipment and replacement with newer (less-polluting) pieces of equipment. The air quality model for Project construction also assumes the operation of the equipment listed in Table 3-2 in EIR Section 3.0. The analysis assumptions for Project construction duration and Project construction equipment are based on information provided by the Project Applicant and the experience and technical expertise of the Project's air quality technical expert (Urban Crossroads). (Urban Crossroads, 2019a, pp. 40-42)

Refer to Section 3.4 of *Technical Appendix B1* for more detail on the methodology utilized to calculate the Project's construction-related regional pollutant emissions.

2. Localized Pollutant Emissions

Project-related localized pollutant emissions were calculated in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology* ("LST Methodology"). The localized pollutant emissions analysis relies on the same assumptions used to calculate construction-related regional pollutant emissions, as described above. Pursuant to the SCAQMD's recommended methodology, the analysis of construction-related localized pollutant emissions included the following process (Urban Crossroads, 2019a, pp. 53-54):

- The CalEEMod was utilized to determine the maximum daily on-site emissions that would occur during construction activity.
- The SCAQMD's *Fact Sheet for Applying CalEEMod to LSTs* was used to determine the maximum Project Site acreage that would be actively disturbed based on the construction equipment fleet and equipment hours as estimated in the CalEEMod.
- SCAQMD's methodology recommends using look-up tables for projects less than or equal to five (5) acres in size and using dispersion modeling for projects greater than five (5) acres in size. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.

The "acres disturbed" for analytical purposes are based on the specific equipment type for each subcategory of construction activity and the estimated maximum area a given piece of equipment can pass over in 8-hours

of operation (a typical workday). The equipment-specific disturbance rates were obtained from the CalEEMod user's guide, *Appendix A: Calculation Details for CalEEMod* (October 2017). It should be noted that the disturbed area per day is representative of a piece of equipment making multiple passes per day over the same land area. Based on the CalEEMod user's guide, Project construction is estimated to actively disturb 5.0 acres per day at both the Project Site and at the excess fill dirt site that is under simultaneous active excavation/grading (for a total of 10.0 acres per day). Because Project construction is expected to disturb 5.0 acres per day during peak construction activities at the Project Site and at excess fill dirt sites,, the SCAQMD's screening look-up tables were utilized to determine localized pollutant concentration levels at sensitive receptor locations near the Project Site and/or Excess Fill Dirt Sites Nos. 1 through 5. (Urban Crossroads, 2019a, p. 54)

Sensitive receptor locations are considered to be locations where children, the elderly, or an individual who might have respiratory difficulties could remain for 24 hours. A total of 14 representative sensitive receptor locations were considered in the localized analysis, including residential dwelling units located east and west of the Project Site, north of Excess Fill Dirt Site Nos. 2 and 5, and north and west of Excess Fill Dirt Sites No. 4; park use west of the Project Site; an equestrian center (where an individual caretaker could remain for 24 hours) east of Excess Fill Dirt Site No. 1 and south of Excess Fill Dirt Site No. 2, respectively; the Prado Regional Park southeast of Excess Fill Dirt Site No. 1 and west of Excess Fill Dirt Site No. 3; a women's correctional facility north of Excess Fill Dirt Site No. 3; and future planned residential dwelling units in the planned Rancho Miramonte project (by Trumark Companies) east and west of Excess Fill Dirt Sites Nos. 3 and 4, respectively. Even though in some of these locations sensitive receptors would be present for 24 hours only on a transient basis (such as at a campground or park) or may not be occupied during all stages of Project construction (such as the planned homes at Rancho Miramonte which may not be occupied at the time of soil excavation/hauling on adjacent excess fill dirt sites), these locations were nonetheless studied as a conservative measure (Urban Crossroads, 2019a, pp. 55-56)

The SCAQMD's *Final Localized Significance Threshold Methodology* indicates that off-site mobile emissions from development projects should be excluded from localized emissions analyses. Therefore, for purposes of calculating the Project's construction-related localized pollutant emissions, only emissions included in the CalEEMod on-site emissions outputs were considered. (Urban Crossroads, 2019a, p. 54)

Refer to Section 3.6 of *Technical Appendix B1* for more detail on the methodology utilized to calculate Project construction-related localized pollutant emissions.

B. Methodology for Calculating Project Operational Emissions

1. Regional Pollutant Emissions

The Project's operational-related regional pollutant emissions analysis quantifies air pollutant emissions from mobile sources, on-site equipment sources, area sources (e.g., architectural coatings, consumer products, landscape maintenance equipment), and energy sources. (Urban Crossroads, 2019a, p. 48)

Mobile source emissions are the product of the number of daily vehicle trips generated by the Project, the composition of the Project's vehicle fleet (mix of passenger cars, light-heavy-duty trucks, medium-heavy-duty

trucks, and heavy-heavy duty trucks), and the trip length (number of miles driven) by Project vehicles. The Project's average number of daily vehicle trips and vehicle fleet mix were determined using the methodology described in detail in EIR Subsection 4.12, *Transportation*. The trip length for Project-related vehicles was determined by performing select zone model runs in the regional traffic model, the San Bernardino Transportation Analysis Model (SBTAM). The use of SBTAM to calculate the miles traveled by Project-related vehicles follows the practice recommended by the Governor's Office of Planning and Research (OPR) to provide an analysis that better reflects a project's specific location in the region than does an analysis that relies solely on generic, default inputs. Based on the SBTAM select zone model runs, the average trip length for Project-related trucks was 31.82 miles for high-cube warehouse (without cold storage) uses and 26.18 miles for high-cube warehouse (with cold storage), and the average trip length for all other Project-related passenger vehicles was 14.5 miles. (Urban Crossroads, 2019a, p. 50)

The Project's operational analysis also assumes the operation of eight yard-tractors (also known as a terminal tractor, yard goat, yard truck, yard mule, or yard dog) on the Project Site for up to four (4) hours per day for all 365 days of the year. To be conservative, each yard tractor was assumed to be 200 horsepower and powered with gasoline or natural gas even though some/all may in actuality be powered by electricity. (Urban Crossroads, 2019a, pp. 51-52).

The estimated area source emissions and energy source emissions analyses for the Project rely on default inputs within CalEEMod (Urban Crossroads, 2019a, pp. 48-49).

Refer to Section 3.5 of *Technical Appendix B1* for detailed information on the methodology utilized to calculate regional pollutant emissions during Project operation.

2. Localized Pollutant Emissions

The LST Methodology provides look-up tables for sites with an area with daily disturbance of 5 acres or less. For projects that exceed 5 acres, the 5-acre LST look-up tables can be used as a screening tool to determine which pollutants require additional detailed analysis. This approach is conservative as it assumes that all on-site emissions associated with the project would occur within a concentrated 5-acre area. This screening method would therefore over-predict potential localized impacts, because by assuming that on-site operational activities are occurring over a smaller area, the resulting concentrations of air pollutants are more highly concentrated once they reach the smaller site boundary than they would be for activities if they were spread out over a larger surface area. On a larger site, the same amount of air pollutants generated would disperse over a larger surface area and would result in a lower concentration once emissions reach the project-site boundary. As such, LSTs for a 5-acre site during operations are used as a screening tool to determine if further detailed analysis is required. (Urban Crossroads, 2019a, p. 62)

The LST analysis evaluates on-site emissions sources only. However, the CalEEMod outputs do not separate on-site and off-site mobile source emissions; therefore, the emissions shown on Table 4.2-7 and Table 4.2-8 represent all on-site Project-related stationary (area) sources. For purposes of analysis, it is conservatively assumed that the maximum distance a passenger car and/or truck would make through the Project Site (round trip from one end of the Project Site to the other) is approximately 3.5 miles. This distance represents 24.14%

of all passenger car-related mobile sources and 11.17% of all truck-related mobile sources. (Urban Crossroads, 2019a, p. 62)

The operational LST analysis utilizes the same sensitive receptor locations that were utilized in the construction LST analysis, as described above in Subsection 4.2.3.A.2.

Refer to Section 3.7 of *Technical Appendix B1* for detailed information on the methodology utilized to calculate the Project's operational localized pollutant emissions.

3. Diesel Particulate Matter Emissions

Diesel particulate matter (DPM) emissions from trucks traveling to and from the Project Site were calculated using emission factors for PM_{10} generated with EMFAC 2014 and EMFAC 2017. Refer to Section 2.3 of *Technical Appendix B2* and Attachment D of *Technical Appendix B4* for a detailed description of the model inputs and equations used in the estimation of the Project-related DPM emissions. (Urban Crossroads, 2019b, pp. 17-21)

The potential health risks of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, emissions were modeled using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) software program. Refer to Section 2.4 of *Technical Appendix B2* for a detailed description of the model inputs and equations used in the calculation of average particulate concentrations during operation of the Project. (Urban Crossroads, 2019b, pp. 21-24)

Health risks associated with exposure to DPM emissions at a given concentration are defined in terms of the probability of developing cancer or chronic non-cancer health effects as a result of exposure to DPM emissions at a given concentration. The cancer and non-cancer risk probabilities are determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The evaluation results in a maximum health risk value, which is merely a calculation of risk and does not necessarily mean anyone will contract cancer or other non-cancer health concern as a result of the exposure. The equations and input factors utilized in the Project analysis were obtained from Office of Environmental Health Hazard Assessment (OEHHA). Refer to Section 2.5 of *Technical Appendix B2* for a detailed description of the variable inputs and equations used in the calculations of receptor population health risks associated with Project operations. (Urban Crossroads, 2019a, pp. 24-25)

4.2.4 Basis for Determining Significance

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

a. Conflict with or obstruct implementation of the applicable air quality plan;

b. 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;

c. Expose sensitive receptors to substantial pollutant concentrations; or

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

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects to regional and local air quality that could result from development projects.

The Project would result in a significant impact under Threshold "a" if the Project were determined to conflict with the SCAQMD *2016 AQMP*. Pursuant to Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook, a project would conflict with the *AQMP* if either of the following conditions were to occur (Urban Crossroads, 2019a, pp. 66-67):

- The Project would increase the frequency or severity of existing NAAQS and/or CAAQS violations, cause or contribute to new air quality violations, or delay the attainment of interim air quality standards; or
- The Project would exceed the *2016 AQMP's* future year buildout assumptions.

For evaluation under Threshold "b," the Project would result in a cumulatively-considerable impact if the Project's construction and/or operational activities exceed one or more of the SCAQMD's "Regional Thresholds" for criteria pollutant emissions. The "Regional Thresholds" established by SCAQMD for criteria pollutants are summarized in Table 4.2-4, *SCAQMD Maximum Daily Emissions Regional Thresholds*. (Urban Crossroads, 2019a, p. 39)

Table 4.2-4 SCAQMD Maximum Daily Emissions Regional Thresholds

Pollutant	Construction	Operations
Regional Thresholds		
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

lbs/day = pounds per day
Source: (Urban Crossroads, 2019a, Table 3-1)

For evaluation under Threshold "c," the Project would result in a significant impact if any of the following were to occur:

- The Project's localized criteria pollutant emissions would exceed one or more of the SCAQMD "Localized Thresholds" listed in Table 4.2-5, *SCAQMD Maximum Daily Emissions Localized Thresholds*;

- The Project would cause or contribute to a CO "Hot Spot;" and/or
- The Project's toxic air contaminant emissions, like DPM, would expose sensitive receptor populations to an incremental cancer risk of greater than 10 in one million; and/or result in a non-carcinogenic health risk rating ("Acute Hazard Index") greater than 1.0.

Table 4.2-5 SCAQMD Maximum Daily Emissions Localized Thresholds

Pollutant	Construction	Operations
Localized Thresholds		
NOx	291 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	295 lbs/day
	278 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	
	270 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	
	357 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	
	291 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	
	295 lbs/day (On-Site Grading (Post Dirt Import))	
CO	2,700 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	2,796 lbs/day
	2,384 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	
	2,193 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	
	4,567 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	
	2,700 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	
	2,796 lbs/day (On-Site Grading (Post Dirt Import))	

Table 4.2-5 SCAQMD Maximum Daily Emissions Localized Thresholds

Pollutant	Construction	Operations
	Localized Thresholds	
PM_{10}	43 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	78 lbs/day
	24 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	
	16 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	
	72 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	
	43 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	
	322 lbs/day (On-Site Grading (Post Dirt Import))	
$PM_{2.5}$	11 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	41 lbs/day
	10 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	
	9 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	
	18 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	
	11 lbs/day (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	
	170 lbs/day (On-Site Grading (Post Dirt Import))	

Source: (Urban Crossroads, 2019a, Table 3-11)

For evaluation under Threshold "d," a significant impact would occur if the Project's construction and/or operational activities result in air emissions leading to an odor nuisance pursuant to SCAQMD Rule 402.

4.2.5 IMPACT ANALYSIS

Threshold a: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The SCAQMD *2016 AQMP*, which is the applicable air quality plan for the Project area, addresses long-term air quality conditions for the SCAB. The criteria for determining consistency with the *2016 AQMP* are analyzed below.

- *Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

  Consistency Criterion No. 1 refers to violations of the NAAQS and CAAQS. Violations of the NAAQS and/or CAAQS would occur if the emissions resulting from the Project were to exceed the SCAQMD's localized emissions thresholds. As a conservative measure, the Project's regional emissions of VOC, NO_X, PM_{10}, or $PM_{2.5}$ are considered in the consistency determination because if the Project's emissions would exceed the applicable SCAQMD regional thresholds, then these emissions could delay the SCAB's attainment of federal and/or State ozone or particulate matter standards. As disclosed under the analysis for Threshold "c," below, the Project-related activities would not exceed SCAQMD localized emissions thresholds during construction or long-term operation. However, as disclosed under the analysis for Threshold "b," Project construction activities would exceed the SCAQMD regional threshold for NO_X emissions and Project operational activities would exceed the SCAQMD regional threshold for VOC and NO_X emissions. VOCs and NO_X are precursors for ozone; thus, Project construction and operational activities would contribute a substantial volume of pollutants to the SCAB that could delay the attainment of federal and State ozone standards. As such, prior to mitigation the Project would conflict with Consistency Criterion No. 1.

- *Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phase.*

  The air quality conditions presented in the *2016 AQMP* are based on the growth forecasts identified by SCAG in its *2016-2040 RTP/SCS*. The *2016-2040 RTP/SCS* anticipates that development in the various incorporated and unincorporated areas within the SCAB will occur in accordance with the adopted general plans for these areas. As such, development projects that propose to change the land use and/or increase the development intensity of an individual property may result in increased stationary area source emissions and/or mobile source emissions when compared to the *2016 AQMP* assumptions. If a development project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the *AQMP*. (Urban Crossroads, 2019a, p. 67)

  Under existing conditions, the Project Site is designated for "Agriculture (AG)" and "Recreation/Open Space (R/OS)" land uses by the City of Chino's General Plan Land Use Map. The Project includes a request to change the existing General Plan land use designation for the Project Site from "AG" and

"R/OS" to "General Industrial (M2)," which, if approved, would result in a land use and development intensity that was not anticipated by the General Plan and, by extension, the growth models that were used in the *2016 AQMP*. Accordingly, the Project would exceed the assumptions in the *AQMP* based on the years of project buildout phase, and therefore would conflict with Consistency Criterion No. 2. (Urban Crossroads, 2019a, pp. 67-68)

In summary, because the proposed Project does not satisfy Consistency Criterion No. 1 or Consistency Criterion No. 2, the Project is determined to be inconsistent with the *2016 AQMP*. As such, the Project would conflict with and could result in the obstruction of the applicable AQMP and a significant impact would occur.

Threshold b: Would the Project 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?

The SCAB has a "non-attainment" designation for ozone (1- and 8-hour) and particulate matter ($PM_{2.5}$ and PM_{10}) under existing conditions. Refer to Subsection 4.2.1D for more information on existing air quality conditions in the SCAB.

A. Construction Emissions Impact Analysis

Peak Project-related construction emissions are identical using either EMFAC2014 or EMFAC2017 methodology, and are summarized in Table 4.2-6, *Peak Construction Emissions Summary*. Detailed air model outputs are presented in Appendices 3.1 and 3.2 of *Technical Appendix B1* and Attachments A and B of *Technical Appendix B4*.

Table 4.2-6 Peak Construction Emissions Summary

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	10.92	229.04	88.08	0.37	8.04	4.25
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	10.78	217.07	87.17	0.39	9.36	4.64
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	11.31	238.44	90.60	0.45	10.42	4.96
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	11.90	262.05	94.42	0.51	11.67	5.32
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	11.23	242.29	90.06	0.40	8.44	4.36
2021 (Project Site Construction Process)	2.48	23.40	29.94	0.05	3.53	1.40
2022 (Project Site Construction Process)	68.45	99.12	127.59	0.47	30.19	9.31
Maximum Daily Emissions	**68.45**	**262.05**	**127.59**	**0.51**	**30.19**	**9.31**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019a, Table 3-5)

As shown in Table 4.2-5, peak construction-related emissions of VOC, CO, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project's construction activities would not emit substantial concentrations of these pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis. Project construction impacts related to emissions of VOC, CO, SO_X, PM_{10}, and $PM_{2.5}$ would be less than significant.

However, Project-related construction emissions of NO_X would exceed the applicable SCAQMD regional threshold. NO_X is a precursor for ozone, a pollutant for which the SCAB does not attain federal (NAAQS) or State (CAAQS) standards (Urban Crossroads, 2019a, pp. 14, 47). Accordingly, daily NO_X emissions during Project construction would violate the applicable SCAQMD regional threshold and would result in a considerable net increase of a criteria pollutant for which the SCAB is in nonattainment. This impact is significant and mitigation is required.

B. Operational Emissions Impact Analysis

Operation of the Project would result in emissions from area sources, energy sources, mobile sources, and on-site equipment. Area source emissions include evaporation of solvents in architectural coatings, organic compounds from consumer products, and fuel from landscape maintenance equipment. Energy source emissions include combustion emissions associated with natural gas and electricity as well as the application of the Title 24 Energy Efficiency standards. Mobile source emissions include emissions from vehicles and fugitive dust related to vehicular travel. On-site equipment emissions include emissions from cargo handling equipment such as yard goats. Refer to subsection 3.5 of the Project's Air Quality Impact Analysis (*Technical Appendix B1*) for a detailed discussion of the Project's potential emissions due to area sources, energy sources, mobile sources, and on-site equipment. (Urban Crossroads, 2019a, pp. 48-52)

The Project's operational emissions are presented in Table 4.2-7, *Peak Operational Emissions Summary (EMFAC2014)* and Table 4.2-8, *Peak Operational Emissions Summary (EMFAC2017)*. Detailed air model outputs are presented in Appendix 3.5 of *Technical Appendix B1* and Appendix A of *Technical Appendix B2*. As shown in Table 4.2-7 and Table 4.2-8, peak operational-related emissions of CO, SO_X, and particulate matter (PM_{10} and $PM_{2.5}$) would not exceed the applicable SCAQMD regional thresholds. Accordingly, Project operational activities would not emit substantial concentrations of these pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis. Impacts associated with Project operational emissions of CO, SO_X, PM_{10} and $PM_{2.5}$ would be less than significant and mitigation is not required. (Urban Crossroads, 2019a, p. 52)

However, Project operational VOC and NO_X emissions, which primarily are emitted from consumer products and vehicle tailpipes, respectively, would exceed the applicable SCAQMD regional threshold. VOCs and NO_X are precursors for ozone, a pollutant for which the SCAB does not attain federal (NAAQS) or State (CAAQS) standards. Accordingly, the Project's daily VOC and NO_X emissions during long-term operation would violate the SCAQMD regional threshold for these pollutants and would result in a cumulatively-considerable net increase of a criteria pollutant for which the Project region is in nonattainment. This impact is significant and mitigation is required. (Urban Crossroads, 2019a, p. 52)

Table 4.2-7 Peak Operational Emissions Summary (EMFAC2014)

Operational Activities Summer Scenario	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Source	47.48	3.45e-03	0.38	3.00e-05	1.34e-03	1.34e-03
Energy Source	0.27	2.47	2.08	0.01	0.19	0.18
Mobile (Passenger Cars)	6.89	10.25	129.77	0.41	40.03	10.76
Mobile (Trucks)	5.56	188.97	38.25	0.71	19.96	5.99
On-Site Equipment	1.09	12.37	6.19	0.03	0.42	0.38
Transport Refrigeration Units	0.53	4.27	6.53	9.00e-04	0.07	0.06
Total Maximum Daily Emissions	**61.82**	**218.33**	**183.19**	**1.16**	**60.67**	**17.39**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Operational Activities Winter Scenario	**Emissions (lbs/day)**					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Source	47.48	3.45e-03	0.38	3.00e-05	1.34e-03	1.34e-03
Energy Source	0.27	2.47	2.08	0.01	0.19	0.18
Mobile (Passenger Cars)	5.69	10.74	105.86	0.36	40.03	10.76
Mobile (Trucks)	5.73	191.54	41.37	0.70	19.96	6.00
On-Site Equipment	1.09	12.37	6.19	0.03	0.42	0.38
Transport Refrigeration Units	0.53	4.27	6.53	9.00e-04	0.07	0.06
Total Maximum Daily Emissions	**60.80**	**221.38**	**162.40**	**1.10**	**60.67**	**17.39**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019a, Table 3-7)

Table 4.2-8 Peak Operational Emissions Summary (EMFAC2017)

Operational Activities Summer Scenario	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Source	47.48	3.45e-03	0.38	3.00e-05	1.34e-03	1.34e-03
Energy Source	0.27	2.47	2.08	0.01	0.19	0.18
Mobile (Passenger Cars)	10.11	7.71	130.80	0.37	40.00	10.73
Mobile (Trucks)	3.80	153.35	33.98	0.57	20.75	6.75
On-Site Equipment	1.09	12.37	6.19	0.03	0.42	0.38
Transport Refrigeration Units	0.53	4.27	6.53	9.22e-04	0.07	0.07
Total Maximum Daily Emissions	**63.28**	**180.17**	**179.96**	**0.99**	**61.42**	**18.11**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**
Operational Activities Winter Scenario	**Emissions (lbs/day)**					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Source	47.48	3.45e-03	0.38	3.00e-05	1.34e-03	1.34e-03
Energy Source	0.27	2.47	2.08	0.01	0.19	0.18
Mobile (Passenger Cars)	9.22	8.09	107.99	0.34	40.00	10.73
Mobile (Trucks)	3.55	157.99	28.84	0.57	20.71	6.73
On-Site Equipment	1.09	12.37	6.19	0.03	0.42	0.38
Transport Refrigeration Units	0.53	4.27	6.53	9.22e-04	0.07	0.07
Total Maximum Daily Emissions	**62.15**	**185.19**	**152.00**	**0.95**	**61.38**	**18.09**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019d, Table 4)

Threshold c: Would the Project expose sensitive receptors to substantial pollutant concentrations?

A. Localized Criteria Pollutant Analysis

1. Construction Analysis

Based on the number of pieces of construction equipment the Project Applicant expects to reasonably use to construct the Project (see Table 3-2 in EIR Section 3.0), approximately 5.0 acres per day would be disturbed during soil importing activities and Project grading activities. During construction, five scrapers would be capable of grading 5.0 acres per day. Sensitive receptors near the Project Site and Excess Fill Dirt Sites Nos. 1 through 5 include existing and future residential homes, a park, an equestrian center (where a caretaker could remain for 24 hours), Prado Regional Park, and a women's correctional facility; these sensitive receptors would be located between 75 feet and 3,594 feet from construction activities on-site and/or at the excess fill dirt sites. Peak Project construction localized emissions results are identical using either EMFAC2014 or EMFAC2017 methodology and are summarized in Table 4.2-9, *Peak Construction Localized Emissions Summary*. As shown on Table 4.2-9, the Project's localized NO_X, CO, and particulate matter (PM_{10} and $PM_{2.5}$) emissions would not exceed applicable SCAQMD thresholds during Project construction.

Table 4.2-9 Peak Construction Localized Emissions Summary

Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1				
Project Site Rough Grading	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**66.07**	**47.65**	**4.83**	**2.77**
SCAQMD Localized Threshold	291	2,700	43	11
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3				
Project Site Rough Grading	**Emissions (lbs/day)**			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**66.07**	**47.65**	**4.83**	**2.77**
SCAQMD Localized Threshold	278	2,384	24	10
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4				
Project Site Rough Grading	**Emissions (lbs/day)**			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**66.07**	**47.65**	**4.83**	**2.77**
SCAQMD Localized Threshold	270	2,193	16	9
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5				
Project Site Rough Grading	**Emissions (lbs/day)**			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**66.07**	**47.65**	**4.83**	**2.77**
SCAQMD Localized Threshold	357	4,567	72	18
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2				
Project Site Rough Grading	**Emissions (lbs/day)**			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**66.07**	**47.65**	**4.83**	**2.77**
SCAQMD Localized Threshold	291	2,700	43	11
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
On-Site Grading (Post Dirt Import)				
On-Site Grading (Post Dirt Import)	**Emissions (lbs/day)**			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**23.22**	**28.90**	**3.27**	**1.33**
SCAQMD Localized Threshold	295	2,796	322	170
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019a, Table 3-12)

Accordingly, Project construction would not expose any sensitive receptors in the vicinity of the Project Site or excess fill dirt sites to substantial criteria pollutant concentrations. Impacts would be less than significant and no mitigation would be required. (Urban Crossroads, 2019a, pp. 54-62)

2. Operational Analysis

As shown in Table 4.2-10, *Peak Operational Localized Emissions Summary (EMFAC2014)* and Table 4.2-11, *Peak Operational Localized Emissions Summary (EMFAC2017)*, Project operation would not exceed the applicable SCAQMD localized emission thresholds for NO_X, CO, or particulate matter (PM_{10} and $PM_{2.5}$) emissions. Accordingly, operation of the Project would not expose any sensitive receptors in the vicinity of the Project Site to substantial criteria pollutant concentrations. Impacts would be less than significant and no mitigation is required. (Urban Crossroads, 2019a, pp. 62-63)

Table 4.2-10 Peak Operational Localized Emissions Summary (EMFAC2014)

Operational Activity	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**39.30**	**44.97**	**12.51**	**3.85**
SCAQMD Localized Threshold	270	2,193	78	41
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019a, Table 3-13)

Table 4.2-11 Peak Operational Localized Emissions Summary (EMFAC2017)

Operational Activity	Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	**34.92**	**44.74**	**12.59**	**3.92**
SCAQMD Localized Threshold	270	2,193	78	41
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019d, Table 6)

B. CO Hot Spot Impact Analysis

A CO "hot spot" is an isolated geographic area where localized concentrations of CO exceeds the CAAQS one-hour (20 parts per million) or eight-hour (9 parts per million) standards. A Project-specific CO "hot spot" analysis was not performed because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD's *2003 AQMP* and the 1992 Federal Attainment for Carbon Monoxide Plan (1992 CO Plan). As identified in the SCAQMD's *2003 AQMP* and the 1992 CO Plan, peak CO concentrations in the SCAB were the byproduct of unusual meteorological and topographical conditions and were not the result of traffic congestion. For context, the CO "hot spot" analysis performed for the *2003 AQMP* recorded a CO concentration of 9.3 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (8.6 parts per million) were attributable to

ambient air concentrations. In comparison, the busiest intersections in the Project Site vicinity would not experience peak congestion levels or ambient CO concentrations comparable to the conditions observed at the Long Beach Boulevard/Imperial Highway intersection. Furthermore, CO concentrations in the Project vicinity have steadily declined as indicated by historical emissions data presented in subsection 4.2.1.D (refer also to Table 2-19 of the Project's Air Quality Impact Analysis, which is included as *Technical Appendix B1*). Data from several air districts/studies indicate that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour – or 24,000 vehicles per hour where vertical and/or horizontal air does not mix – in order to generate a significant CO impact. The Project would not produce the volume of traffic required to generate a CO hotspot based on the referenced studies. Based on the relatively low traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project Site vicinity, the Project's operation is not expected to cause or contribute to a CO "hot spot." (Urban Crossroads, 2019a, pp. 63-65) Impacts would be less than significant and mitigation is not required.

C. Toxic Air Contaminant Emissions Impact Analysis

Based on the typical operations at cross-dock industrial facilities with loading bays, which do not include smoke stacks or other stationary point-sources of air pollutant emissions, the Project is not expected to result in stationary emissions of toxic air contaminants. However, the Project's construction, including the soil excavation and export activities at the excess fill dirt sites that would last between approximately six and 55 working days depending on the specific excess fill dirt site, and operational activities would generate/attract diesel-fueled trucks. Diesel-fueled trucks produce DPM, which is a toxic air contaminant and is known to be associated with acute and chronic health hazards – including cancer. Project-related DPM health risks are summarized below. Detailed air dispersion model outputs and risk calculations are presented in Appendix 2.4 of *Technical Appendix B2* and Attachment D of *Technical Appendix B4*.

1. Construction Impacts

At the Maximally Exposed Individual Receptor (MEIR), which is a caretaker residence at an equestrian center located approximately 135 feet south of Excess Fill Dirt Site Nos. 1 and 2, the maximum incremental cancer risk attributable to the DPM emissions from Project construction is calculated to be 2.03 in one million and would not exceed the SCAQMD cancer risk threshold of 10 in one million. Also, at the MEIR, the non-cancer health risk index attributable to the proposed Project's construction would be 0.05, which would not exceed the SCAQMD non-cancer health risk index of 1.0. (Urban Crossroads, 2019b, p. 26) Accordingly, the Project's construction activities would not directly cause or contribute in a cumulatively-considerable manner to the exposure of residential receptors to substantial DPM emissions. All other locations where receptors could remain for 24 hours adjacent to and in the vicinity of Project construction activities would be impacted to a lesser degree than the MEIR. Therefore, Project-related DPM emissions during construction would result in a less-than-significant impact to sensitive receptors.

2. Operational Impacts

At the MEIR for Project operations, which is a residential use located at the southeast corner of Central Avenue and Fairfield Ranch Road (more than 7,000 feet from the Project Site), the maximum incremental cancer risk attributable to the operational DPM emissions from trucks traveling to/from the Project Site is 1.03

(EMFAC2014) or 1.09 (EMFAC2017) in one million and would not exceed the SCAQMD cancer risk threshold of 10 in one million. Also, at the MEIR, the non-cancer health risk index attributable to Project operational activities would be 0.0004 (EMFAC2014 and EMFAC2017), which would not exceed the SCAQMD non-cancer health risk index of 1.0. The MEIR location experiences the greatest potential exposure to Project-related DPM emissions due to meteorological conditions and the anticipated truck travel patterns anticipated for Project operations. All other locations where receptors could remain for 24 hours adjacent to and in the vicinity of the Project site and the Project's primary truck route – even located closer to the Project site than the MEIR – would be impacted to a lesser degree than the MEIR. (Urban Crossroads, 2019b, p. 26) Accordingly, the Project's long-term operations would not directly cause or contribute in a cumulatively-considerable manner to the exposure of residential receptors to substantial DPM emissions. Therefore, Project operations would result in a less-than-significant impact to residential receptors.

At the Maximally Exposed Individual Worker (MEIW), which is at an existing industrial warehouse use (located immediately adjacent to the north of the Project Site), the maximum incremental cancer risk attributable to the DPM emissions from trucks traveling to/from the Project Site is 0.31 (EMFAC2014) or 0.36 (EMFAC2017) in one million and would not exceed the SCAQMD cancer risk threshold of 10 in one million. Also, the non-cancer health risk index attributable to the proposed Project would be 0.0009 (EMFAC2014) or 0.001 (EMFAC2017), which would not exceed the SCAQMD non-cancer health risk index threshold of 1.0. (Urban Crossroads, 2019b, pp. 26-27; Urban Crossroads, 2019d, p. 8) Places of business located further than immediately adjacent to the Project Site would be impacted to a lesser degree. Accordingly, the Project's long-term operations would not directly cause or contribute in a cumulatively-considerable manner to the exposure of worker receptors near the Project Site or its primary truck routes to substantial DPM emissions. Impacts to worker receptors would be less than significant.

At the Maximally Exposed Individual School Child (MEISC), which is at Cal Aero Preserve Academy (located approximately 2 miles (in direct linear distance) northeast of the Project Site), the maximum incremental cancer risk attributable to the DPM emissions from trucks traveling to/from the Project Site is 0.03 (EMFAC2014) or 0.04 (EMFAC2017) in one million and would not exceed the SCAQMD cancer risk threshold of 10 in one million. Also, the non-cancer health risk index attributable to the proposed Project would be 0.00006 (EMFAC2014) or 0.00007 (EMFAC2017), which would not exceed the SCAQMD non-cancer health risk index threshold of 1.0. (Urban Crossroads, 2019b, p. 27; Urban Crossroads, 2019d, p. 8) School facilities located further from the Project's activities than 2 miles would be impacted to a lesser degree. Accordingly, the Project's long-term operations would not directly cause or contribute in a cumulatively-considerable manner to the exposure of school children receptors near the Project Site or its primary truck routes to substantial DPM emissions. Impacts to school children receptors would be less than significant.

Threshold d: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities on the Project Site and excess fill dirt sites, odors could be produced by construction equipment exhaust, and also on the Project Site, odors could also be produced from the pouring of concrete, application of asphalt, and/or architectural coatings. Any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities associated with the Project would be required to

comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. (Urban Crossroads, 2019a, pp. 68-69) Accordingly, the Project's construction would not create objectionable odors affecting a substantial number of people and impacts would be less than significant.

During long-term operation, the Project would operate as a cross-dock industrial facility, which is not typically associated with the emission of objectionable odors. Temporary outdoor refuse storage could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the occupant(s) of the proposed industrial buildings would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. (Urban Crossroads, 2019a, p. 69) As such, long-term operation of the Project would not create objectionable odors affecting a substantial number of people and impacts would be less than significant.

4.2.6 Cumulative Impact Analysis

SCAQMD's 2016 *AQMP* evaluates regional conditions within the Basin and sets regional emission significance thresholds for both construction and operation of development projects that apply to project-specific impacts and cumulatively-considerable impacts. Thus, if a project exceeds the SCAQMD regional emissions thresholds, project-specific impacts would also result in a cumulatively-considerable increase in emissions for those pollutants for which the basin in is non-attainment. As described under the analysis for Threshold "a," Project implementation would conflict with the SCAQMD's *2016 AQMP* because the Project would contribute to existing local air quality violations and exceed growth projections used in the *AQMP* (which would result in air pollutant emissions that were not anticipated in the *AQMP*). Based on the SCAQMD's regional emissions thresholds, the Project's conflict with the *AQMP* is determined to be a significant cumulatively-considerable impact.

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable. As discussed in the preceding analysis under Threshold "b," the SCAQMD regional thresholds for NO_X emissions would be exceeded during Project construction, and the SCAQMD regional thresholds for VOCs and NO_X emissions would be exceeded during Project operation. Therefore, the regional emissions of NO_X (during construction) and VOCs and NO_X (during operation) would be cumulatively-considerable and mitigation would be required.

As discussed under the analysis for "Threshold c," MATES-IV estimates an excess carcinogenic risk of 675.86 in one million for the Project area and DPM accounts for 68% of the total risk shown in MATES-IV. (Urban Crossroads, 2019a, p. 36). Because Project-related construction- and operational-related regional and localized air pollutant emissions – including DPM – would not exceed the applicable SCAQMD thresholds, the Project's contribution to human health risk is not considered cumulatively-considerable.

As indicated in the analysis of Threshold "d," above, there are no Project components that would expose a substantial number of sensitive receptors to objectionable odors. Because the Project's construction and operation would not create substantial and objectionable odors, there is no potential for odors from the Project

Site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, new offensive odors. Accordingly, implementation of the Project would result in a less-than-significant cumulative impact related to odors.

4.2.7 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project would emit air pollutants that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. The Project also would exceed the growth projections contained in SCAQMD's *2016 AQMP*. As such, the Project would conflict with and could obstruct implementation of the *AQMP*.

Thresholds b: Significant Direct and Cumulatively-Considerable Impact. Project-related activities would exceed the applicable SCAQMD regional thresholds for NO_X emissions during construction and VOCs and NO_X emissions during long-term operation. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB.

Threshold c: Less-than-Significant Impact. The Project's localized criteria pollution emissions during construction and operation would not exceed the applicable SCAQMD thresholds. The Project also would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds. Lastly, the Project would not cause or contribute to the formation of a CO "hot spot."

Threshold d: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

4.2.8 Mitigation

Although Project's construction-related particulate matter (PM_{10} and $PM_{2.5}$) emissions would be less than significant, the following mitigation measures would ensure compliance with SCAQMD Rules and minimize the Project's construction-related particulate matter emissions. These measures apply to the Project Site and the excess fill dirt sites.

MM 4.2-1 The Project's construction contractors shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Chino shall verify that the following notes are specified on the grading plan and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance.

a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project Site and excess fill dirt sites are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site.

b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.

c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access).

e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

f) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours.

g) Any soil binders to be utilized for erosion control shall be applied as soon as possible to reduce the disturbed area subject to erosion.

h) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.

i) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.2-2 The Project's construction contractors shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Chino shall verify that the following notes are included on the grading and building plans and within the construction management plan required in accordance with City of Chino Municipal Code Section 20.23.210. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Chino staff or its designee to confirm compliance.

a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.

b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM10-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

The following mitigation measure would reduce the Project's construction-related NO_X emissions. This measure applies to the Project Site and the excess fill dirt sites.

MM 4.2-3 Prior to grading permit issuance, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan also shall include the following notes. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino staff to confirm compliance.

a) During grading activity, all construction equipment with more than 150 horsepower shall be California Air Resources Board (CARB) Tier 3 Compliant or better.

b) Signs shall be placed in areas on the Project Site and on the excess fill dirt sites where haul trucks will operate, identifying applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the construction site supervisor and the CARB to report violations.

The following mitigation measures would reduce the Project's operational VOC and NO_X emissions. These measures apply to the Project Site.

MM 4.2-4 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City of Chino shall conduct a site inspection to ensure that the signs are in place.

MM 4.2-5 Prior to the issuance of a building permit, the Project Applicant or successor in interest shall provide documentation to the City of Chino demonstrating that the Project is designed to

exceed the California Energy Code (Title 24, Part 6) standards in effect at the time of building permit application submittal by three (3) percent and includes the energy efficiency design features listed below at a minimum.

a) Preferential parking locations for carpool, vanpool, EVs and CNG vehicles;

b) All outdoor cargo handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) shall be non-diesel-powered; and

c) All fixtures installed in restrooms and employee break areas shall be U.S. EPA Certified WaterSense or equivalent.

MM 4.2-6 Prior to the issuance of a certificate of occupancy, the Project Applicant or successor in interest shall provide documentation to the City of Chino demonstrating that occupants/tenants of the Project Site will be provided documentation on funding opportunities, such as the Carl Moyer Program, that provide incentives for using cleaner-than-required engines and equipment.

MM 4.2-7 Legible, durable, weather-proof signs shall be placed at driveways where delivery trucks exit onto public streets that direct truck drivers to designated truck routes. The City of Chino shall confirm the required signs are installed prior to issuance of an occupancy permit.

MM 4.2-8 Prior to the issuance of a shell building permit, the City of Chino shall confirm that building plans provide an electrical room sufficiently sized to hold an electrical panel(s) to support typical building operations as well as reasonably anticipated electrical hookups that may be needed at dock doors where the loading/unloading of trailers holding refrigerated/frozen goods would be expected to occur. Prior to the issuance of a building permit and/or tenant improvement permit for any building that contains refrigerated or freezer storage, an electrical hookup shall be provided at all dock doors that are designated for the loading/unloading of trailers holding refrigerated/frozen goods, for the purpose of plugging the refrigeration units installed on such trailers into the building's electrical system. If refrigerated/freezer warehouse space is not proposed, electrical hookups at dock doors will not be required.

4.2.9 Significance of Impacts After Mitigation

Threshold a: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Although Project localized emissions would not exceed SCAQMD localized emissions thresholds during construction or long-term operation, Project construction activities would exceed the SCAQMD regional threshold for NO_X emissions and Project operational activities would exceed the SCAQMD regional threshold for VOC and NO_X emissions. Although Mitigation Measures MM 4.2-3 through MM 4.2-8 would reduce the Project's construction-related emissions of NO_X and operational-related emissions of VOCs and NO_X, as discussed below the mitigation measures would not reduce emissions to below the SCAQMD Regional Thresholds for these pollutants. Additionally, the Project would exceed the growth assumptions for the Project site relied upon in the *2016 AQMP*, and no mitigation is available to address this impact. Therefore, Project impacts due to a conflict with the SCAQMD *2016 AQMP* would be significant and unavoidable on both a direct and cumulatively-considerable basis.

Threshold b: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Mitigation Measure MM 4.2-3 would require the Project's construction contractors to enforce idling time limitations and utilize construction equipment that meets minimum emissions standards in order to reduce the Project's construction-related NO_X emissions. However, the NO_X emissions are primarily due to on-road hauling trips related to soil import activity. Compliance with California Code of Regulations, Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, adopted in 2008 and titled "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles" and otherwise known as the "Truck and Bus Regulation" is mandatory in California. Pursuant to this State law, on-road diesel-fueled trucks are required to comply with various air quality standards, including but not limited to the type of fuel used, and engine model year stipulations. Compliance with State law is mandatory and inspections of on-road diesel trucks subject to applicable State laws are regularly conducted by CARB. As shown in Table 4.2-12, *Peak Construction Emissions Summary (with Mitigation)*, following implementation of Mitigation Measure MM 4.2-3 and compliance with mandatory State laws, Project construction-related emissions of NO_X would continue to exceed the per-day SCAQMD Regional Threshold for this pollutant. Therefore, this mitigation measure would not be able to reduce the Project's daily construction NO_X emissions to a level below significance. No additional feasible mitigation with a proportional nexus to the Project's impacts is available to further reduce the Project's construction-related NO_X emissions. As such, Project construction-related impacts due to emissions of NO_X would be a short-term, significant and unavoidable impact on a direct and cumulatively-considerable basis.

Table 4.2-12 Peak Construction Emissions Summary (with Mitigation)

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #1)	6.38	204.73	98.19	0.37	6.94	3.44
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #3)	6.24	192.75	97.29	0.39	8.27	3.84
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #4)	6.76	214.12	100.72	0.45	9.32	4.15
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #5)	7.35	237.74	104.54	0.51	10.57	4.52
2021 (Project Site Rough Grading and Concurrent Dirt Import and Grading from Excess Fill Site #2)	6.68	217.98	100.18	0.40	7.34	3.56
2021 (Project Site Construction Process)	1.21	21.74	34.65	0.05	3.45	1.41
2022 (Project Site Construction Process)	66.47	97.67	132.02	0.47	30.34	9.56
Maximum Daily Emissions	**66.47**	**237.74**	**132.02**	**0.51**	**30.34**	**9.56**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, 2019a, Table 3-6)

Mitigation Measures MM 4.2-4 through MM 4.2-8 would require design features to be incorporated into the Project that would reduce the Project's overall demand for energy resources and would reduce the Project's operational NO_X and VOC emissions (NO_X and VOCs are released during the combustion of certain types of energy resources). However, mobile source emissions account for approximately 83 percent, by weight, of the Project's total operational NO_X emissions. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within the City of Chino's jurisdictional authority and that are feasible for the City of Chino to enforce that have a proportional nexus to the Project's level of impact. In addition, 77 percent of VOC emissions are derived from consumer products (i.e., cleaning supplies, aerosols, etc.); therefore, because the Project Applicant cannot meaningfully control the use of consumer products by future building users, no feasible mitigation is available to reduce VOC emissions. (Urban Crossroads, 2019a, p. 52) As such, it is concluded that the Project's operational-related emissions of VOC and NO_X would exceed SCAQMD air quality standards on a daily basis. In addition, the Project's operational-related emissions of VOC and NO_X would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of VOC and NO_X are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

A recent Supreme Court of California decision, *Sierra Club v. County of Fresno (Friant Ranch)*, states that EIRs should relate a project's expected significant adverse air quality impacts to likely human health consequences or explain why it is not feasible at the time of preparing the EIR to provide such an analysis. Given that the proposed Project's implementation would result in a significant direct and cumulatively-considerable impact associated with NO_X emissions under short-term construction activities and VOC and NO_X emissions under long-term operating conditions, the potential health consequences associated with these air pollutants, as well as other air pollutants associated with the Project, were considered. Although as explained below it may be misleading and unreliable to attempt to specifically quantify the health risks associated with VOCs, NO_X, and other air pollutant emissions that would result from the Project, the Project's air quality impact analysis (*Technical Appendix B1 and B3*) and mobile source health risk assessment (*Technical Appendix B2 and B4*) provide extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation. Refer to these EIR appendices for additional information.

Specific to VOC, population-based studies suggest that VOCs can irritate the eyes, nose, and throat, cause difficulty breathing, nausea, and damage the central nervous system as well as other organs. Some VOCs also can cause cancer. Population-based studies suggest that long-term exposure to NO_X can cause an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants). Short-term exposure can result in resistance to air flow and airway contraction in healthy subjects. Exposure also can decrease lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals. These and other health effects associated with air pollutants that would be generated by the Project were previously described in this Subsection (refer to Subsection 4.2.1C, *Air Quality Pollutants and Associated Human Health Effects*). As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case

(hereafter, "Brief"), the SCAQMD – which has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State – indicated that quantifying specific health risks that may result from VOCs, NO_X, and other air pollutants from proposals like the Project would be unreliable and misleading due to the relatively small-scale of the Project (from a regional perspective), unknown variables related to pollutant generation/release and receptor exposure, and regional model limitations (Urban Crossroads, 2019c, pp. 13-16). Accordingly, current scientific, technological, and modeling limitations prevent accurate and quantifiable relation of the Project's VOC and NO_X emissions (and other air pollutant emissions) to likely health consequences for local and regional receptors.

4.3 BIOLOGICAL RESOURCES

This Subsection evaluates the potential for Project-related activities to adversely affect sensitive biological resources. The analysis in this Subsection is based, primarily, on information contained in a technical report prepared by Glenn Lukos Associates, Inc. (hereafter, "GLA") titled, "Biological Technical Report for Majestic Chino Heritage Project," and dated January 17, 2020 (GLA, 2020). The biological technical report is included as *Technical Appendix C* to this EIR.

The biological technical report addressed potential biological resources within the Project Site, off-site improvement area, and excess fill dirt sites and included the review of relevant literature, field surveys, and a geographic information system (GIS)-based analysis of vegetation communities. As part of field survey component of the biological technical report, GLA conducted: 1) field reconnaissance survey and vegetation mapping; 2) habitat assessments for special-status plant species; 3) habitat assessments for special-status wildlife species; 4) a focused breeding season survey for the burrowing owl; 5) focused surveys for the least Bell's vireo, and 6) a jurisdictional delineation. All research and field surveys conducted by GLA were performed in accordance with accepted scientific and technical standards and survey requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), and the California Native Plant Society (CNPS). (GLA, 2020, pp. 1, 8) Refer to *Technical Appendix C* for detailed descriptions of the survey dates, scopes of study, and research and survey methodologies used during preparation of the biological technical report.

4.3.1 EXISTING CONDITIONS

A. Vegetation Communities

1. Project Site

The Project Site is comprised entirely of ruderal/disturbed habitat; refer to Figure 4.3-1, *Existing Vegetation Map – Project Site & Off-Site Improvement Area*. The vegetation on the Project Site includes ornamental species that are remnants of the Site's former commercial dairy farm uses and weedy, non-native species that have spread across the Site since the completion of on-site demolition activities in 2016. (GLA, 2020, p. 22)

2. Off-Site Improvement Area

The Project's off-site improvement area is comprised of ornamental, developed, and ruderal/disturbed habitats. The ornamental habitat, which covers approximately 0.30-acre of the off-site improvement area, was planted and is maintained as part of the abutting golf course and is dominated by coyote brush (*Baccharis piluaris*), ornamental pine trees (*Pinus* sp.), and ornamental oak trees (*Quercus* sp.). The developed habitat, approximately 0.03-acre, is composed of an earthen road over the Cypress Channel and a concrete headwall structure (headwall, wingwalls, and bottom). The ruderal/disturbed habitat, approximately 0.01-acre, is composed entirely of non-native plant species. (GLA, 2020, p. 22) See Figure 4.3-1 for a map of the vegetation communities located within the off-site improvement area.

3. Excess Fill Dirt Sites

The excess fill dirt sites are covered primarily by ruderal/disturbed habitat; however, other vegetation communities are present on Excess Fill Dirt Site Nos. 1 and 4. The vegetation communities found on the excess fill dirt sites are illustrated on Figure 4.3-2 through Figure 4.3-5 and are summarized below.

- **Ruderal/Disturbed.** Excess Fill Dirt Site Nos. 2, 3, and 5 are covered entirely by ruderal/disturbed habitat. Approximately 39.1 acres of ruderal/disturbed habitat are present on Excess Fill Dirt Site No. 1 and approximately 11.8 acres of ruderal/disturbed habitat are present on Excess Fill Dirt Site No. 4. The ruderal/disturbed habitat found at all of the excess fill dirt sites is composed of weedy, non-native species and is routinely maintained (disked) for weed abatement. (GLA, 2020, pp. 23-27)

- **Freshwater Marsh/Disturbed Freshwater Marsh.** Approximately 4.5 acres of freshwater marsh/disturbed freshwater marsh transect the central-southern portion of Excess Fill Dirt Site No. 1 in a north-south orientation. This vegetation community is associated with a drainage course that bisects the Site but the habitat has been affected by long-standing agriculture activities on the property and contains numerous non-native plant species. (GLA, 2020, pp. 23-24)

- **Southern Willow Scrub.** Excess Fill Dirt Site No. 1 contains approximately 0.2-acre of southern willow scrub, which includes plant species such as black willow and salt cedar (GLA, 2020, pp. 23-24). This h

- **Coastal Sage Scrub.** Excess Fill Dirt Site No. 4 contains approximately 1.1 acres of coastal sage scrub along the southern and eastern boundaries of the Site. The coastal sage scrub area was planted as part of a habitat restoration effort associated with the adjacent Mill Creek Wetlands. (GLA, 2020, p. 26)

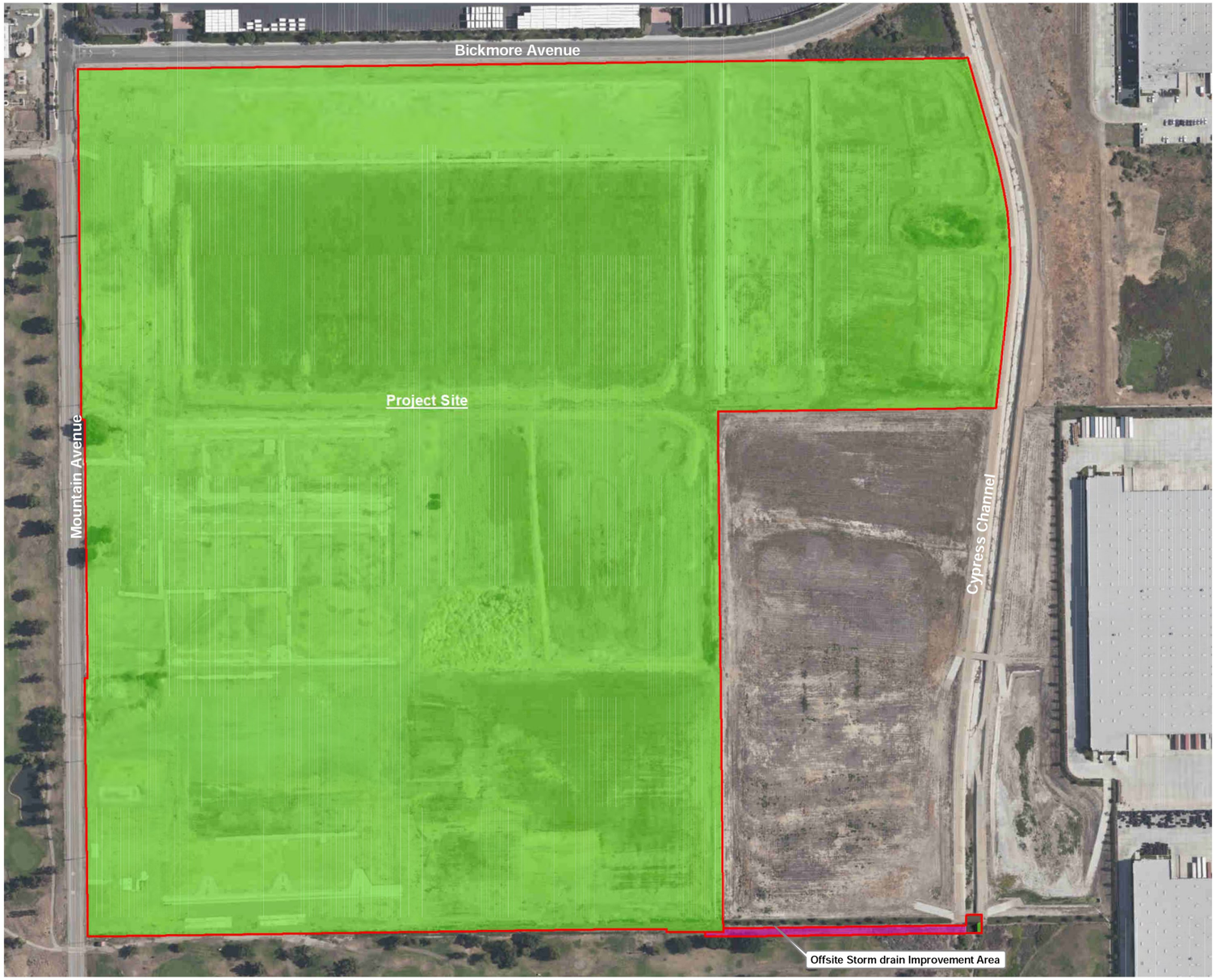
B. Special-Status Plants

No special-status plant species were observed within the Project Site, off-site improvement area, or any of the excess fill dirt sites and none are expected. The vast majority of the Project Site, off-site improvement area, and excess fill dirt sites were either agriculture or commercial dairy farm operations over a period of multiple decades and there is no potential for the lands to function as a natural vegetation community that would support special-status plants. The coastal sage scrub that was observed within Excess Fill Dirt Site No. 4 was planted as part of a habitat restoration effort associated with the adjacent Mill Creek Wetlands and no special-status species were observed within the coastal sage scrub habitat. (GLA, 2020, pp. 29, 33)

C. Special-Status Wildlife

Three special-status wildlife species were detected during field surveys conducted by GLA. The observed species, and their distribution, is described below.

- **Burrowing Owl**. The burrowing owl is a California Species of Special Concern that occupies abandoned ground squirrel burrows within grassland, lowland scrub, and agricultural lands, as well as artificial structures such as culverts and underpasses. A pair of burrowing owls was detected on

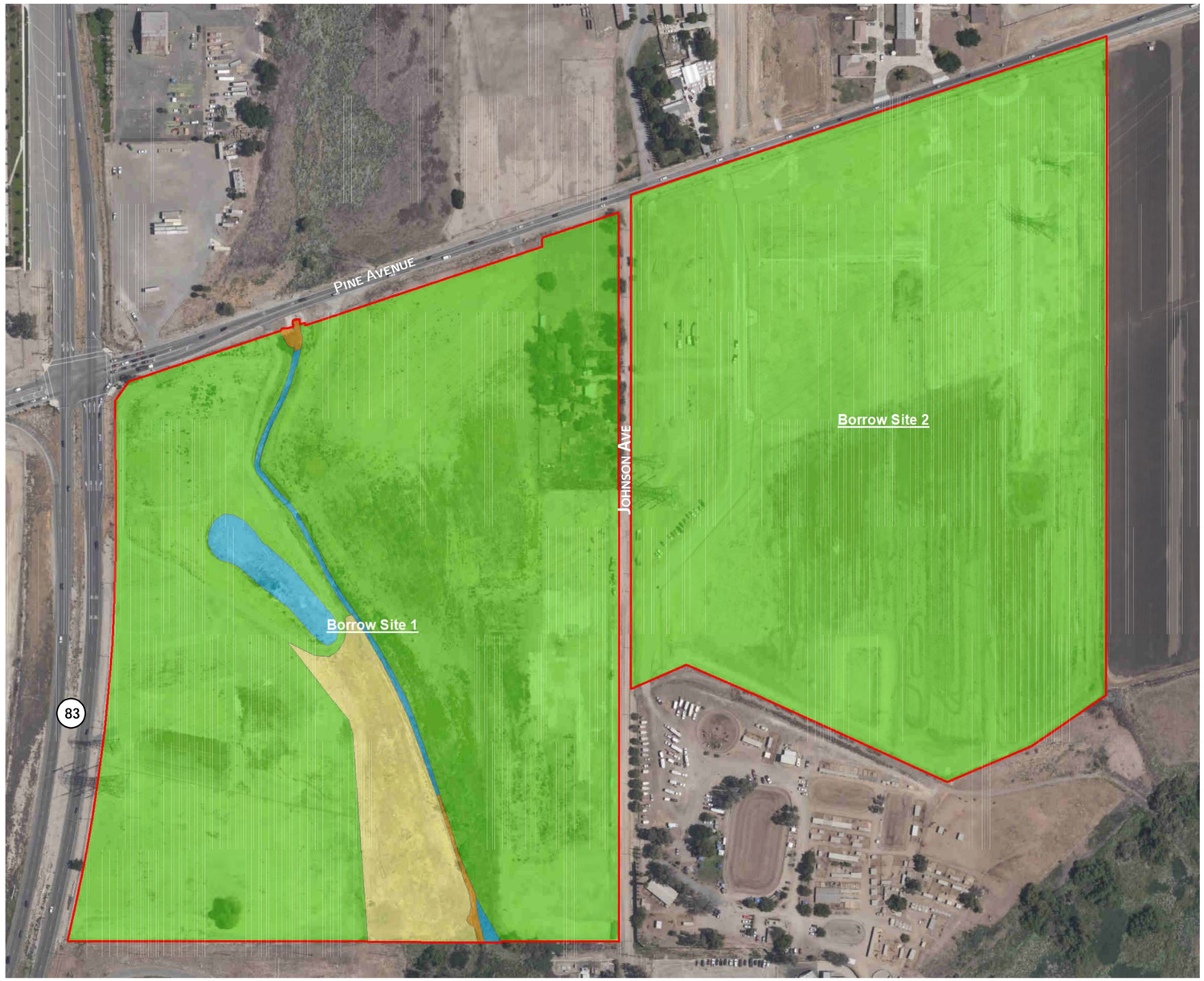


Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3-1

EXISTING VEGETATION MAP - PROJECT SITE & OFF-SITE IMPROVEMENT AREA



Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3-2

EXISTING VEGETATION MAP - EXCESS FILL DIRT SITE NOS. 1 & 2

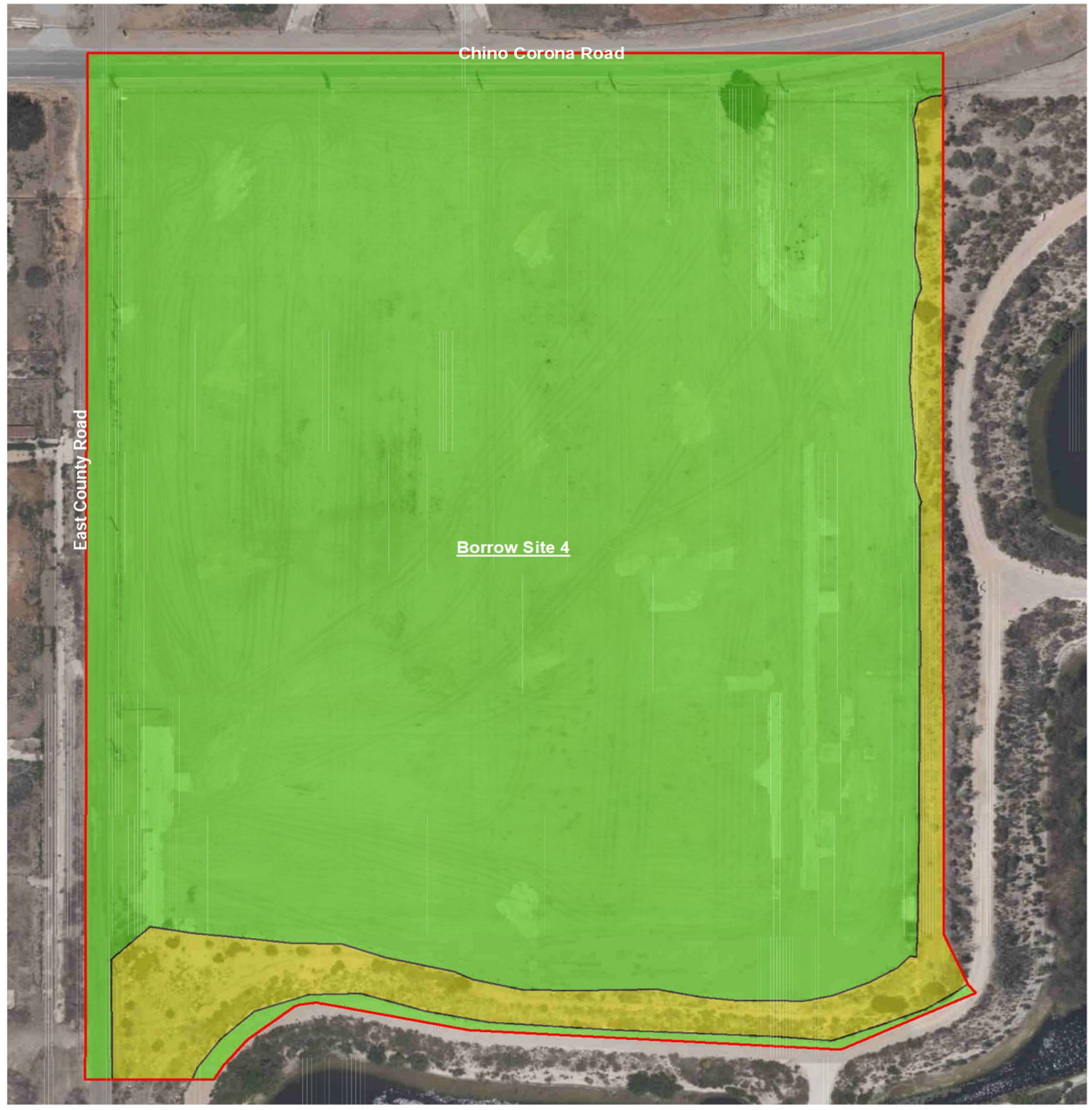


Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3-3

EXISTING VEGETATION MAP - EXCESS FILL DIRT SITE NO.3



Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3-4

EXISTING VEGETATION MAP - EXCESS FILL DIRT SITE NO.4



Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3-5

EXISTING VEGETATION MAP - EXCESS FILL DIRT SITE NO.5

the Project site, within the remnants of one of the former on-site dairies. The owls were assumed to be a breeding pair based upon their presence on the site during the breeding season. No burrowing owls were detected within the off-site improvement area or at any of the excess fill dirt sites; however, all of the excess fill dirt sites contain suitable habitat for the species. (GLA, 2020, pp. 41, 50)

- **Least Bell's Vireo.** The least Bell's vireo is a Federal and California Endangered species that occupies dense riparian habitats, including southern willow scrub, mule fat scrub, and riparian forest. The least Bell's vireo was detected on Excess Fill Dirt Site No. 1; the species is assumed to nest within the approximately 0.2-acre of southern willow scrub habitat on the Site and to forage within the approximately 4.5 acres of freshwater marsh/disturbed freshwater marsh on the Site. The species also was detected adjacent to Excess Fill Dirt Site Nos. 2 and 5; but, was not found on Site Nos. 2 or 5 and is not expected to use either site due to a lack of suitable habitat. The species has not been detected within – and is not expected to use – the Project Site, off-site improvement area, or Excess Fill Dirt Site Nos. 3 and 4 due to a lack of suitable or high quality habitat. (GLA, 2020, pp. 38, 41)

- **Tri-colored Blackbird.** The tri-colored blackbird is a California threatened species that lives in colonies that require nearby water and open-range foraging habitats (such as natural grasslands, woodlands, or agricultural cropland). The tri-colored blackbird was observed foraging within and adjacent to Excess Fill Dirt Site No. 4. A known colony of the tri-colored blackbirds live within the Mill Creek Wetlands which are located adjacent to Excess Fill Dirt Site No. 4. The tri-colored blackbird was not detected on the Project Site, off-site storm drain improvement area, or Excess Fill Dirt Sites Nos. 1, 2, 3, or 5 and is not expected to occur within these areas due to a lack of suitable foraging or breeding habitat. (GLA, 2020, pp. 38, 42)

Research conducted by GLA suggested that several special-status species that were not detected within the Project Site, off-site improvement area, and/or the excess fill dirt sites have the potential to use the respective sites, including two special-status songbird species (yellow warbler and yellow-breasted chat), five special-status raptor species (white-tailed kite, bald eagle, golden eagle, Swainson's hawk, and American peregrine falcon) and five special-status bat species (big tree-tailed bat, pallid bat, western mastiff bat, western yellow bat, and Yuma myotis). However, based on the existing physical conditions observed by GLA, only the following of the aforementioned species have the potential to occur within Project Site, off-site improvement area, and/or the excess fill dirt sites: the yellow warbler and yellow-breasted chat have the potential to occur on Excess Fill Dirt Site No. 1 (within the southern willow scrub and freshwater marsh/disturbed freshwater marsh habitats); the white-tailed kite has the potential occur on the Project Site (nesting in the site's large ornamental trees and foraging on-site); the bald eagle, golden eagle, Swainson's hawk, and American peregrine falcon have the potential to use Project Site, off-site improvement area, and all of the excess fill dirt sites for foraging (but not for nesting); and the pallid, western mastiff, and western yellow bats have the potential, albeit low, to roost on the Project Site and Excess Fill Dirt Site No. 5 (within the large trees present on the sites). (GLA, 2020, pp. 34-43)

D. Nesting Birds

No nests were observed during field surveys; however, the Project Site, off-site improvement area, and excess fill dirt sites includes trees, ornamental vegetation, and open ground that can provide foraging and nesting habitat for songbirds. Additionally, the Project Site, off-site improvement area, and excess fill dirt sites have the potential to support nesting burrowing owls due to the presence of ground squirrel burrows and suitable habitat for the species. Due to the existing level of ground disturbance at the Project Site, off-site improvement area, and excess fill dirt sites, the potential for nesting raptors at these sites – other than the burrowing owl – is low. (GLA, 2020, pp. 43, 44)

E. Jurisdictional Waters and Wetlands

GLA observed three drainage features under the jurisdiction of the U.S. Army Corps of Engineers (Corps), CDFW, and/or Regional Water Quality Control Board (RWQCB) during field surveys. The jurisdictional features observed by GLA

- **Cypress Channel.** The Cypress Channel, which is a concrete-lined, concrete-bottomed flood control channel owned by the San Bernardino County Flood Control District, is located adjacent to the Project Site and the off-site improvement area. The Project's proposed storm drain line would terminate at and discharge to the Cypress Channel. Approximately 0.01-acre of Corps, RWQCB, and CDFW jurisdiction area is located within the off-site improvement area; refer to Figure 4.3-6 and Figure 4.3-7. (GLA, 2020, pp. 44-45)

- **Drainage 1.** Drainage 1 is an intermittent channel that enters Excess Fill Dirt Site No. 1 beneath existing Pine Avenue flows in a north-to-south direction for approximately 1,645 feet before leaving Excess Fill Dirt Site No. 1. Approximately 4.6 acres of Corps and RWQCB jurisdiction area and approximately 4.8 acres of CDFW jurisdiction area is located within Excess Fill Dirt Site No. 1; refer to Figure 4.3-8 and Figure 4.3-9. (GLA, 2020, p. 45)

- **Ditch 1.** Ditch 1 is a manmade roadside ditch located parallel to Johnson Avenue within Excess Fill Dirt Site No. 2. Ditch 1 enters Excess Fill Dirt Site No. 2 beneath Pine Avenue and flows north-to-south for approximately 2,366 feet before leaving the Site. Approximately 0.3-acre of RWCB and CDFW jurisdiction area is located within Excess Fill Dirt Site No. 2; refer to Figure 4.3-8 and Figure 4.3-9. No Corps jurisdiction area is located within Excess Fill Dirt Site No. 2, as Ditch 1 is not regulated by Title 33 of the Code of Federal Regulations, Section 328.3. (GLA, 2020, p. 45)

4.3.2 Applicable Environmental Plans, Policies, and Regulations

The Project Site, off-site improvement area, and excess fill dirt sites are subject to State of California (hereafter, "State") and federal regulations that were developed to protect natural resources, including: State and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the State or federal governments; and other special-status vegetation communities. Provided on the following pages is an overview of the federal, State, and regional laws, regulations, and requirements



Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3.6

CYPRESS CHANNEL - CORPS & RWQCB JURISDICTION AREA

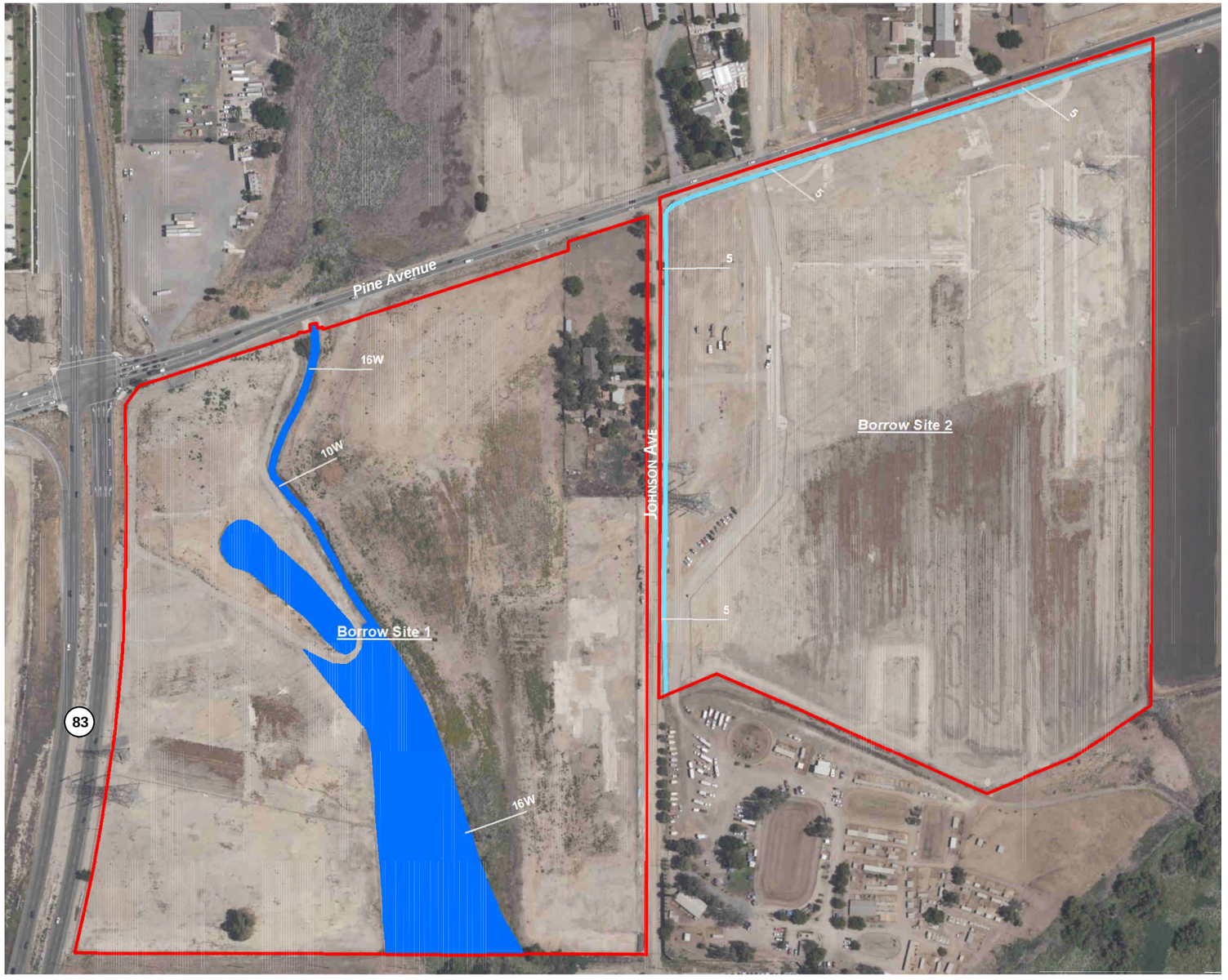


Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3.7

CYPRESS CHANNEL - CDFW JURISDICTION AREA



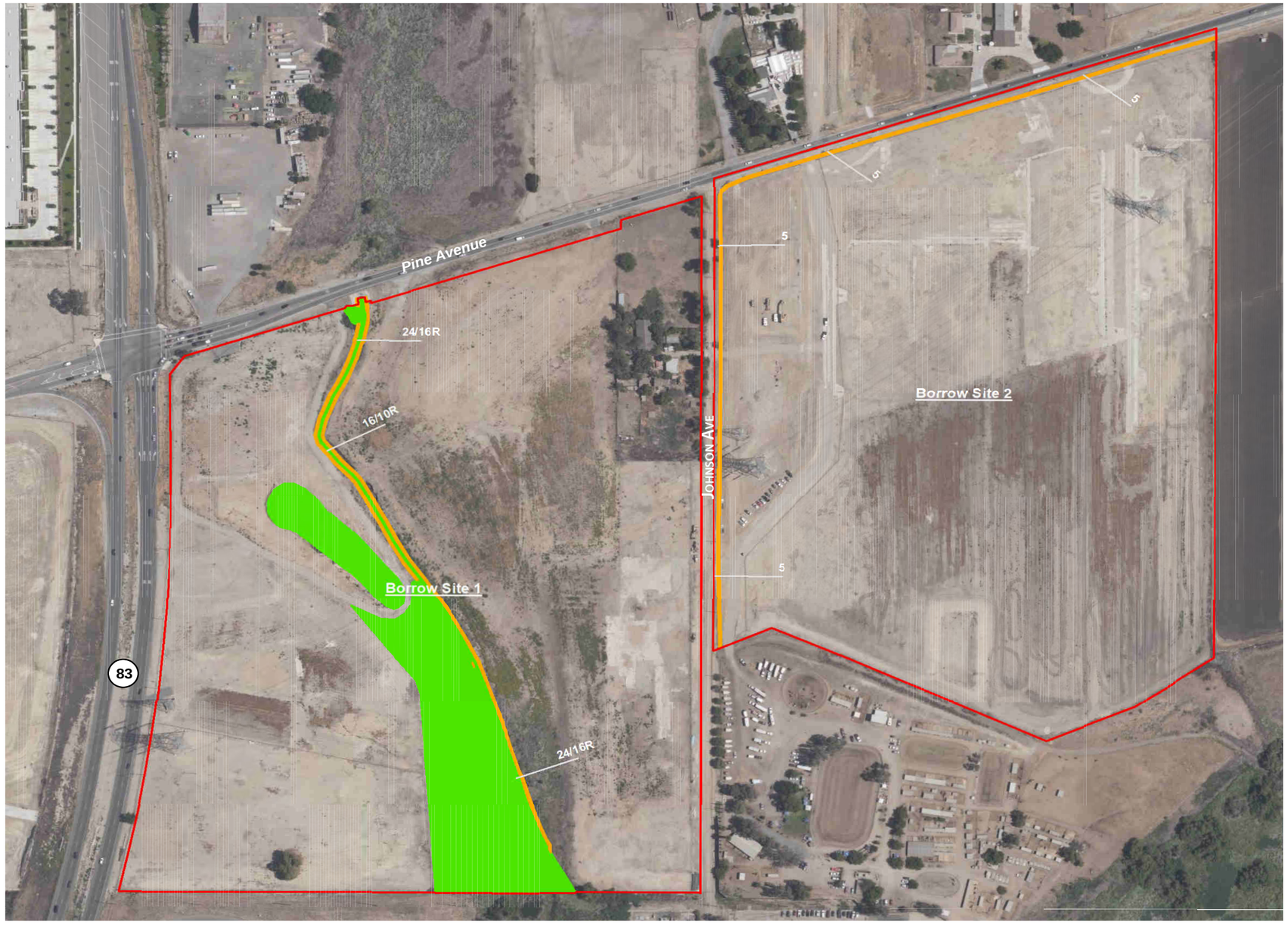
Study Area Boundary
RWQCB Non-Wetland Waters Jurisdiction Only
Corps/RWQCB Wetland Waters
5 Width in Feet
W indicates Borrow Site 1 Wetland in Channel

Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3.8

DRAINAGE 1 & DITCH 1 - CORPS & RWQCB JURISDICTION AREA



Source(s): Glenn Lukos Associates (01-17-2020)

Not to Scale

Figure 4.3.9

DRAINAGE 1 & DITCH 1 - CDFW JURISDICTION AREA

that are applicable to the Project Site, off-site improvement area, and excess fill dirt sites based on its geographic location and the biological resources observed by GLA.

A. Federal Plans, Policies, and Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. (USFWS, 2013)

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land. Protection from commercial trade and the effects of federal actions do apply for plants. (USFWS, 2013)

Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation, the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the USFWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species. (USFWS, 2013)

Section 10 of the ESA may be used by landowners including private citizens, corporations, tribes, States, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps. HCPs may benefit not only landowners but also species by securing and managing important habitat and by addressing economic development with a focus on species conservation. (USFWS, 2013)

As noted earlier in this Subsection, the least Bell's vireo – a federally-listed endangered species – was detected within Excess Fill Dirt Site No. 1. The Prado Basin is a known important habitat area for the least Bell's vireo and the USFWS has designated large portions of the Basin as "critical habitat" for the species. The off-site improvement area and portions of Excess Fill Dirt Site Nos. 1, 3, and 5 are located within the USFWS-designated "critical habitat" for the least Bell's vireo, as shown on Figure 4.3-10, *USFWS Critical Habitat for the Least Bell's Vireo*.

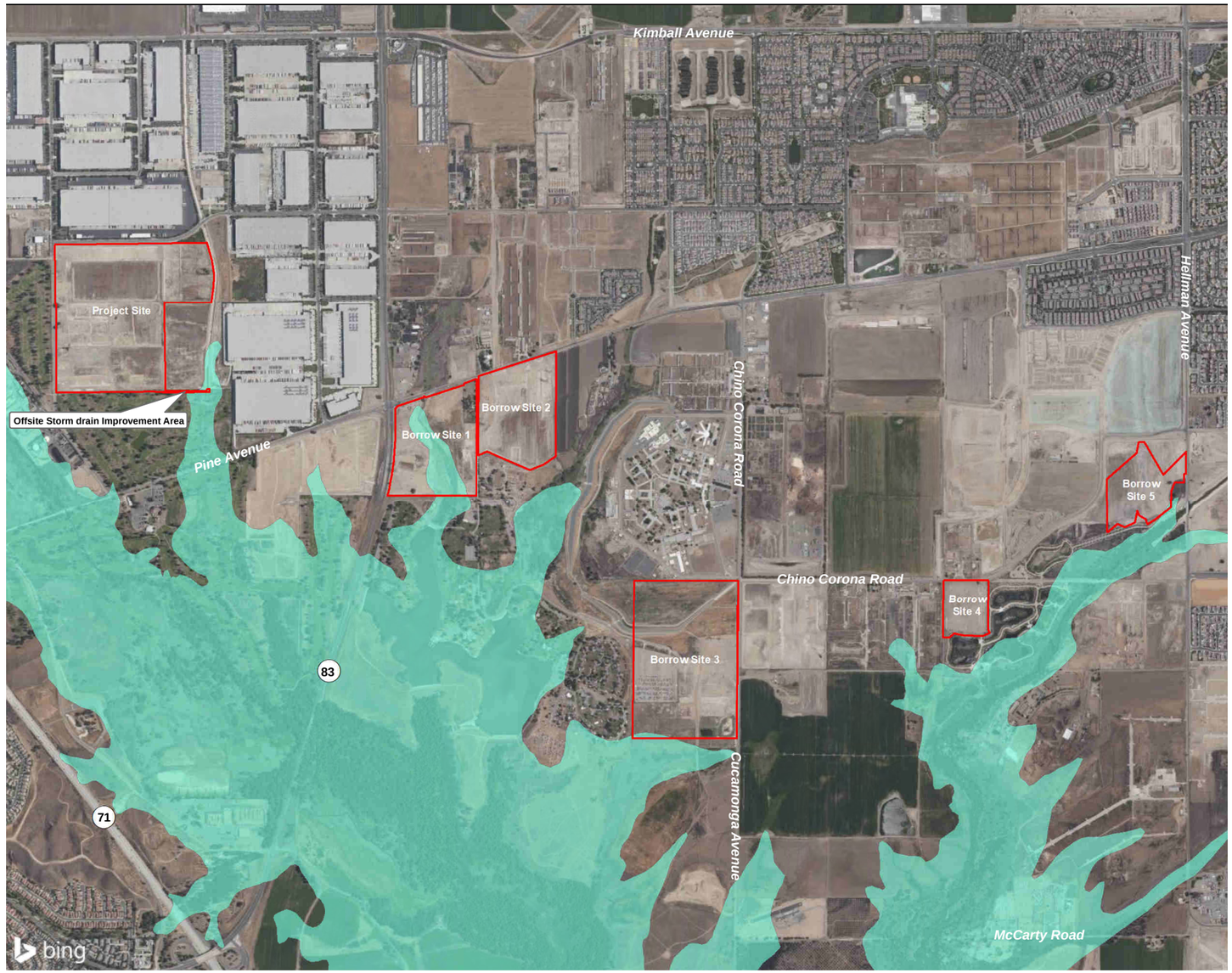
2. Clean Water Act Section 401

Clean Water Act (CWA) Section 401 water quality certification provides states and authorized tribes with an effective tool to help protect water quality, by providing them an opportunity to address the aquatic resource impacts of federally issued permits and licenses. Under Section 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state or tribe where the discharge would originate has granted or waived Section 401 certification. The central feature of CWA § 401 is the state or tribe's ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit or license to be issued consistent with any conditions of the certification. Denying certification prohibits the federal permit or license from being issued. Waiver allows the permit or license to be issued without state or tribal comment. States and tribes make their decisions to deny, certify, or condition permits or licenses based in part on the proposed project's compliance with Environmental Protection Agency (EPA)-approved water quality standards. In addition, states and tribes consider whether the activity leading to the discharge will comply with any applicable effluent limitation guidelines, new source performance standards, toxic pollutant restrictions, and other appropriate requirements of state or tribal law. (EPA, 2019f)

Many States and tribes rely on Section 401 certification to ensure that discharges of dredge or fill material into a water of the U.S. do not cause unacceptable environmental impacts and, more generally, as their primary regulatory tool for protecting wetlands and other aquatic resources. However, Section 401 is limited in scope and application to situations involving federally-permitted or licensed activities that may result in a discharge to a water of the U.S. If a federal permit or license is not required, or would authorize impacts only to waters that are not waters of the U.S., the activity is not subject to the CWA Section 401. (EPA, 2019f)

3. Clean Water Act Section 404

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Wetlands subject to Clean Water Act Section 404 are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities). (EPA, 2019g)



Study Area Boundary

Least Bell's Vireo Critical Habitat

Source(s): Glenn Lukos Associates (01-09-2020)

Not to Scale

Figure 4.3.10

USFWS CRITICAL HABITAT FOR THE LEAST BELL'S VIREO

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment; or (2) the nation's waters would be significantly degraded. Applications for permits must, to the extent practicable: (l) demonstrate steps have been taken to avoid wetland impacts; (2) demonstrate that potential impacts on wetlands have been minimized; and (3) provide compensation for any remaining unavoidable impacts. Proposed activities are regulated through a permit review process. (EPA, 2019g)

An individual permit is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers (ACOE), which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. States also have a role in Section 404 decisions, through state program general permits, water quality certification, or program assumption. (EPA, 2019g)

4. Executive Order 11990 – Protection of Wetlands

The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. (FEMA, 2019) The Order applies to:

- Acquisition, management, and disposition of federal lands and facilities construction and improvement projects which are undertaken, financed, or assisted by federal agencies;
- Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities. (FEMA, 2019)

The procedures require the determination of whether or not the proposed project will be in or will affect wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. The procedures include a requirement for public review of assessments. (FEMA, 2019)

5. Migratory Bird Treaty Act (16 USC Section 703-712)

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds. (USFWS, 2018)

B. State Plans, Policies, and Regulations

1. California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The California Department of Fish and Wildlife (CDFW) works with interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met. (CDFW, 2019b)

Section 2081 subdivision (b) of the California Fish and Game Code (CFGC) allows CDFW to authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits (ITPs). (CDFW, 2019b)

If a species is listed by both the federal ESA and CESA, CFGC Section 2080.1 allows an applicant who has obtained a federal incidental take statement (federal Section 7 consultation) or a federal incidental take permit (federal Section 10(a)(1)(B)) to request that the Director of CDFW find the federal documents consistent with CESA. If the federal documents are found to be consistent with CESA, a consistency determination (CD) is issued and no further authorization or approval is necessary under CESA. (CDFW, 2019b)

A Safe Harbor Agreement (SHA) authorizes incidental take of a species listed as endangered, threatened, candidate, or a rare plant, if implementation of the agreement is reasonably expected to provide a net conservation benefit to the species, among other provisions. SHAs are intended to encourage landowners to voluntarily manage their lands to benefit CESA-listed species. California SHAs are analogous to the federal safe harbor agreement program and CDFW has the authority to issue a consistency determination based on a federal safe harbor agreement. (CDFW, 2019b)

Two State-endangered species were observed by GLA: the least Bell's vireo was detected within Excess Fill Dirt Site No. 1 and the tri-colored blackbird was detected foraging within (and adjacent to) Excess Fill Dirt Site No. 4. No State-threatened species were observed by GLA, although one species – the Swainson's hawk – has the potential to forage on the Project site, off-site improvement area, and excess fill dirt sites. (GLA, 2020, pp. 30-40)

2. Natural Community Conservation Planning Act (NCCP)

CDFW's Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program began in 1991 as a cooperative effort to protect habitats and species. It is broader in its orientation and objectives than the California and Federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly. (CDFW, 2019c)

An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP. CDFW and the U.S. Fish and Wildlife Service provide the necessary support, direction, and guidance to NCCP participants. (CDFW, 2019c)

There are currently 16 approved NCCPs (including six subarea plans) and nine NCCPs in the active planning phase (including two subarea plans), which together cover more than eight million acres and will provide conservation for nearly 400 special status species and a wide diversity of natural community types throughout California. The Project Site, off-site improvement area, and excess fill dirt sites are neither located within the boundaries of an approved NCCP nor within the boundaries of an NCCP in the active planning phase. (CDFW, 2019c)

3. California Fish and Game Code, Section 1600, et seq.

CFGC section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3) deposit debris, waste or other materials that could pass into any river, stream, or lake. The CFGC indicates that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, 2019a)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, 2019a)

4. Native Plant Protection Act (NPPA) of 1977

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations. (CDFW, 2019d)

5. Unlawful Take a Destruction of Nests or Eggs (CFGC Sections 3503.5-3513)

Section 3503.5 of the CFGC specifically protects birds of prey, stating: “It is unlawful to take, possess, or destroy any [birds-of-prey] or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

Section 3513 of the CFGC duplicates the federal protection of migratory birds, stating: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

6. Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014a)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014a)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) are adopted by each of the Regional Water Boards and are periodically updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State

and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014a) The Project Site, excess fill dirt sites, and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region.

C. Local Plans, Policies, and Regulations

1. City of Chino Municipal Code

The City's Municipal Code (§ 20.19.040) requires that an arborist certified by the International Society of Arboriculture be retained prior to the removal of any tree(s) 10 inches or larger in diameter to make a recommendation as to the feasibility of maintaining or removing the tree(s). In addition, the removal of any existing trees requires the replacement of trees with a species designated by the Development Services Director or his designee. These replacement trees may be required on the property from which the tree(s) was removed, or at an off-site location. (Chino, 2019)

The City of Chino Municipal Code § 20.10.090 identifies general outdoor lighting standards for the City and § 20.18.050 identifies lighting standards for parking lots. Lighting in the City of Chino is required to utilize energy efficient fixtures that do not flash or blink and are not of high intensity of brightness. In addition, lighting shall be designed to provide safe and adequate lighting while minimizing light spillage. (Chino, 2019)

2. City of Chino Subarea 2 Resources Management Plan

The City of Chino adopted the Subarea 2 Resources Management Plan (hereafter, "RMP") in conjunction with adoption of The Preserve Specific Plan. The RMP provides a detailed methodology for implementing the biological resources mitigation measures contained in The Preserve Specific Plan EIR (SCH #2000121036) and establishes a framework for development within the Specific Plan area to ensure compliance with the EIR's biological mitigation measures. All of the excess fill dirt sites - but not the Project Site or off-site improvement area – are located within The Preserve Specific Plan area and activities on the excess fill dirt sites are subject to compliance with the RMP. The RMP is herein incorporated by reference and available for review at the City of Chino Development Services Department, Planning Division, 13220 Central Avenue, Chino, CA 91710.

4.3.3 Basis for Determining Significance

Environmental impacts to biological resources are assessed using impact threshold criteria, which reflect the policy statement contained in CEQA § 21001(c) of the Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in § 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines § 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species ..."*

Appendix G of the CEQA Guidelines is more specific in addressing biological resources and encompasses a broader range of topics to be considered, including: candidate, sensitive, or special status species; riparian habitat or other sensitive natural communities; federally protected wetlands; fish and wildlife movement corridors; local policies or ordinances protecting biological resources; and, adopted Habitat Conservation Plans (HCPs). This is done in the form of a checklist of questions to be answered during the Initial Study leading to the preparation of the appropriate environmental documentation for a project (i.e., Negative Declaration, Mitigated Negative Declaration, or EIR). Because these questions are derived from standards in other laws, regulations, and other commonly used thresholds, it is reasonable to use these standards as a basis for defining significance thresholds in an EIR. Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following conditions would result from implementation of the proposed Project.

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

b. *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service;*

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

d. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan.*

4.3.4 IMPACT ANALYSIS

Threshold a: ***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?***

A. Direct Impacts to Special-Status Plants

No special-status plants were observed on the Project Site, off-site improvement area, or any of the excess fill dirt sites during field surveys. Furthermore, due to the disturbed nature of the Project Site, off-site improvement area, and excess fill dirt sites, and lack of natural plant communities thereon, neither the Project Site, improvement area, nor excess fill dirt sites have potential to support special-status plant species known to occur in the Project region. (GLA, 2020, p. 50) Implementation of the Project would result in no impacts to special-status plant species.

B. Direct Impacts to Special-Status Wildlife

As discussed previously in this Subsection, three special-status animal species (burrowing owl, least Bell's vireo, and tri-colored blackbird) were detected during field surveys and 10 other special-status song birds, raptors, and bats have the potential to occur on the Project Site, off-site improvement area, and/or excess fill dirt sites. Potential direct impacts to these special-status species are discussed below.

1. Special-Status Raptors

The Project site and all excess fill dirt sites contain suitable foraging habitat for the burrowing owl as well as ground squirrel burrows that could be used by the burrowing owl for nesting. Two burrowing owls, presumed to be a mating pair, were observed on the Project Site; no burrowing owls or signs of burrowing owl use were observed on the excess fill dirt sites. Because the burrowing owl is a nomadic species its movements are unpredictable, it is possible that the burrowing owl continues to occupy the Project site or that the species moves to another property in the future. Likewise, it is possible that the burrowing owl does not use the excess fill dirt sites or that the species inhabits one or more of the excess fill dirt sites in the future. If burrowing owls are present on the Project Site and/or the excess fill dirt sites at the time construction activities commence, potential direct impacts to the species would be significant and mitigation would be required.

The Project Site, off-site improvement area, and all excess fill dirt sites contain suitable foraging habitat for the white-tailed kite, bald eagle, golden eagle, Swainson's hawk, and American peregrine falcon (in total approximately 208 acres of foraging habitat). The permanent loss of the raptor foraging habitat on the Project Site and the temporary loss of raptor foraging habitat at off-site improvement area and all excess fill dirt sites would be less than significant given the large amount of higher quality foraging habitat available nearby in Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains and these species relative abundance of these species in the region. (GLA, 2020, pp. 51-52) The loss of raptor foraging habitat at the off-site improvement area and the excess fill dirt sites is considered to be only a temporary impact because, following the completion of grading, excavation, and soil export activities at the off-site improvement area and excess fill dirt sites, the Project Applicant will apply a native plant hydroseed

mix to the impacted areas to re-establish foraging lands for raptors and avoid the spread of non-native, invasive plant species. Based on the foregoing, implementation of the Project would result in less-than-significant direct impacts to special-status raptors.

2. Special-Status Song Birds

The least Bell's vireo was detected on Excess Fill Dirt Site No. 1; the species is presumed to nest within the approximately 0.2-acre of southern willow scrub habitat on the Site and forage within the approximately 4.5 acres of freshwater marsh/disturbed freshwater marsh on the Site. The Project's proposed grading and excavation activities on Excess Fill Dirt Site No. 1 would not affect either the on-site southern willow scrub or freshwater marsh/disturbed freshwater marsh habitats; therefore, implementation of the Project would not directly affect the least Bell's vireo. (GLA, 2020, p. 50)

Although the yellow warbler and yellow-breasted chat were not observed/detected during field surveys, the species' habitat requirements overlap with the least Bell's vireo thus there is the potential for the species to use/occupy the southern willow scrub and/or freshwater marsh/disturbed freshwater marsh habitats on Excess Fill Dirt Site No. 1. As noted above, the Project's proposed grading and excavation activities on Excess Fill Dirt Site No. 1 would not affect either the on-site southern willow scrub or freshwater marsh/disturbed freshwater marsh habitats. Accordingly, implementation of the Project would result in no direct effects to the yellow warbler or the yellow-breasted chat. (GLA, 2020, p. 51)

The tri-colored blackbird was detected foraging within Excess Fill Dirt Site No. 4; approximately 10.6 acres of foraging habitat for the tri-colored blackbird is present within Excess Fill Dirt Site No. 4. The tri-colored blackbird was not observed nesting on Excess Fill Dirt Site No. 4 and is not expected to nest on the Site due the presence of more suitable nesting habitat within the adjacent Mill Creek Wetlands; therefore, the potential to incidentally take this species is low. (GLA, 2020, p. 51) Implementation of the Project would only temporarily disrupt the tri-colored blackbird's ability to forage on Excess Fill Dirt Site No. 4 because the Project Applicant would re-plant the Site with native and coastal sage scrub hydroseed mixes to re-establish foraging habitat for the tri-colored blackbird (and would ultimately provide higher quality habitat than what exists today). Based on the foregoing information, implementation of the Project would result in less-than-significant direct impacts to the tri-colored blackbird.

3. Special-Status Bats

No special-status bats were observed/detected within the Project Site, off-site improvement area, or excess fill dirt sites; however, all of these areas provide roosting and foraging habitat (low quality) for local special-status bat species. Due to the low-quality of habitat for special-status bats within the Project Site, off-site improvement area, or excess fill dirt sites and the abundance of nearby high-quality habitat within the Prado Basin, Chino Hills State Park, and the Santa Ana Basin, the permanent loss of roosting and foraging habitat on the Project site and the temporary loss of habitat on the off-site improvement area and excess fill dirt sites (as these areas would be hydroseeded with a native plant mix after completion of excavation/grading activities, which would restore the foraging habitat) would be less than significant. (GLA, 2020, p. 52)

C. Indirect Impacts for Special-Status Biological Resources

Development projects located adjacent to natural open spaces have the potential to result in indirect effects to biological resources such as light pollution, noise pollution, non-native/ornamental plant invasion, etc. The potential temporary and long-term indirect impacts that could result from implementation of the Project are addressed below.

1. Noise Impacts

Project construction would result in intermittent periods of relatively loud noise over the duration of the construction phase. Construction activities at Excess Fill Dirt Sites Nos. 1, 3, and 4 could expose adjacent habitat areas occupied by the least Bell's vireo and the tri-colored blackbirds to noise levels up to 83.2 equivalent continuous decibels (dBA Leq), which would be considered excessive and could result in adverse effects to the species by dissuading them from using their natural habitat areas. Potential construction noise impacts to the least Bell's vireo and tri-colored blackbird in proximity to Excess Fill Dirt Sites Nos. 1, 3, and 4 is a significant indirect effect and mitigation is required. Construction activities at the Project Site, off-site improvement area, and Excess Fill Dirt Sites Nos. 2 and 5 would expose habitat for the least Bell's vireo and the tri-colored blackbird to noise levels less than 65 dBA Leq, which is not considered to be a substantial adverse effect to the species. (GLA, 2020, p. 54)

Operational activities on the Project site would not expose any habitat occupied by special-status species to noise levels in excess of 65 dBA Leq; therefore, long-term operation of the Project would result in a less-than-significant noise impact to special-status biological species. (GLA, 2020, p. 54)

2. Lighting Impacts

There is the potential for construction activities at the Project Site and the excess fill dirt sites to occur during non-daylight hours. In this event, artificial lighting would be installed at the respective sites to illuminate the work area. Were artificial lighting installed on the Project Site and/or excess fill dirt sites to illuminate adjacent natural habitat areas, especially habitat used for nesting by the least Bell's vireo or tri-colored blackbird, the effect would be significant as the lighting could disrupt the circadian rhythms of the species and drive them away from their nesting and foraging areas. Potential indirect effects during the construction phase from the use of artificial lighting during non-daylight hours is a significant impact and mitigation is required. (GLA, 2020, pp. 54-55)

Under long-term operating conditions, exterior parking and loading areas on the Project Site would be illuminated at night; no lighting would be installed at the off-site improvement area or the excess fill dirt sites. Although artificial lighting would be installed at the Project Site, its use would not adversely affect any habitat for special-status species because all artificial lighting installed at the Project Site would be required to comply with the City of Chino Municipal Code (§§ 20.10.090 and 20.18.050). These lighting standards govern the placement and design of outdoor lighting fixtures to ensure adequate lighting for public safety while also minimizing light pollution and glare and precluding public nuisances (e.g., blinking/flashing lights, unusually high intensity, or bright lighting). Mandatory compliance with the City of Chino Municipal Code would ensure that operation of the Project would not indirectly expose special-status species to

substantial adverse effects from artificial lighting during non-daylight hours. Impacts would be less than significant.

3. Invasive Plants

All areas disturbed on the excess fill dirt sites during grading, excavation, and soil export activities, would be planted with a native plant hydroseed mix to re-establish the sites' vegetative cover to limit erosion and also avoid the spread of non-native, invasive plant species into adjacent natural habitat areas. At the Project Site, the landscape plan does not propose the installation of invasive plant species and all on-site plant materials would be routinely maintained to ensure their health and prevent their inadvertent spread from the Site. Implementation of the Project would result in a less-than-significant indirect impact related to invasive plants.

Threshold b: ***Would the Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Implementation of the Project would not affect any riparian habitat; but, would result in temporary impacts to approximately 0.8-acre of coastal sage scrub habitat and permanent impacts to approximately 0.4-acre of USFWS-designated "critical habitat" for the least Bell's vireo. The significance of impacts to coastal sage scrub habitat and critical habitat for the least Bell's vireo are addressed below.

Temporary impacts to coastal sage scrub habitat would occur along the southern and eastern boundaries of Excess Fill Dirt Site No. 4. The affected coastal sage scrub area was planted as part of a habitat restoration effort associated with the adjacent Mill Creek Wetlands. As noted in EIR Section 3.0, *Project Description*, following the completion of grading, excavation, and soil export activities at Excess Fill Dirt Site No. 4, the Project Applicant would re-seed the impacted coastal sage scrub habitat restoration area with a coastal sage scrub seed mix that is comprised of the same species currently present within the habitat restoration area. In consideration of this project design feature (i.e., re-seeding), which would restore the affected coastal sage scrub habitat to its existing condition, temporary impacts to coastal sage scrub habitat at Excess Fill Dirt Site No. 4 would be less than significant. (GLA, 2020, p. 48)

Permanent impacts to critical habitat for the least Bell's vireo would occur within the off-site improvement area (approximately 0.14-acre) and within Excess Fill Dirt Site No. 1 (approximately 0.23-acre). The critical habitat present within the off-site improvement area is comprised of ornamental habitat and developed land. The critical habitat present within Excess Fill Dirt Site No. 1 is comprised of ruderal habitat. Neither the off-site improvement area nor Excess Fill Dirt Site No. 1 contain the primary constituent elements or physical/biological attributes – riparian woodland habitat that generally contains both canopy and shrub layers – needed to support foraging and/or nesting for the least Bell's vireo. Thus, although implementation of the Project would result in impacts to areas that are mapped as critical habitat for the least Bell's vireo, in reality, these areas are low quality and not expected to support the species. Given this, combined with the Project Applicant's commitment to apply a native plant hydroseed mix to the impacted areas within the off-site improvement area and Excess Fill Dirt Site No. 1 following the completion of construction activities – which would ultimately provide higher quality habitat than what exists today, potential impacts to

designated critical habitat for the least Bell's vireo would be less than significant. (GLA, 2020, pp. 47-48, 52, 59)

Threshold c: ***Would the Project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Implementation of the Project will not affect any Corps, RWQCB, and CDFW jurisdiction waters. The grading limits at Excess Fill Dirt Site No. 1 avoid Drainage 1 and Ditch 1 and the proposed off-site storm drain is designed to avoid impacts to jurisdictional areas within Cypress Channel. During construction of the off-site storm drain, the storm drain will be installed from the west side (back side) of the existing concrete wing wall; a tarp will be installed above the ordinary high water mark (OHWM) on the east face of the wing wall to prevent construction debris from entering the Channel; access to the Channel will be made by foot and all construction activities will be completed using hand tools; and, lastly, the storm drain outlet will be installed above the OHWM. Based on the foregoing information, no impact would occur and no mitigation is required.

Threshold d: ***Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

The Project Site, off-site improvement area, and excess fill dirt sites also do not serve as a wildlife corridor nor is it connected to an established corridor, and there are no native wildlife nurseries on or adjacent to the Project Site, off-site improvement area, and excess fill dirt sites. Therefore, there is no potential for the Project to impede the use of a native wildlife nursery site or interfere with the movement of native migratory fish. (GLA, 2020, p. 53) Based on the foregoing information, the Project would result in no impact to any native resident or migratory fish, established wildlife corridor, or native wildlife nursery sites.

Implementation of the Project would result in the removal of vegetation (i.e., ornamental trees, shrubs and groundcover) that has the potential to provide roosting and nesting habitat for birds, including migratory and common raptor species – although no active nests were observed within the Project Site, off-site improvement area, or any of the excess fill dirt sites during field surveys. If active nests are present within the Project Site, off-site improvement area, and/or excess fill dirt sites during construction, implementation of the Project could result in substantial, adverse effects to biological resources (i.e., bird nests) that are protected by the MBTA and California Fish and Game Code. (GLA, 2020, pp. 44, 52-53) The Project's potential to impact nesting birds is a significant impact for which mitigation is required.

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

Implementation of the Project would result in the removal of mature, ornamental trees from the Project Site, off-site improvement area, and/or excess fill dirt sites. The removal of trees is regulated by City of Chino Municipal Code § 20.19.040.D.3, which requires development projects to conduct a tree inventory prior to construction and, if any mature significant trees are to be removed, to replace each removed tree at defined

ratios (as specified in Municipal Code § 20.19.040.D.3). The Municipal Code defines "mature significant trees" as oak trees with trunks more than eight inches in diameter at breast height; other trees with trunks more than 10 inches in diameter at breast height; and multi-trunk trees with a total circumference of 38 inches or more at breast height. Prior to removal of any mature significant trees, the Project Applicant would be required to comply with the applicable provisions of Municipal Code § 20.19.040.D.3. (Chino, 2019) Mandatory compliance with the requirements of the Municipal Code would ensure the Project would not conflict with the City of Chino's ordinance regulating tree removal. As such, a less-than-significant impact would occur.

The City of Chino does not have any additional policies or ordinances in place to protect biological resources.

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

Neither the Project Site, off-site improvement area, nor any of the excess fill dirt sites are located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, no impact would occur.

4.3.5 Cumulative Impact Analysis

This cumulative impact analysis for biological resources considers development of the proposed Project in consideration of other development projects in the vicinity of the Project site (including nearby development projects located within the cities of Eastvale and Ontario) as well as full General Plan buildout in the cities of Chino, Eastvale, Ontario, and Chino Hills.

The Project would not impact any special-status plant species and there is no potential for the Project Site, off-site improvement area, or excess fill dirt sites to support special-status plant species due to the lack of suitable, natural habitat. Accordingly, there is no potential for implementation of the Project to contribute to a substantial adverse cumulative impact to special-status plant species.

With the exception of the burrowing owl, implementation of the Project would not contribute to a substantial adverse cumulative impact to special-status raptor, songbird, or bat species due to the relatively healthy regional populations of these species, the local abundance of high-quality nesting and foraging habitat (Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains), and a Project design feature (i.e., re-planting with a native hydroseed mix) that would restore – and ultimately improve the existing quality of – foraging habitat within the off-site improvement area and excess fill dirt sites. (GLA, 2020, p. 56)

Regarding the burrowing owl, the species is known to use the Project Site and has the potential to use the excess fill dirt sites. The burrowing owl is commonly found within the Project vicinity; as such, it is reasonable to conclude that impacts to the burrowing owl habitat would occur in conjunction with

development of other properties in the cumulative study area. Thus, the Project has the potential to contribute to a cumulatively-considerable impact to the burrowing owl.

Although the Project's construction has the potential to produce noise and artificial lighting during non-daylight hours that could adversely affect least Bell's vireo and tri-colored blackbird individuals, there are no other known active or pending local construction projects that would overlap with proposed Project construction activities and affect the same local populations of the least Bell's vireo and tri-colored blackbird. Accordingly, no impact would occur.

Implementation of the Project would not contribute to substantial adverse cumulative impact to a natural or protected habitat or sensitive natural community because: 1) the Project Applicant would re-plant the coastal sage scrub habitat that is impacted during grading, excavation, and soil export activities at Excess Fill Dirt Site No. 4, resulting in no net loss of coastal sage scrub habitat on the Site; and 2) the Project Applicant would improve the quality of the USFWS-designated "critical habitat" that occurs within the off-site improvement area and Excess Fill Dirt Site No. 1 by replacing the low quality ruderal habitat that would be impacted during grading, excavation, and soil export activities with habitat planted with a native hydroseed mix. Accordingly, implementation of the Project would not reduce the form, function, or quantity of local natural or protected habitat.

The Project is designed to avoid impacts to Corps, RWQCB, and CDFW jurisdiction waters; therefore, there is no potential for the Project to contribute to a substantial adverse cumulative impact to protected/regulated wetland resources.

The Project would result in the removal of vegetation that has the potential to support nesting birds protected by federal and State regulations. A wide range of habitat and vegetation types have the potential to support nesting birds; therefore, it is likely that other development projects within the cumulative study area also may impact nesting birds. However, the Project – like all other development activities in the cumulative study area – would be required to comply with State and federal law to preclude impacts to nesting birds. The Project's potential impact to nesting birds would be cumulatively-considerable absent compliance to State and federal regulations.

The Project would not conflict with any local policies or ordinances protecting biological resources. Other development projects in the cumulative study area would be required to comply with applicable local policies and/or ordinances related to the protection of biological resources as a standard condition of review/approval. Because the Project and cumulative development would be prohibited from violating applicable, local policies or ordinances related to the protection of biological resources, a cumulatively-considerable impact would not occur.

The Project impact area is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Because there is no conservation plan applicable to the Project impact area, there is no potential for the Project to contribute to the violation of a conservation plan. No cumulative impact would occur.

4.3.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project Site and excess fill dirt sites contain suitable foraging and nesting habitat for the burrowing owl. In the event the burrowing owl is present on the Project Site and/or excess fill dirt sites at the time construction commences, implementation of the Project has the potential to take burrowing owl individuals. Also, Project construction activities have the potential to produce noise and use artificial lighting that could adversely affect the least Bell's vireo and/or the tri-colored blackbird.

Threshold b: Less-than-Significant Impact. The Project would not result in permanent adverse impacts to riparian or other sensitive habitats as defined by the CDFW or USFWS.

Threshold c: Less-than-Significant Impact. The Project is designed to avoid all impacts to Corps, RWQCB, and CDFW jurisdiction waters.

Threshold d: Significant Direct and Cumulatively-Considerable Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code, should habitat removal occur during the nesting season and should nesting birds be present.

Threshold e: Less-than-Significant Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.

Threshold f: No Impact. The Project is not subject to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. No impact would occur.

4.3.7 Mitigation

The following mitigation measures address the Project's potential to impact the burrowing owl:

MM 4.3-1 Within 14 days prior to the commencement of grading activities, a qualified biologist shall conduct a survey of the planned limits of ground disturbance and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Chino prior to the issuance of a grading permit and subject to the following provisions:

a) In the event that the pre-construction survey detects no burrowing owls in the planned limits of ground disturbance, a grading permit may be issued without restriction.

b) In the event that the pre-construction survey detects the burrowing owl within planned grading limits on the Project Site, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the Project Site the Project Applicant shall comply with MM 4.3-2.

c) In the event that the pre-construction survey detects the burrowing owl within planned limits of ground disturbance on Excess Fill Dirt Site Nos. 1 through 5, which are located in The Preserve Specific Plan area and subject to the *City of Chino Subarea 2 Resources Management Plan*, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities at the respective excess fill dirt site, the Project Applicant shall comply with MM 4.3-3.

MM 4.3-2 Applicable to the Project Site: In the event that the pre-construction survey identifies the presence of the burrowing owl on the Project Site, then prior to the commencement of ground-disturbing activities on the property:

a) Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-approved relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows.

b) No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided.

c) Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

d) If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with the California Department of Fish and Game 2012 Staff Report.

MM 4.3-3 Applicable to Excess Fill Dirt Site Nos. 1 through 5: In the event that the pre-construction survey identifies the presence of the burrowing owl at an excess fill dirt site, the Project Applicant shall ensure at minimum that Project-related activities occur in conformance with the burrowing owl mitigation standards established by the *City of Chino Subarea 2 Resources Management Plan*.

a) Prior to disturbance of occupied burrows, natural or artificial replacement burrows shall be provided at a ratio of 2:1 within a City-designated relocation area. A qualified biologist shall confirm the replacement burrows are unoccupied and suitable for burrowing owl use prior to disturbance of occupied burrows.

b) No disturbance shall occur within 50 meters of occupied burrows during the non-breeding season (September 1 through January 31) or within 75 meters of occupied

burrows during the breeding season (February 1 through August 31), until the Project Applicant provides evidence to the City of Chino that suitable replacement burrows have been provided.

c) Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

d) If burrowing owls are present at the time occupied burrows are to be disturbed, the owls shall be excluded from the site in accordance with the California Department of Fish and Game 2012 Staff Report on Burrowing Owl Mitigation and the protocol established in Table 4-6 of the City of Chino Subarea 2 Resources Management Plan.

e) If the City of Chino has established a mitigation fee program for the long-term management of burrowing owl habitat as recommended by the City of Chino Subarea 2 Resources Management Plan prior to issuance of the first grading permit, then the Project Applicant shall pay the appropriate mitigation fee to the City of Chino.

The following mitigation measures address the Project's potential indirect construction impacts to the least Bell's vireo and tri-colored blackbird.

MM 4.3-4 Prior to the issuance of a grading permit, a qualified biologist shall prepare maps showing the locations of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies located within 500 feet of Excess Fill Dirt Site Nos. 1, 3, and 4. Such locations shall be indicated on the grading plan as reference, and shall be provided to the City of Chino to be included as part of the construction management plan required as part of Mitigation Measure MM 4.3-5.

MM 4.3-5 Prior to grading permit issuance, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall include the following notes. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino or the City's designee staff to confirm compliance.

a) In the event that grading, excavation, and/or soil export activities at Excess Fill Dirt Site Nos. 1, 3, and/or 4 occur during the least Bell's vireo and tri-colored blackbird nesting seasons (March 15 to September 15) and within 500 feet of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies, the Project Applicant shall install an on-site temporary noise barrier, as needed, to ensure these territories and/or nesting colonies are not exposed to noise levels in excess of 65 dBA Leq. Noise monitoring shall occur for the duration of construction activities at Excess Fill Dirt Site Nos. 1, 3, and/or 4

as needed to ensure the least Bell's vireo and tri-colored blackbird are not exposed to construction noise that exceeds 65 dBA Leq.

b) Any artificial light fixtures used on the Project Site and excess fill dirt sites during construction shall be placed in an appropriate location and include appropriate design features (e.g., shielding, cut-off devices, etc.) to preclude substantial illumination beyond the Project Site and excess fill dirt site boundaries and within 500 feet of known least Bell's vireo territories and/or tri-colored blackbird nesting colonies.

The following mitigation measure addresses the Project's potential impact to nesting birds during construction:

MM 4.3-6 All vegetation clearing and ground disturbance shall be prohibited during the bird nesting season (January 31 through September 1), unless a nesting bird survey is completed in accordance with the following requirements:

a) A bird nesting survey of the Project Site, off-site improvement area, and excess fill dirt sites, including suitable habitat within a 250-foot radius, shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance at the respective property. A copy of the nesting bird survey results report shall be provided to the City of Chino.

b) If the survey does not identify the presence of any active nests, then construction activities can proceed without restriction.

c) If the survey identifies the presence of active nests, then the qualified biologist shall provide the City with a copy of maps showing the location of all nests and a species-appropriate buffer zone around each nest sufficient to protect the nest from substantial adverse direct and/or indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City.

1. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing. No construction vehicles shall be permitted within restricted areas (i.e., bird protection zones), unless directly related to the management or protection of the legally protected species, until all nestlings have fledged and left the nest (or the nest has failed).

2. In the event that a nest is abandoned despite efforts to minimize disturbance and, if the nestlings are still alive, the Project Applicant/Developer shall contact the California Department of Fish and Wildlife (CDFW) and, subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).

The following mitigation measures are provided to ensure the implementation of Project design features that reduce impacts to biological resources.

MM 4.3-7 Prior to the issuance of the first certificate of occupancy for the Project, the Project Applicant shall provide evidence to the City of Chino that all areas within the off-site improvement area and excess fill dirt sites that were disturbed during Project construction have been planted with a native hydroseed mix, with the exception of an approximately 0.8-acre area along the southern and eastern boundary of Excess Fill Dirt Site No. 4 that is to be planted with a coastal sage scrub hydroseed mix that matches the species that are present in the adjacent Mill Creek Wetlands.

MM 4.3-8 Prior to the issuance of the permit that would allow the construction of the Project's off-site storm drain connection to the Cypress Channel, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall include the following note. Project contractors shall be required to comply with these notes and permit periodic inspection of the construction site by City of Chino staff to confirm compliance.

a) During construction of the Project's storm drain outlet within the Cypress Channel, a tarp shall be installed above the ordinary high water mark (OHWM) on the east face of the wing wall to prevent construction debris from entering the Channel; access to the Channel shall only be made on foot; all construction activities shall be performed using hand tools; and, the storm drain outlet shall be installed above the OHWM.

4.3.8 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.3-1 through MM 4.3-5 would ensure that implementation of the Project would not result in substantial adverse direct or indirect effects to the burrowing owl, least Bell's vireo, or tri-colored blackbird by requiring the implementation of specific survey, monitoring, and construction protocols. With implementation of the required mitigation, direct and cumulatively-considerable impacts to the burrowing owl, least Bell's vireo, or tri-colored blackbird would be reduced to less than significant.

Threshold d: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.3-6 would ensure that pre-construction surveys are conducted for nesting birds to determine their presence or absence prior to disturbance of habitat on the Project site, off-site improvement area, and excess fill dirt sites. If nesting birds are present, the mitigation requires avoidance of bird nests during the breeding season in conformance with accepted protocols and regulatory requirements. With implementation of the required mitigation, potential direct and cumulatively-considerable impacts to nesting birds would be reduced to less than significant.

4.4 CULTURAL RESOURCES

The analysis in this Subsection is based on a report titled "A Cultural Resources Study for the Majestic Chino Heritage Project," prepared by Brian F. Smith and Associates, Inc. (hereafter "BFSA") and dated September 11, 2019 (BFSA, 2019a). This report, which includes the findings from archaeological pedestrian surveys; a cultural records search and sacred lands search and an inventory of all recorded archaeological and historical resources located on and within a one-mile radius of the Project Site and the excess fill dirt sites, is provided as *Technical Appendix D* to this EIR.

Written and oral communication between Native American tribes, BFSA, and the City of Chino is considered confidential in respect to places that have tribal cultural significance (Gov. Code § 65352.4). Although all relevant communications that occurred between Native American tribes, BFSA, and the City of Chino were relied upon to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)). Confidential information that falls under the limits described above has been redacted from *Technical Appendix D* for purposes of public review.

4.4.1 EXISTING CONDITIONS

A. Prehistoric Resources

1. Regional Setting

The Project Site and Excess Fill Dirt Site Nos. 1 through 5 are located in the southern portion of the City of Chino, San Bernardino County, California. The Paleo-Indian Period, Archaic Period, Late Prehistoric Period, and Protohistoric Period are the four general prehistoric cultural periods represented in San Bernardino County, as summarized briefly below. Refer to *Technical Appendix D* for a detailed discussion about the prehistoric cultural periods in San Bernardino County.

- Paleo-Indian Period (Late-Pleistocene: 11,500 to 9,000 years ago). The Paleo-Indian Period is associated with the terminus of the late Pleistocene period. During this time, the climate became warmer, causing sea levels to rise and major vegetation changes to occur. Paleo Indians were attracted to multiple habitats, including mountains, marshlands, estuaries, and lakeshores, and used a more generalized adaptation of hunting and gathering to survive. (BFSA, 2019a, p. 3.0-2)

- Archaic Period (Early and Middle Holocene: 9,000 to 1,300 years ago). The Archaic Period marks a shift from the Pleistocene to the Holocene period, representing a time when substantial environmental changes occurred. In southern California, this period is associated with a number of different cultures, complexes, traditions, periods, and horizons, including San Dieguito, La Jolla, Encinitas, Millingstone, Pauma, and Intermediate. (BFSA, 2019a, pp. 3.0-2 - 3.0-3)

- Late Prehistoric Period (Late Holocene: 1,300 years ago to 1790). Approximately 1,350 years before present, a Shoshonean-speaking group moved into San Bernardino County, marking the transition to the Late Prehistoric period. This Period is characterized by higher population densities, the

expansion of social, economic, and political systems, and innovations in technological systems. During this Period, the San Bernardino County area was inhabited by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2019a, p. 3.0-3)

- Protohistoric (Late Holocene: 1790 to Present). At the time of Spanish contact, southwestern San Bernardino County was primarily occupied by the Gabrielino (also known ethnographically as the Tongva) and Serrano.

  The Gabrielino lived in permanent villages and smaller resource gathering camps occupied at various times of the year depending upon the seasonality of the resource. The Gabrielino territory covered much of present-day Los Angeles and Orange counties, with a southern extent was bounded by Aliso Creek, an eastern extent east of present-day City of San Bernardino (along the Santa Ana River), a northern extent including the San Fernando Valley, and a western extent including portions of the Santa Monica Mountains. Because of their access to certain resources, including a steatite source from Santa Catalina Island, the Gabrielino group was among the wealthiest and most populous aboriginal groups in all of Southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California. (BFSA, 2019a, p. 3.0-3 to 3.0-5)

  The Serrano were organized into autonomous localized lineages occupying definite, favored territories, but rarely claiming any territory far removed from the lineage's home base. As such, their definitive territory is difficult to place but is thought to include the San Bernardino Mountains east of Cajon Pass, the base of and north of the mountains near Victorville, east to Twentynine Palms, and south to the Yucaipa Valley. The Serrano were primarily hunter/gatherers. Vegetal staples varied with locality: acorns and piñon nuts were found in the foothills, and mesquite, yucca roots, cacti fruits, and piñon nuts were found in or near the desert regions. Diets were supplemented with other roots, bulbs, shoots, and seeds. (BFSA, 2019a, p. 3.0-5 to 3.0-7)

2. Study Area Setting and Existing Conditions

BFSA conducted intensive pedestrian surveys of the Project Site and excess fill dirt sites on March 14 and 15, 2019. The pedestrian surveys consisted of a series of parallel transects, spaced at approximately 20-meter intervals, which covered the entire survey areas. The Project Site and excess fill dirt sites had a ground visibility ranging from fair to good in most areas. According to the pedestrian survey, no prehistoric resources were identified on the Project Site or on any of the excess fill dirt sites. (BFSA, 2019a, p. 1.0-2)

BFSA also conducted an archaeological records search through the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton. The records search provided information regarding previous archaeological studies in the vicinity of the Project Site and the excess fill dirt sites and any previously recorded prehistoric sites within a one-mile radius of the Project Site and the excess fill dirt sites. The records search identified 30 prehistoric sites that have been previously recorded within a one-mile radius of the Project Site and/or excess fill dirt sites, including one prehistoric site that was previously recorded on Excess Fill Dirt Site No. 1 and one prehistoric site that was previously recorded on Excess Fill Dirt Site No.

4, as described below. (BFSA, 2019a, pp. 5.0-1 through 5.0-3) Refer to *Technical Appendix D* for a detailed description of the previously recorded prehistoric resources.

❑ Excess Fill Dirt Site No. 1

Prehistoric site CA-SBR-5241 was recorded within Excess Fill Dirt Site No. 1 in 1983 as a lithic scatter with projectile points. At the time, the resident of Excess Fill Dirt Site No. 1 reported the presence of the site and a 1-meter x 1-meter test unit was excavated at CA-SBR-5241; however, no evidence of any prehistoric artifacts was discovered. BFSA did not observe any prehistoric artifacts at CA-SBR-5241 during the pedestrian field survey conducted in 2019. (BFSA, 2019a, p. 5.0-32 and 5.0-34)

❑ Excess Fill Dirt Site No. 4

A portion of prehistoric site CA-SBR-2845 was recorded on Excess Fill Dirt Site No. 4 in 1978. Site CA-SBR-2845 was originally recorded as a light surface scatter of lithics, which included a mano, metate fragments, and some debitage spread across an 85-meter area that had been disturbed by agricultural activities. The site was updated in 1980 when one metate fragment was observed but no lithics. Site CA-SBR-2845 was re-surveyed and tested in 1985 which yielded minimal amounts of prehistoric artifacts. The archaeologists conducting the testing determined that little or no subsurface cultural resources were present at the site and the site warranted no further study. BFSA did not observe any prehistoric artifacts at CA-SBR-2845 during the pedestrian field survey conducted in 2019. (BFSA, 2019a, p. 5.0-82)

B. Historical Resources

1. Regional Setting

The general historical setting for the southern California region and the City of Chino is summarized below. Refer to *Technical Appendix D* for a detailed discussion of the local historic setting.

European settlement of southern California began with a Spanish colonizing expedition in 1769. Soon after, the San Gabriel (presently Los Angeles County), San Juan Capistrano (presently Orange County), and San Luis Rey (presently San Diego County) missions began to colonize southern California, and gradually expanded their influence to the interior valleys to raise grain and cattle to support the missions. The indigenous groups who inhabited these lands were recruited and converted by missionaries and worked in the missions. During this time, Native American populations were devastated by the introduction of diseases, drastic shifts in diet that resulted in poor nutrition, and social conflicts brought on by an entirely new social order. (BFSA, 2019a, p. 3.0-7)

In 1846, war broke out between Mexico and the United States ending in 1848 with the signing of the Treaty of Guadalupe Hidalgo. Upon signing of the Treaty, the region was annexed as a territory of the United States and, in 1850, California became a state, sparking an influx of settlers into the region, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, those who sought religious freedom, and individuals who desired to create utopian societies. (BFSA, 2019a, p. 3.0-9)

In 1881, Richard Gird purchased the former Rancho Santa Ana del Chino which encompassed approximately 46,000 acres and includes the present-day City of Chino. The town plat for Chino was laid out by Gird in

1887. Gird created an agricultural experimental station within the Rancho Santa Ana del Chino that tested a variety of crops to determine what crops would thrive locally. Gird also built the narrow-gauge Chino Valley Railroad which was ultimately replaced by a Southern Pacific Railroad spur to the main railroad line in the City of Ontario. The Chino Valley Sugar Beet Factory opened in 1887 and it is likely that lands in the vicinity of the Project Site were used to grow sugar beets for processing until closure of the Factory in 1917 or 1918. In the late-1930s, the State purchased large quantities of farmland in the Chino area for the future construction of new prison facilities (the present-day California Institution for Men and the California Institution for Women). Around this same time, the Cal Aero Field (present-day Chino Airport) was constructed and used as training grounds for the United States Army Air Force. The 1930s also marked the beginning of the boom of dairy production in southern California (particularly in southwestern San Bernardino County), which peaked in 1950s through 1980s, due to advances in technology and dairying techniques and dairy-friendly zoning regulations. The City of Chino's large, highly-efficient dairies made it the largest milk-producing community in the nation's largest milk-producing state. (BFSA, 2019a, pp. 3.0-9 through 3.0-11)

2. Study Area Setting and Existing Conditions

BFSA conducted intensive pedestrian surveys of the Project Site and excess fill dirt sites on March 14 and 15, 2019. The pedestrian surveys consisted of a series of parallel transects, spaced at approximately 20-meter intervals, which covered the entire survey areas. The Project Site and excess fill dirt sites had a ground visibility ranging from fair to good in most areas. In addition, BFSA conducted a records search through the SCCIC at CSU Fullerton. The records search provided information regarding previous archaeological studies in the vicinity of the Project Site and the excess fill dirt sites and any previously recorded historic sites within a one-mile radius of the Project Site and the excess fill dirt sites. The records search identified 70 historic sites that have been previously recorded within a one-mile radius of the Project Site and/or excess fill dirt sites, including four of which that are located – or previously located – on Excess Fill Dirt Sites Nos. 2, 3, and 5. (BFSA, 2019a, pp. 5.0-1 through 5.0-3)

A brief description of the historic resources observed by BFSA on the Project Site and excess fill dirt sites, and reported in the records search are described on the following pages. The term "historic resource" as used herein is a resource that meets the qualifying age criterion of 50 years of age or older. A discussion of whether these resources are significant under CEQA is provided later in this Subsection under the Threshold "a" evaluation. Refer to *Technical Appendix D* for a detailed description of the observed/recorded historic resources.

❑ Project Site

BFSA observed two historic resources on the Project site that were recorded as CA-SBR-33,112H and CA-SBR-33,113H. Both sites were remnants of former commercial dairy farms.

CA-SBR-33,112H consists of concrete foundations from agricultural structures associated with the former commercial dairy farms; a garage; hay barn, feed trough, milk house, feed room, calf barn, calf shed, and six corrals; and feed alleys and corrals. The initial structures at the site were added between 1948 and 1959;

other structures were added between 1959 and 2014. All structures at CA-SBR-33,112H were demolished between 2015 and 2016. (BFSA, 2019a, p. 5.0-5 and 5.0-11)

CA-SBR-33,113H consists of concrete foundations for feed alleys and a concrete driveway, which are features associated with the former commercial dairy farms. The site previously contained a single-family residence, milk parlor, and numerous agricultural support buildings. Structures were first constructed at CA-SBR-33,113H between 1938 and 1946, with other structures added between 1946 and 1994. All structures at CA-SBR-33,112H were demolished between 2016 and 2017. (BFSA, 2019a, p. 5.0-22 and 5.0-29)

❑ Excess Fill Dirt Site No. 1

The records search identified one previously recorded historic resource (P-36-029722) and BFSA observed two new historic resources (P-36-033114 and CA-SBR-33,115H) on Excess Fill Dirt Site No. 1.

Site P-36-029722, which was recorded in 2001, is a Southern California Edison electrical transmission line tower that was constructed in 1962. When originally recorded, the electrical transmission line tower was noted to be of relatively minor importance because it was not part of the main line transmission towers that were built across the region in the 1920s and 1930s and, also, was noted to not be distinctive or unique as the tower and the lines that it supported were typical of high voltage facilities throughout the region. (BFSA, 2019a, p. 5.0-34)

Site P-36-033114 was recorded by BFSA as a single-family residence built between 1948 and 1959 and a detached garage built between 1967 and 1980. Site P-36-033114 also included several modern structures that were not recorded. The single-family residence is a side gabled structure clad in plywood and shingle-siding that was expanded numerous times up to 2009. Based on historical research, it is likely the structure was built in 1942 as a shed for ranching operations on the site and later converted to a residence. The precise age of the detached garage could not be determined. (BFSA, 2019a, p. 5.0-35 and 5.0-43)

Site CA-SBR-33,115H was recorded by BFSA as the foundation remnants of a ranch and slaughterhouse facility. The first structures were built at the site between 1938 and 1946. Other structures were added and removed between 1948 and 1980; the last remaining structures were demolished prior to 1994. Based on BFSA's visual survey, the remaining concrete pads have been heavily impacted by the previous demolition activities and retain little to no integrity. (BFSA, 2019a, p. 5.0-55)

❑ Excess Fill Dirt Site No. 2

The records search identified two previously recorded historic resources on Excess Fill Dirt Site No. 2, CA-SBR-29,791H and P-36-029792).

Site CA-SBR-29,791H was recorded in 2015 as foundation remains/concrete pads and a stormwater runoff basin associated with a previously demolished dairy farm. Subsequently, in 2016, Site CA-SBR-29,791H was determined to not be historically significant. BFSA re-located Site CA-SBR-29,791H on Excess Fill Dirt Site No. 2 and noted that its condition has changed little since 2016. (BFSA, 2019a, p. 5.0-63)

Site P-36-029792 was recorded in 2016 and comprises a transmission line tower and high voltage line segment that was constructed in the 1960s. Site P-36-029792 is an abutting segment of the same transmission line that traverses Excess Fill Dirt Site No. 1 (see discussion of Site P-36-029722 above). Site P-36-029792 is considered to be of relatively minor importance because it was not part of the main line transmission towers that were built across the region in the 1920s and 1930s and, also, is not distinctive or unique as the tower and the lines that it supported were typical of high voltage facilities throughout the region. (BFSA, 2019a, p. 5.0-63)

❑ Excess Fill Dirt Site No. 3

The records search identified one previously recorded historic resource (CA-SBR-12,613H) and BFSA observed one additional historic resource (CA-SBR-33,116H) on Excess Fill Dirt Site No. 3.

Site CA-SBR-12,613H was recorded in 2007 as a historic-age electrical transmission line right-of-way with an associated lattice-style tower (the tower was constructed between 1953 and 1954). Previous studies of Site CA-SBR-12,613H determined it was not eligible for listing in a historic register and had no additional research potential given the already known history of local transmission line towers and alignments and due to the loss of historic integrity of the alignment due to the replacement of many of the original towers. (BFSA, 2019a, p. 5.0-65)

BFSA recorded Site CA-SBR-33,116H as the remnants of a former commercial dairy, including concrete driveways and feed alleys. Structures were first built at the site between 1959 and 1996. Other structures were added and/or removed between 1966 and 2002; the last remaining structures were demolished between 2011 and 2013. (BFSA, 2019a, p. 5.0-67)

❑ Excess Fill Dirt Site No. 4

BFSA recorded a historic site, CA-SBR-33,117H, on Excess Fill Dirt Site No. 4. Site CA-SBR-33,117H is comprised of remnants of former agricultural structures, including a driveway to a former agricultural residence, foundations to an orchard structure, and a concrete feed alley for a commercial dairy. Structures first appeared on the site in the late 1930s, including a residence and ancillary agricultural buildings, as part of the site's use as a walnut orchard. The site transitioned to a cattle ranch then commercial dairy beginning in the late 1950s. A second residence – of which the foundation is still present on the site – was constructed in 1973. Other structures were added and removed from the site up to 2010; the last remaining structures on the site were demolished between 2016 and 2017. (BFSA, 2019a, p. 5.0-82, 5.0-93 and 5.0-94)

❑ Excess Fill Dirt Site No. 5

The records search identified one historic resource, CA-SBR-12,573H, on Excess Fill Dirt Site No. 5. Site CA-SBR-12,573H was first recorded in 2007 as an approximately two-mile-long historic ditch known to have been in existence since at least 1888. An approximately 430-foot-long portion of the ditch was recorded on the site. The ditch was constructed to divert water from Fuqua Creek (sometimes called Spring Creek) to the properties of John M. Fuqua and William Thomas to irrigate their farmland. Historical aerial photographs suggest that the ditch was likely not present on Excess Fill Dirt Site No. 5 since 1938 and BFSA

did not observe any evidence of the ditch on the site during the pedestrian survey in 2019. (BFSA, 2019a, p. 5.0-97)

4.4.2 Applicable Environmental Plans, Policies, and Regulations

A. Federal Plans, Policies, and Regulations

1. National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting our nation's heritage. While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the Federal Government must set an example through enlightened policies and practices. In the words of the Act, the Federal Government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." (ACHP, 2016)

NHPA and related legislation sought a partnership among the Federal Government and the States that would capitalize on the strengths of each. The Federal Government, led by the National Park Service (NPS) provides funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The States, through State Historic Preservation Officers (SHPOs) appointed by the Governor of each State, would provide matching funds, a designated State office, and a statewide preservation program tailored to State and local needs and designed to support and promote State and local historic preservation interests and priorities. (ACHP, 2016)

An Advisory Council on Historic Preservation (ACHP), the first and only federal entity created solely to address historic preservation issues, was established as a cabinet-level body of Presidentially-appointed citizens, experts in the field, and federal, State, and local government representatives, to ensure that private citizens, local communities, and other concerned parties would have a forum for influencing federal policy, programs, and decisions as they impacted historic properties and their attendant values. (ACHP, 2016)

Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties, and provide the ACHP with a reasonable opportunity to comment on those actions and the manner in which federal agencies are taking historic properties into account in their decisions. (ACHP, 2016)

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation

programs commensurate with their missions and the effects of their authorized programs on historic properties. (ACHP, 2016)

2. National Register of Historic Places (NRHP)

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. (NPS, n.d.)

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?
- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archeological investigation about our past? (NPS, n.d.)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the National Park Service (NPS) for a Determination of Eligibility (DOE). Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archeological significance based on national standards used by every state. (NPS, n.d.)

Under federal law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, n.d.)

3. Native American Graves Protection and Repatriation Act (NAGPRA)

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2016)

One major purpose of this statute is to require that federal agencies and museums receiving federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian

organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2016)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2016)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2016)

B. State Plans, Policies, and Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, Archaeological Features, of Title 14 of the California Administrative Code provides that: “No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value.”

2. California Code of Regulations Title 14, Section 1427

California Code of Regulations Title 14, Section 1427 provides that: “No person shall collect or remove any object or thing of archeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archeological or historical interest or value is found.”

3. California Register of Historic Resources

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archeological resources. The California Register program encourages public recognition and protection of resources of architectural,

historical, archeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. (OHP, 2019)

In order for a resource to be included on the Register of Historic Resources, the resources must meet one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4). (OHP, 2019)

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, 2019)

Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) can, however, formally determine a property eligible for the California Register if the resource owner objects. (OHP, 2019)

None of the resources recorded on the Project Site and excess fill dirt sites, including the resources previously recorded by others and the new resources recorded by BFSA in 2019, meet the minimum requirements to be eligible for listing on the Register of Historic Resources (BFSA, 2019a, p. 6.0-23).

4. State Health and Safety Code

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the Code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. HSC § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of

remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

5. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 *et seq.*).

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the Public Resources Code, 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.
- 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 to be an 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 California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - Is associated with the lives of persons important in our past;
    - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    - Has yielded, or may be likely to yield, information important in prehistory or history.
    - The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

4.4.3 Basis for Determining Significance

The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

a. *Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5 of the CEQA Guidelines;*

b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5 of the CEQA Guidelines; or*

c. *Disturb any human remains, including those interred outside of dedicated cemeteries.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to cultural resources that could result from development projects.

4.4.4 Impact Analysis

Threshold a: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

A combined 11 historic resource sites have been previously recorded or identified on the Project Site and the five excess fill dirt sites. The historical significance of each of these sites, and the potential impacts that would result to each of these sites from implementation of the Project is described below.

❑ Project Site

Site CA-SBR-33,112H consists of concrete foundations from agricultural structures associated with the former commercial dairy farms. Site CA-SBR-33,112H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-10 and 6.0-11) Implementation of the Project would abolish site CA-SBR-33,112H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

Site CA-SBR-33,113H consists of concrete foundations for feed alleys and a concrete driveway, which are features associated with the former commercial dairy farms. Site CA-SBR-33,113H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations

collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-12 and 6.0-13) Implementation of the Project would abolish Site CA-SBR-33,113H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

Although implementation of the Project would not result in the loss of any known historic resources on the Project Site that are considered important under CEQA Guidelines 15064.5, the former use of the Project Site for commercial dairy uses and subsequent demolition of these uses resulted in substantial ground disturbances that may have resulted in the burying/masking of important historic resources that could not be detected during field surveys. As such, ground-disturbing construction activities on the Project Site may unearth buried/masked historic archaeological resources that may qualify for importance under CEQA, which is identified as a potentially significant impact for which mitigation is required.

- **Excess Fill Dirt Site No. 1**

Site P-36-029722 is a Southern California Edison electrical transmission line tower that was constructed in 1962. The Project would not impact, modify, or otherwise alter the transmission line tower; therefore, implementation of the Project would not adversely impact Site P-36-029722.

Site P-36-033114 was recorded as a single-family residence built between 1948 and 1959 and a detached garage built between 1967 and 1980. Site P-36-033114 is not considered an important historical resource pursuant to CEQA Section 15064.5 and is not eligible for listing on the California Register of Historic Places because, based on archival research and visual observations collected by BFSA, the Site has a lack of overall historic integrity (due to the substantial modifications that have been made to the structures over their lifetime) and the lack of association of the Site with any significant persons or events (BFSA, 2019a, p. 6.0-13 to 6.0-18). Implementation of the Project would abolish Site P-36-033114, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

Site CA-SBR-33,115H was recorded as the foundation remnants of a ranch and slaughterhouse facility. Site CA-SBR-33,115H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated

historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-18 to 6.0-20) Implementation of the Project would abolish Site CA-SBR-33,115H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

❑ Excess Fill Dirt Site No. 2

Site CA-SBR-29,791H was recorded as foundation remains/concrete pads and a stormwater runoff basin associated with a previously demolished dairy farm. Site CA-SBR-29,791H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-8 and 6.0-9) Implementation of the Project would abolish Site CA-SBR-29,791H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

Site P-36-029792 is a Southern California Edison transmission line tower and high voltage line segment that was constructed in the 1960s. The Project would not impact, modify, or otherwise alter the transmission line tower or high voltage line segment; therefore, implementation of the Project would not adversely impact Site P-36-029792.

❑ Excess Fill Dirt Site No. 3

Site CA-SBR-12,613H is a Southern California Edison transmission line tower and high voltage line segment (the tower was constructed between 1953 and 1954). The Project would not impact, modify, or otherwise alter the transmission line tower or high voltage line segment; therefore, implementation of the Project would not adversely impact Site CA-SBR-12,613H.

Site CA-SBR-33,613H is the concrete foundation remains of a demolished commercial dairy farm. Site CA-SBR-33,613H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated

historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-20 and 6.0-21) Implementation of the Project would abolish Site CA-SBR-33,116H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

❑ Excess Fill Dirt Site No. 4

Site CA-SBR-33,117H is comprised of remnants of former agricultural structures, including a driveway to a former agricultural residence, foundations to an orchard structure, and a concrete feed alley for a commercial dairy. Site CA-SBR-33,117H is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because based on archival research and visual observations collected by BFSA: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) as nothing more than a collection of degraded concrete foundations, the Site is considered neither distinctive nor unique; and 4) recordation of the Site's features and associated historical research conducted for the site have exhausted its historic research potential and the Site is unlikely to further contribute important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-21 to 6.0-23) Implementation of the Project would abolish Site CA-SBR-33,117H, but because it is not an important historical resource pursuant to CEQA, the loss of this Site would be a less-than-significant impact.

❑ Excess Fill Dirt Site No. 5

CA-SBR-12,573H is a historic irrigation ditch that was recorded in 2007 but was not re-located on Excess Fill Dirt Site No. 5 by BFSA in 2019. Implementation of the Project would result in grading where the segment of CA-SBR-12,573H was previously observed; but, would not affect the recorded extent of CA-SBR-12,573H located beyond Excess Fill Dirt Site No. 5. No identifiable features of CA-SBR-12,573H can be seen on Excess Fill Dirt Site No. 5 under existing conditions; therefore, implementation of the Project would not result in an adverse impact to the feature. Notwithstanding, BFSA evaluated the previously recorded information related to CA-SBR-12,573H and determined the Site is not considered an important historical resource pursuant to CEQA Guidelines Section 15064.5 and is not eligible for listing on the California Register of Historic Places because: 1) there is no indication that the Site is directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, nor has any specific event occurred within the Site; 2) no individuals or groups of individuals of importance, who are historically known or identified in ethnographic accounts of the region, could be directly tied to the Site; 3) the Site does not exhibit distinctive or unique characteristics; and 4) because the Site cannot be re-located, it does not offer any important, new information to the historical record of the City of Chino or San Bernardino County. (BFSA, 2019a, p. 6.0-4 and 6.0-5) For these reasons, implementation of the Project would result in a less-than-significant impact to Site CA-SBR-12,573H.

❑ **Potential for Discovery of Buried or Masked Resources**

Although implementation of the Project would not result in the loss of any known historic resources on Project Site or excess fill dirt sites that are considered important under CEQA Guidelines 15064.5, the former use of the properties for agricultural and/or commercial dairy uses and subsequent demolition of these uses resulted in substantial ground disturbances that may have resulted in the burying/masking of important historic resources that could not be detected during field surveys. As such, ground-disturbing construction activities on certain areas of the Project Site and excess fill dirt sites may unearth buried/masked historic archaeological resources that may qualify for importance under CEQA, which is identified as a potentially significant impact for which mitigation is required.

Threshold b: Would the Project cause a substantial adverse change in the significance of an archaeological resources pursuant to Section 15064.5?

The archival research and pedestrian surveys conducted by BFSA identified only two prehistoric resource sites: CA-SBR-5241 on Excess Fill Dirt Site No. 1 and CA-SBR-2845 on Excess Fill Dirt Site No. 3.

CA-SBR-5241 was previously recorded as a lithic scatter with projectile points; however, the recordation was based on information provided by the resident of Excess Fill Dirt Site No. 1 and no evidence of any prehistoric resources was discovered during site testing in 1983 or during BFSA's survey of the site in 2019. Because no evidence of the purported lithic scatter was ever found on Excess Fill Dirt Site No. 1, the Site cannot and does not meet the minimum qualifications of a prehistoric archaeology resource as defined by CEQA Guidelines Section 15064.5. (BFSA, 2019a, p. 6.0-3 and 6.0-4) Accordingly, implementation of the Project would result in a less-than-significant impact to CA-SBR-5241.

CA-SBR-2845 was recorded was recorded as a lithic scatter over 40 years ago. When the Site was updated and tested in the mid-1980s, very few prehistoric artifacts were found and the archaeologist of record determined the Site did not represent an important resource or warrant further study. BFSA did not observe any prehistoric artifacts at the location of CA-SBR-2845 in 2019. Based on the historical record of testing at CA-SBR-2845 and the observations collected by BFSA, BFSA concluded that the Site has not retained its integrity and is unlikely to contribute further information to the record of the City of Chino's prehistory. (BFSA, 2019a, p. 6.0-2 and 6.0-3) Accordingly, implementation of the Project would result in a less-than-significant impact to CA-SBR-2845.

Notwithstanding the analysis above, the former use of the Project Site and excess fill dirt sites for agricultural and/or commercial dairy uses and subsequent demolition of these uses resulted in substantial ground disturbances that may have resulted in the burying/masking of archaeological resources that could not be detected during field surveys. As such, ground-disturbing construction activities on certain areas of the Project Site and excess fill dirt sites may unearth buried/masked archaeological resources that may qualify for importance under CEQA, which is identified as a potentially significant impact for which mitigation is required.

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

Neither the Project Site nor any of the excess fill dirt sites contain a cemetery and no known formal cemeteries are located within the immediate vicinity of any of the sites. (BFSA, 2019a, pp. 4.0-2, 5.0-1 to 5.0-98) Nevertheless, as with any construction project involving earth-moving activities, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code § 7050.5 "Disturbance of Human Remains." According to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American ancestry, that may result from development of the Project would be less than significant.

4.4.5 Cumulative Impact Analysis

The potential for implementation of the Project to contribute to cumulative impacts to important historical resources was analyzed in conjunction with other projects located in areas that were once similarly influenced by the historical agricultural industry of the City of Chino and the region. Record searches and field surveys indicate the absence of significant historical sites and resources on the Project Site and Excess Fill Dirt Sites Nos. 1 through 5; therefore, implementation of the Project has no potential to contribute towards a significant cumulative impact to known historical sites and/or resources. Nonetheless, the potential exists for a buried/masked historic archaeological resource that meets the CEQA Guidelines Section § 15064.5 definition of a significant archaeological resource to be discovered during Project construction – and during the development of other properties in the region. Accordingly, implementation of the Project has the potential to contribute to a significant cumulative impact to historic archaeological sites and/or resources and mitigation is required.

The potential for implementation of the Project to result in cumulatively-considerable impacts to prehistoric archaeological resources were also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project Site and Excess Fill Dirt Sites Nos. 1 through 5. Project construction would not adversely impact any known prehistoric archaeological resources and the likelihood of uncovering buried/masked prehistoric archaeological resources during construction activities on the Project Site and the excess fill dirt sites is low due to the magnitude of disturbance that has occurred on each of the sites from historic land uses (agriculture and commercial dairies). Nonetheless, the potential exists for a buried/masked prehistoric archaeological resource that meets the CEQA Guidelines Section § 15064.5 definition of a significant archaeological resource to be discovered during Project construction – and during the development of other properties in the region. Accordingly, implementation of the Project has the potential to contribute to a significant cumulative impact to prehistoric archaeological sites and/or resources if such sites or resources are unearthed and determined to be important under CEQA; thus, mitigation is required.

Mandatory compliance with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 et seq., would assure that all future development projects within the region treat human remains that may be uncovered during development activities in accordance with prescribed, respectful and appropriate practices, thereby avoiding significant cumulative impacts.

4.4.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. None of the historical resources present within the Project Site or the excess fill dirt sites are considered to be a significant resource pursuant to CEQA Guidelines Section 15064.5. Nonetheless, the potential exists for Project construction activities to result in a direct and cumulatively-considerable impact to important historical resources that may be buried/masked on the sites.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. None of the prehistoric resources present within the Project Site or the excess fill dirt sites are considered to be a significant resource pursuant to CEQA Guidelines Section 15064.5. Nonetheless, the potential exists for Project construction activities to result in a direct and cumulatively-considerable impact to important prehistoric resources that may be buried/masked on the sites.

Threshold c: Less-than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et seq. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.

4.4.7 Mitigation

The following mitigation measures (MMs) would reduce the potential for Project construction activities involving ground disturbance to impact important buried/masked archaeological resources that may be present beneath the Project Site and/or excess fill dirt sites.

MM 4.4-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified archaeologist (hereafter "Project Archaeologist") has been retained to conduct the training and monitoring activities described in Mitigation Measure 4.4-2 and Mitigation Measure 4.4-3.

MM 4.4-2 Prior to the issuance of a grading permit, the Project Applicant or construction contractor shall provide evidence to the City of Chino that the construction site supervisors and crew members involved with grading and trenching operations have received training by the Project Archaeologist to recognize historical and archaeological resources should such resources be unearthed during ground-disturbing construction activities. The training will include a brief review of the cultural sensitivity of the area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new supervisorial construction personnel involved with grading and trenching operations that begin work on the Project Site or the excess fill dirt sites following the initial training session must take the training prior to beginning work.

MM 4.4-3 The Project Archaeologist shall conduct monitoring in the locations shown on Figure 4.4-1 through Figure 4.4-6. The Project Archaeologist shall be equipped to salvage artifacts if they are unearthed to avoid construction delays. Within the areas where full-time monitoring is required, monitoring shall occur during all grading, trenching, and excavation activities between zero and four feet below the existing ground surface. Within the areas where part-time monitoring is required, monitoring shall occur one to two times per week only during active grading, trenching, or excavation activities up to four feet below the existing ground surface. No monitoring – either part-time or full-time – is required deeper than four feet below the existing ground surface. Should the Project Archaeologist determine that there are no archaeological resources within the Project's disturbance area or should the archaeological sensitivity be reduced to low during construction activities, archaeological monitoring activities shall be allowed to cease.

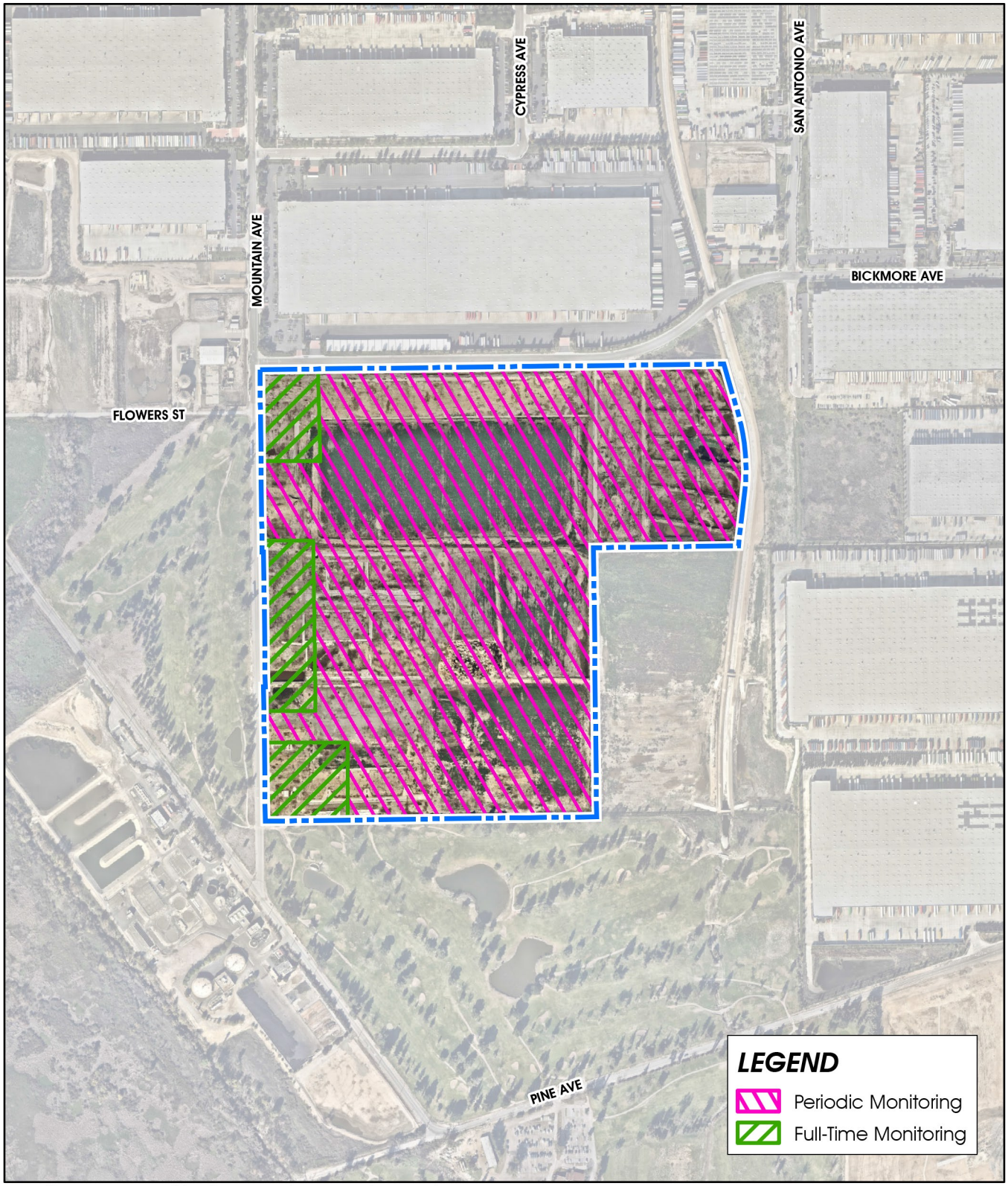
MM 4.4-4 If a suspected significant archaeological resource is found, the construction supervisor shall immediately halt and redirect grading operations in a 50-foot radius around the find and seek identification and evaluation of the suspected resource by the Project Archaeologist. This requirement shall be noted on all grading plans and the construction contractor shall be obligated to comply with the note. The Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to CEQA Guidelines Section 15064.5 and California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure 4.4-5 shall apply.

MM 4.4-5 If a significant archaeological resource is discovered, ground disturbing activities shall be suspended 50 feet around the resource until a treatment plan is implemented. A treatment

plan shall be prepared and implemented, subject to approval by the City of Chino, to protect the identified resource(s) from damage and destruction. The treatment plan shall contain a research design and data recovery program necessary to document the size and content of the discovery such that the resource(s) can be evaluated for significance under CEQA criteria. The research design shall list the sampling procedures appropriate to exhaust the research potential of the archaeological resource(s) in accordance with current professional archaeology standards. In the event the discovered resource(s) is or suspected to be of Native American origin, the treatment plan shall require monitoring by the appropriate Native American Tribe(s) during data recovery and shall require that all recovered artifacts undergo basic field analysis and documentation or laboratory analysis, whichever is appropriate. At the completion of the basic field analysis and documentation or laboratory analysis, any recovered resource(s) shall be processed and curated according to current professional repository standards. The collections and associated records shall be donated to an appropriate curation facility, or, the artifacts may be delivered to the appropriate Native American Tribe(s) if that is recommended by the City of Chino. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City of Chino, the South Central Coastal Information Center at California State University, Fullerton, and the appropriate Native American Tribe(s).

4.4.8 Significance of Impacts After Mitigation

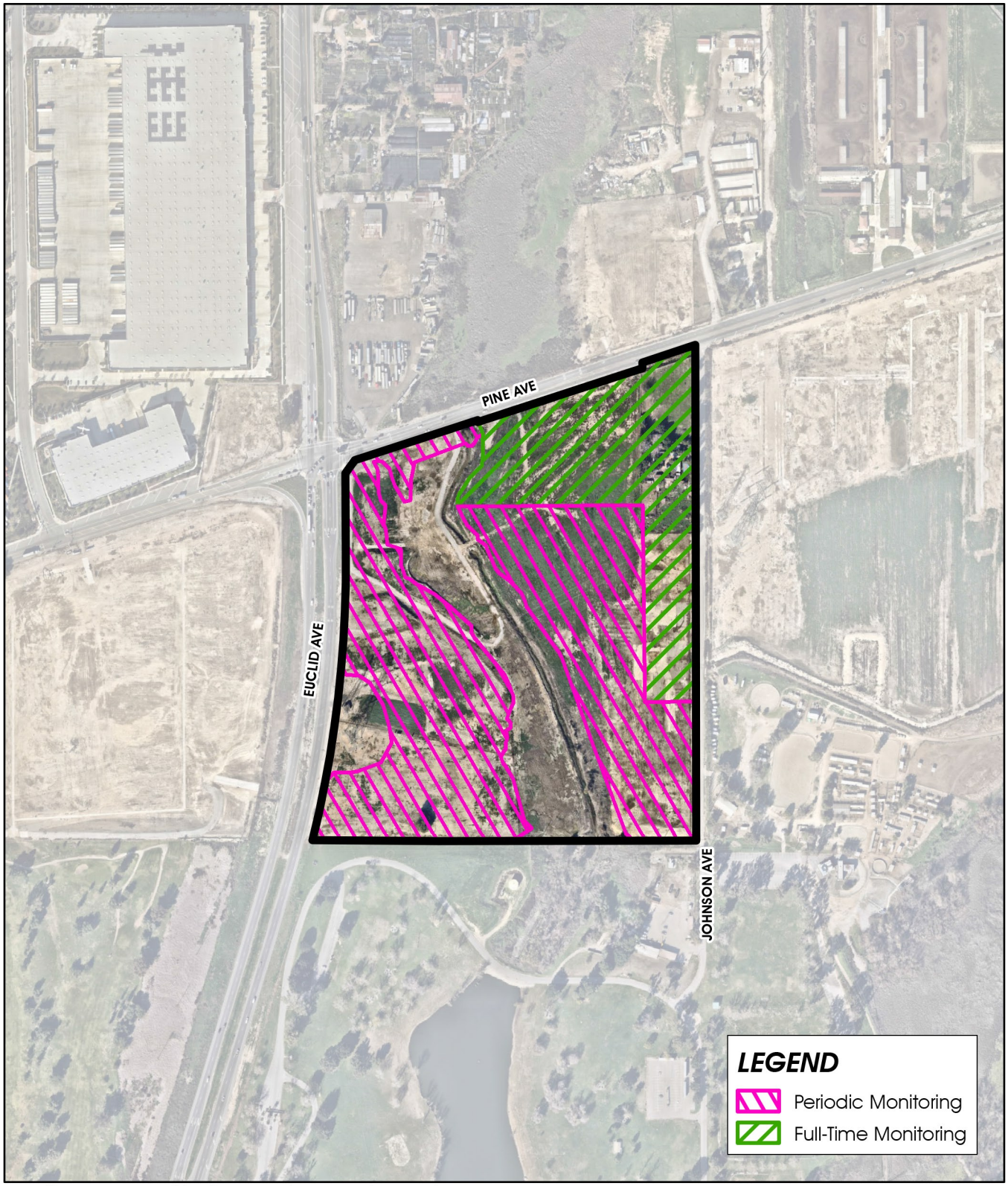
Thresholds a and b: Less-than-Significant Impact with Mitigation. Implementation of MM 4.4-1 through MM 4.4-5 would ensure the proper identification and subsequent treatment of any significant historical or archaeological resources that may be encountered during Project-related ground-disturbing activities. With implementation of the required mitigation, the Project's potential impact to significant historic and prehistoric archaeological resources would be reduced to less-than-significant.



Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

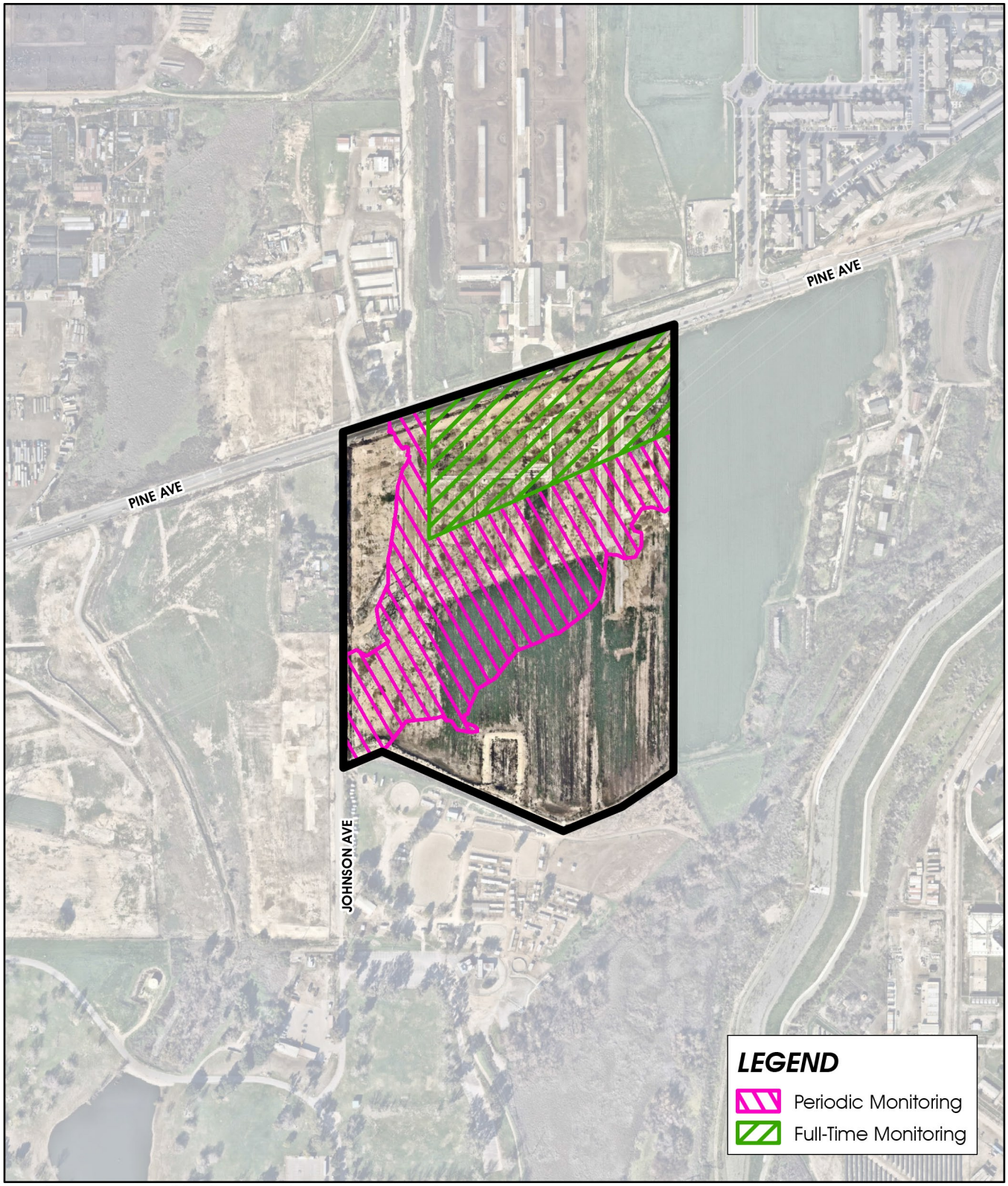
Figure 4.4-1

MONITORING LOCATION MAP: PROJECT SITE



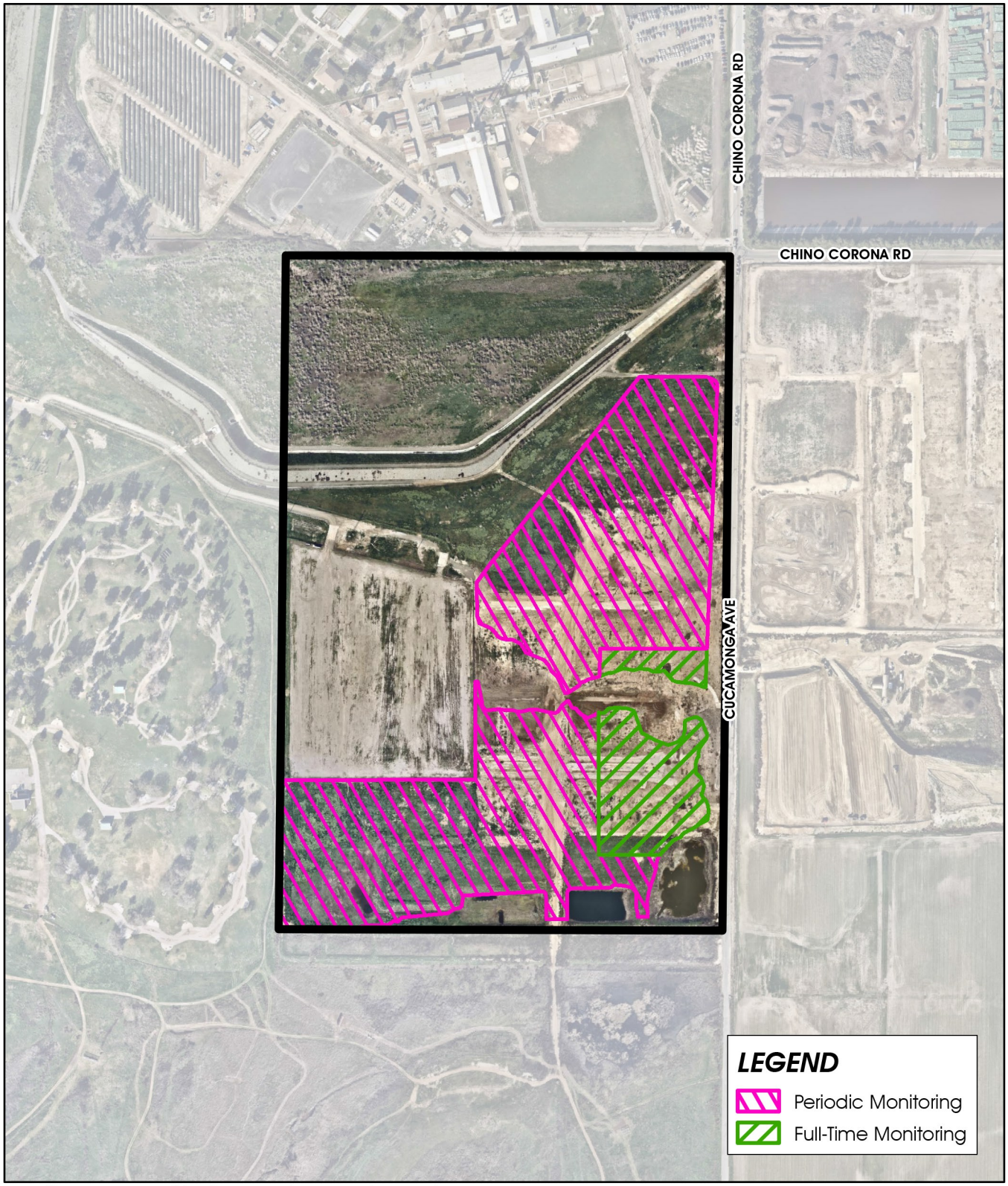
Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

Figure 4.4-2
MONITORING LOCATION MAP: EXCESS FILL DIRT SITE NO. 1



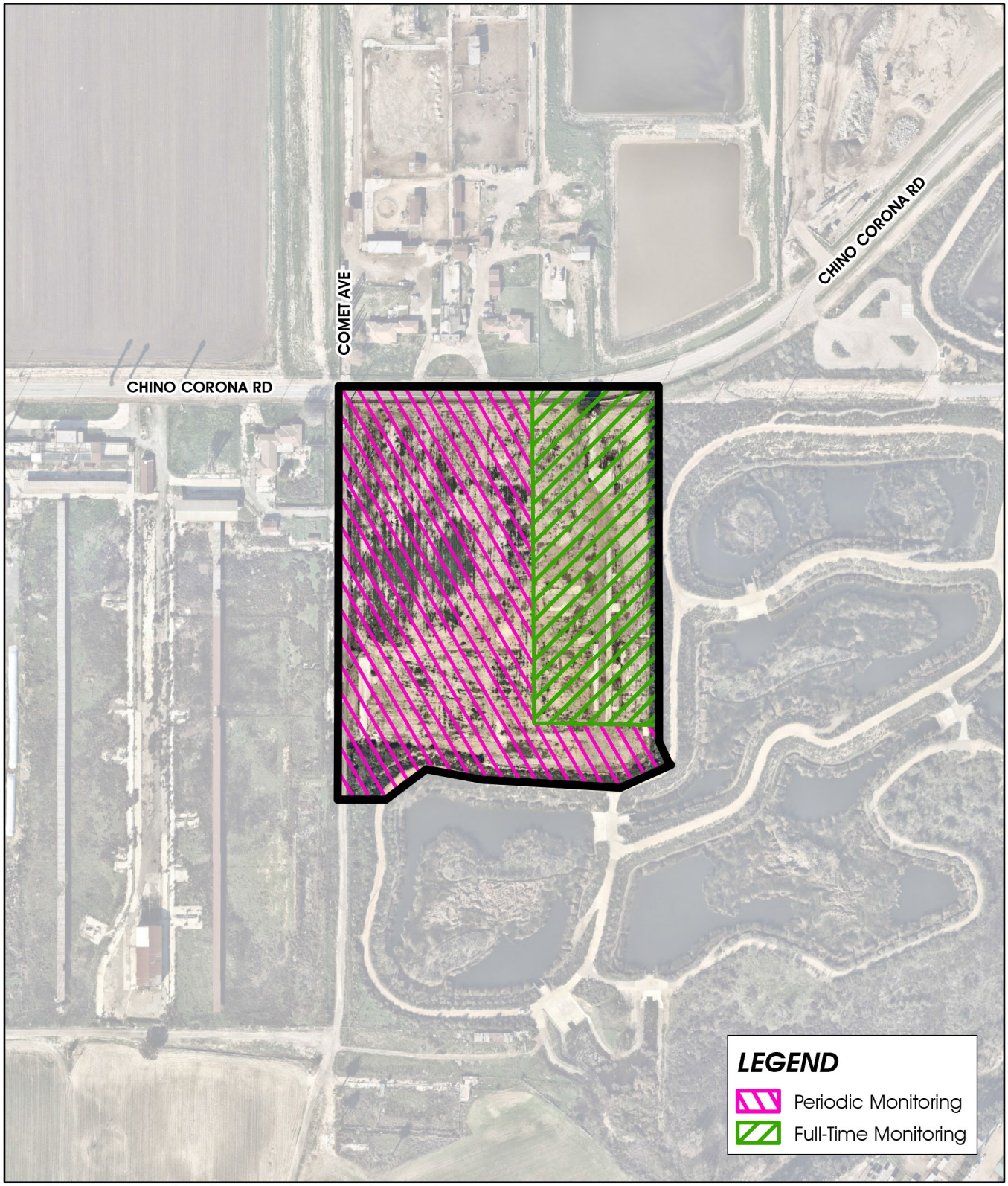
Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

Figure 4.4-3
MONITORING LOCATION MAP: EXCESS FILL DIRT SITE NO. 2



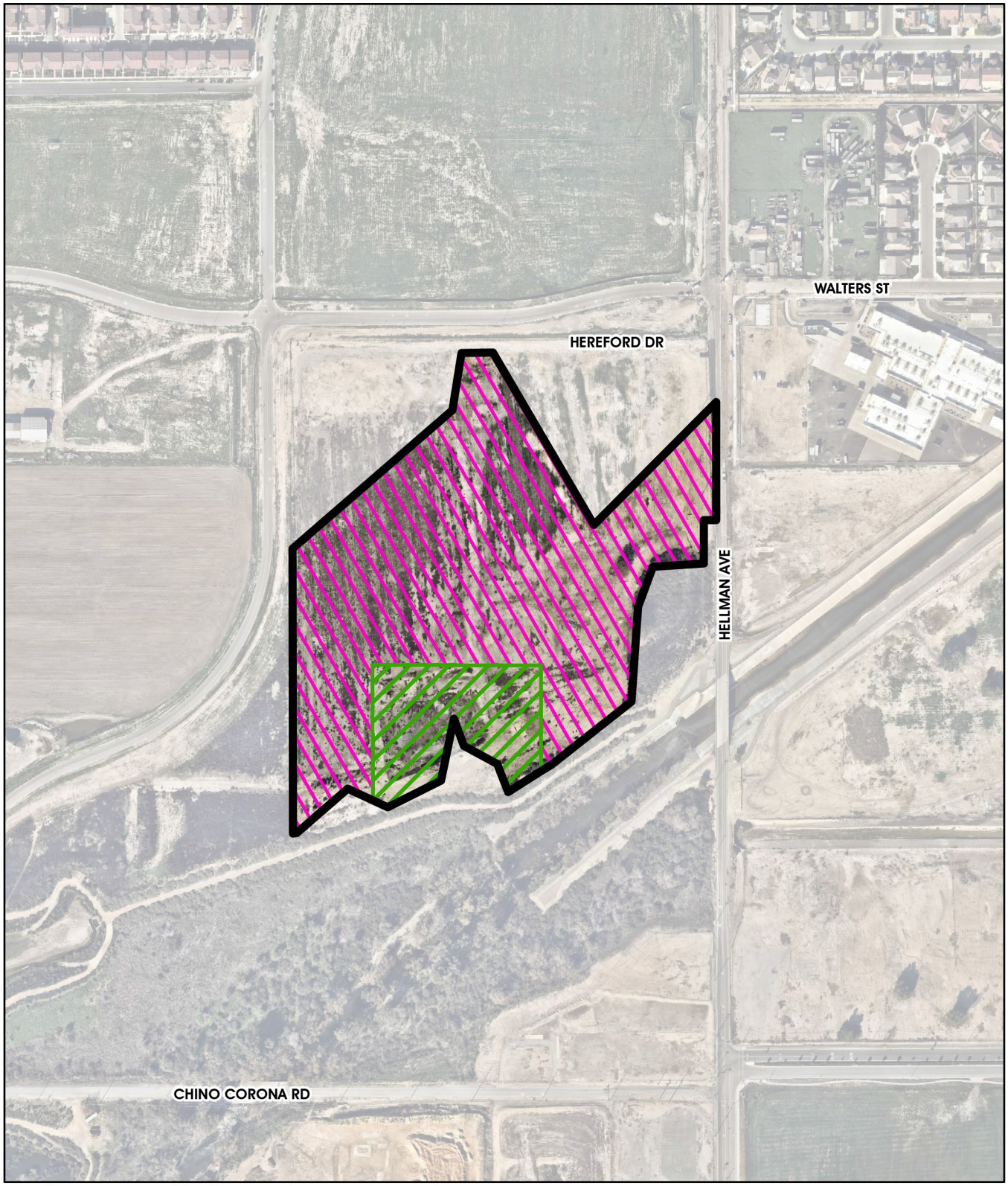
Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

Figure 4.4-4
MONITORING LOCATION MAP: EXCESS FILL DIRT SITE NO. 3



Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

Figure 4.4-5
MONITORING LOCATION MAP: EXCESS FILL DIRT SITE NO. 4



Source(s): ESRI, Nearmap Aerial (2019), Brian F. Smith & Associates (09-11-2019)

0 100 200 400 Feet

Figure 4.4-6
MONITORING LOCATION MAP: EXCESS FILL DIRT SITE NO. 5

4.5 ENERGY

The analysis in this Subsection is primarily based on two technical studies that were prepared by Urban Crossroads, Inc.: 1) "Majestic Chino Heritage Energy Analysis," dated November 6, 2019 (Urban Crossroads, 2019e); and 2) "Majestic Chino Heritage Supplemental AQ, GHG, HRA, & EA Based on EMFAC2017 Emission Rates," dated November 6, 2019 (Urban Crossroads, 2019d). These reports are provided as *Technical Appendices E* and *B4* to this EIR, respectively. The energy use calculations for vehicular sources reported in *Technical Appendix E* apply information obtained from the California Air Resources Board's (CARB's) Emission FACtors (EMFAC) 2014 emission rates. However, CARB also published EMFAC 2017 emission rates, which reflect CARB's current understanding of how vehicles travel and the types and amounts of energy they are expected to rely upon in the future based on State and federal requirements. The energy calculations for vehicular sources reported in *Technical Appendix B4* takes EMFAC 2017 into account. Because it is currently unknown with certainty whether federal regulations applicable to the automobile industry under the Trump Administration and incorporated into EMFAC 2017 will be delayed, reduced, or repealed, for full disclosure and purposes of analysis within this Subsection, the modeling results from both EMFAC2014 and EMFAC2017 are reported. Refer to Section 7.0, *References,* for a complete list of reference sources used in this Subsection.

4.5.1 EXISTING CONDITIONS

A. Electricity Consumption

Under existing conditions, the Project Site is vacant and does not consume any electricity. Excess Fill Dirt Site No. 1 is primarily vacant with a few residential structures in the northeast corner of the property that consume a nominal amount of electricity, but these structures are slated for removal. Excess Fill Dirt Site Nos. 2 through 5 are vacant and undeveloped and do not consume electricity. The Project Site is located within the service area of Southern California Edison (SCE). SCE provides electricity to a population of more than 14 million within a service area encompassing approximately 50,000 square miles. SCE obtains/produces electricity from varied energy resources including: fossil fuels, hydroelectric generators, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (Urban Crossroads, 2019e, p. 11)

B. Natural Gas Consumption

The Project Site is vacant and does not consume natural gas under existing conditions. Excess Fill Dirt Site No. 1 is primarily vacant with a few residential structures in the northeast corner of the property that consume a nominal amount of natural gas, but these structures are slated for removal. Excess Fill Dirt Site Nos. 2 through 5 are vacant and undeveloped and do not consume natural gas. The Project Site is located within the service area of the Southern California Gas Company (SoCalGas) which is regulated by the California Public Utilities Commission (CPUC). The CPUC regulates natural gas utility service for approximately 10.8 million customers and oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State of California. Based on the most recent available public data, California customers receive 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. (Urban Crossroads, 2019e, pp. 12-13)

C. Transportation Energy/Fuel Consumption

Gasoline and other vehicle fuels are commercially-provided commodities. As of 2018, there were more than 27 million passenger and light truck vehicles and 8 million medium-duty and heavy-duty vehicles on the road in California. In 2018, California vehicles consumed nearly 15.1 billion gallons of gasoline (including ethanol) and 3.9 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2016, California vehicles also consumed 194 million therms of natural gas as a transportation fuel, or the equivalent of 155 million gallons of gasoline. (Urban Crossroads, 2019e, pp. 14-15) The Project Site is vacant and does not consume transportation fuel under existing conditions. Excess Fill Dirt Site No. 1 is primarily vacant with a few residential structures in the northeast corner of the property that consume a nominal amount of transportation fuel, but these structures are slated for removal. Excess Fill Dirt Site Nos. 2 through 5 are vacant and undeveloped and do not consume transportation fuel.

4.5.2 Applicable Environmental Plans, Policies, and Regulations

A. Federal Policies and Regulations

1. Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. (Urban Crossroads, 2019e, p. 17)

2. The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of wise transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, 2019e, p. 17)

B. State Policies and Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations. The 2016 Integrated Energy Policy Report Update (2016 IEPR Update), focuses on next steps for transforming transportation energy use in California. The 2016 IEPR Update addresses the role of transportation in meeting state climate, air quality,

and energy goals; the Alternative and Renewable Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next ten years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast. (Urban Crossroads, 2019e, p. 18)

2. State of California Energy Plan

The California Energy Commission (CEC) is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. (Urban Crossroads, 2019e, p. 18)

3. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians billions in reduced electricity bills since 1977. (Urban Crossroads, 2019e, p. 19)

The newest 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. The CEC indicates that the 2019 Title 24 standards will reduce energy consumption by 30 percent for nonresidential buildings above that achieved by the prior, 2016 version of Title 24. (Urban Crossroads, 2019e, p. 19)

4. California Solar Rights and Solar Shade Control Acts

The Solar Rights Act sets parameters for establishing solar easements, prohibits ordinances and private covenants which restrict solar systems, and requires communities to consider passive solar and natural heating and cooling opportunities in new construction. This Act is applicable to all California cities and counties. California's solar access laws appear in the state's Civil, Government, Health and Safety, and Public Resources Codes. California Pub Res Code § 25980 sets forth the Solar Shade Control Act, which encourages the use of trees and other natural shading except in cases where the shading may interfere with the use of active and passive solar systems.

5. *Pavley Fuel Efficient Standards (AB 1493)*

On September 24, 2009, the California Air Resources Board (CARB) adopted amendments to the "Pavley" regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016 and cemented California's enforcement of the Pavley rule starting in 2009, while providing vehicle manufacturers with new compliance flexibility. The amendments were also intended to prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, 2017)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the U.S. EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, 2017)

The CARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, 2017)

The regulations had been threatened by automaker lawsuits and were stalled by the U.S. EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it was expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, 2017)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, 2017)

6. *Advanced Clean Cars Program*

In 2012, the California Air Resources Board (CARB) adopted a set of regulations to control emissions from passenger vehicle model years 2017 through 2025, collectively called Advanced Clean Cars. Advanced Clean Cars, developed in coordination with the United States Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA), combined the control of smog-causing (criteria) pollutants and greenhouse gas (GHG) emissions into a single coordinated package of regulations: the Low-Emission Vehicle III Regulation for criteria (LEV III Criteria) and GHG (LEV III GHG) emissions, and a technology-forcing mandate for zero-emission vehicles (ZEV). The goal of the program is to guide the development of environmentally advanced cars that would continue to deliver the performance, utility, and safety car owners have come to expect. Advanced Clean Cars includes the following elements: (CARB, 2019c)

- LEV III Criteria: Reducing Smog-Forming Pollution. CARB adopted new emission standards to reduce smog-forming emissions (also known as "criteria pollutants") beginning with 2015 model year vehicles. The goal of this regulation is to have cars emit 75 percent less smog-forming pollution than the average car sold in 2012 by 2025.
- LEV III GHG: Reducing GHG Emissions. California's GHG regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent (from 2012 model vehicles) in 2025.
- ZEV Regulation: Promoting the Cleanest Cars. The ZEV regulation is designed to achieve the State's long-term emission reduction goals by requiring auto manufacturers to offer for sale specific numbers of the very cleanest cars available. These vehicle technologies include full battery-electric, hydrogen fuel cell, and plug-in hybrid-electric vehicles. Updated estimates using publicly available information show about 8 percent of California new vehicle sales in 2025 will be ZEVs and plug-in hybrids.

7. California Renewable Portfolio Standard (SB 1078 and SB 350)

SB 1078 requires electricity retailers to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020. Additionally, former Governor Edmund G. Brown, Jr. signed into legislation Senate Bill 350 in October 2015, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. The California Energy Commission (CEC) and the CPUC work collaboratively to implement the RPS. The CPUC implements and administers Renewable Portfolio Standards (RPS) compliance rules for California's retail sellers of electricity, which include investor-owned utilities (IOU), public owned utilities (POUs), electric service providers (ESP) and community choice aggregators (CCA). The CEC is responsible for the certification of electrical generation facilities as eligible renewable energy resources, and adopting regulations for the enforcement of RPS procurement requirements of POUs. In 2016, California's three large IOUs (Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric) collectively served 34.76% of their retail electricity sales with renewable power. The IOU's utilize a mix of RPS resources such a wind, solar PV, solar thermal, hydroelectricity, geothermal, and bioenergy to meet their renewable procurement targets. Southern California Edison (the IOU that provides electricity to the Project Site) served 28% of their retail electricity sales with renewable power in 2016. (CPUC, 2019)

C. Local Policies and Regulations

1. City of Chino Green Building Standards Code

In addition to the aforementioned federal and State regulations related to energy, the City of Chino adopted the California Green Building Standards Code (2019 Edition). Accordingly, the City's Green Building Standards Code regulates and controls the design, construction, quality of materials, grading, use, occupancy, location, and maintenance of all buildings or structures within the City. (Chino, 2019, § 15.42.010)

4.5.3 Methodology for Calculating Project Energy Demands

Information from the CalEEMod 2016.3.2 outputs for the Project's air quality impact analysis (*Technical Appendix B1*) was utilized in the Project's energy analysis (*Technical Appendix E*) and the analysis presented herein, detailing Project-related construction equipment, transportation energy demands, and facility energy

demands. These outputs are referenced in Appendices 3.1 and 3.2 of *Technical Appendix E* and Attachments A and B of *Technical Appendix B4*. Additionally, CARB's EMFAC2014 and EMFAC2017 model were used to calculate emission rates, fuel consumption, and vehicle miles traveled (VMT) for light duty vehicles, light-heavy duty trucks, medium-heavy duty trucks, and heavy-heavy duty trucks traveling to and from the Project Site during construction and operational activities. Data from the EMFAC 2014 model outputs are included in Appendix 3.3 of *Technical Appendix E* and data from the EMFAC 2017 model outputs are included in Attachment C of *Technical Appendix B4*.

4.5.4 Basis for Determining Significance

The proposed Project would result in a significant impact to energy if the Project or any Project-related component would:

a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to energy that could result from development projects.

Regarding the determination of significance under Threshold "a," if energy consumed by the Project's construction and/or operation cannot be accommodated with existing available resources and energy delivery systems, and requires and/or consumes more energy than industrial uses in California of similar scale and intensity, the Project would result in wasteful, inefficient, or unnecessary consumption of energy.

4.5.5 Impact Analysis

Threshold a:	***Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

❑ **Energy Use During Construction**

The Project's construction process would consume electrical energy and fuel. Project-related construction would represent a "single-event" electric energy and fuel demand and would not require on-going or permanent commitment of energy or diesel fuel resources for this purpose. In summary, Project-related construction is estimated to consume approximately 1,087,169 kilowatt hours (kWh) of electricity, approximately 129,968 gallons of diesel fuel from the operation of construction equipment, 192,601 gallons (using EMFAC2014) or 180,457 gallons (using EMFAC2017) of diesel fuel from construction vendor trips, and 209,827 gallons (using EMFAC2014) or 212,615 gallons (using EMFAC2017) of fuel from construction worker trips (Urban Crossroads, 2019e, pp. 21-27; Urban Crossroads, 2019d, pp. 9-13). Refer to Subsection 4.3 from *Technical Appendix E* and pages 9 through 13 of *Technical Appendix B4* for detailed calculations of all components of the Project's construction energy use.

The equipment used for Project construction would be required by law to conform to applicable CARB regulations and State emissions standards. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities elsewhere in the region; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Additionally, Project construction activities would be required to comply with State law (Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(3)) and CARB Air Toxic Control Measures that place restrictions on the length of time that diesel-powered equipment and vehicles can idle before powering down (thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment). Lastly, Project construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of older, less-efficient diesel off-road construction equipment. (Urban Crossroads, 2019e, pp. 27-28) Accordingly, the equipment and vehicles employed in construction of the Project would not result in inefficient wasteful, or unnecessary consumption of fuel.

Indirectly, the Project would realize construction energy efficiencies and energy conservation through the bulk purchase, transport and use of construction materials. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations. (Urban Crossroads, 2019e, p. 28)

As supported by the preceding discussion, the Project's construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary, and impacts would be less than significant.

❑ Energy Use During Project Operations

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project Site) and facility energy demands (energy consumed by building operations and site maintenance activities). Related to transportation energy demands, Project operational traffic is estimated to travel approximately 27,040,638 miles annually, which would result in the consumption of 1,835,086 gallons of fuel. Related to facility energy demands, if the building tenants require gas, the proposed cross-dock industrial buildings are estimated to consume approximately 9,200,880 kilo-British thermal units (kBTU) of natural gas per year. For electrical power, the cross-dock industrial buildings are estimated to consume approximately 9,247,438 kWh of electricity per year. (Urban Crossroads, 2019e, pp. 28-34) Refer to Subsection 4.4 from *Technical Appendix E* for detailed calculations of all components of the Project's operational energy use.

From a transportation energy perspective, the Project Site's location proximate to regional and local roadway systems would tend to reduce VMT within the region, acting to reduce regional vehicle energy demands. Furthermore, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption (Urban Crossroads, 2019e, pp. 33-34). The Project's industrial buildings are anticipated to attract users involved in the goods movement and supply chain sector of the Southern California economy. The Southern California Association of Governments' (SCAG's) released their draft *Connect SoCal* plan (also known as the 2020-2045

Regional Transportation Plan/Sustainable Communities Strategy or *RTP/SCS*) for public review and comment in November, 2019. The draft 2020-2045 RTP/SCS includes a technical appendix titled "Goods Movement," which generally refers to the movement of materials and products used by businesses and residents across the transportation system. SCAG recognizes that "the efficient movement of these goods is a critical component of a strong economy and improves quality of life in the SCAG region" (SCAG, 2019c, p. 3). SCAG also reports that east-west corridors, including State Route 60 (SR-60) and Interstate 10 (I-10), provide access to major warehouse clusters in the Inland Empire and that SR-60 is a primary access route to many of these locations with over 50 percent of the region's warehouse space located within five miles of the highway (SCAG, 2019c, p. 13). As such, locating the proposed Project within approximately five miles of SR-60 provides for transportation energy-use efficiency region-wide by locating two cross-dock industrial buildings in a cluster of other, similar buildings that capitalize on a coordinated regional goods movement system. Specifically, the Project Site is (in direct linear distance) approximately 5.0 miles south of SR-60.

From a building operation energy perspective, the proposed Project entails conventional cross-dock industrial building uses that reflect contemporary energy efficient/energy conserving designs and operational programs (including enhanced building/utilities energy efficiencies mandated by the California Green Building Standards Code (CalGreen)). The Project, anticipated to begin construction in 2021, will be subject to compliance with CalGreen 2019 standards, which became effective on January 1, 2020 and mandate energy conservation features that are more stringent (energy-conserving) than prior versions of CalGreen. On this basis, the Project would inherently use less energy than comparable buildings constructed under prior versions of CalGreen. Project building operations would not result in the inefficient, wasteful, or unnecessary consumption of energy due to mandatory CalGreen compliance. Furthermore, the Project Site is within the existing service areas of SCE and SoCal Gas and implementation of the Project would not cause or result in the need for additional energy facilities or energy delivery systems.

As supported by the preceding discussion, the Project's operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. Impacts would be less than significant.

Threshold b: Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The following section analyzes the Project's consistency with the applicable federal, State, and local regulations for renewable energy or energy efficiency.

❑ Consistency with Federal Energy Regulations

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

Transportation and access to the Project Site is provided primarily by the local and regional roadway systems, which includes Mountain Avenue and Bickmore Avenue. Implementation of the Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project Site. (Urban Crossroads, 2019e, p. 17)

The Transportation Equity Act for the 21st Century (TEA-21)

The Project Site is located along major transportation corridors with proximate access to the interstate freeway system (i.e., SR-71 and SR-83 Highways). The location of the Project Site facilitates access, acts to reduce VMT, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar industrial uses. Accordingly, the Project supports the strong planning processes emphasized under TEA-21 and is therefore consistent with, and would not otherwise interfere with or obstruct implementation of TEA-21. (Urban Crossroads, 2019e, p. 17)

❑ Consistency with State Energy Regulations

Integrated Energy Policy Report

The IEPR provides policy recommendations to be implemented by energy providers in California. Electricity would be provided to the Project by SCE. SCE's Clean Power and Electrification Pathway (CPEP) white paper builds on existing State programs and policies that support the IEPR goals of improving electricity, natural gas, and transportation fuel energy use in California. SCE is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2018 IEPR. Thus, because the SCE is consistent with the 2018 IEPR and the SCE provides electricity to the Project, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2018 IEPR. (Urban Crossroads, 2019e, p. 18)

State of California Energy Plan

The Project Site is located along Mountain Avenue and Bickmore Avenue with proximate access to the SR-71 and SR-83 Highways. The location of the Project Site facilitates access, acts to reduce VMT, and takes advantage of existing infrastructure systems. Therefore, the Project supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, 2019e, p. 18)

California Code Title 24, Part 6, Energy Efficiency Standards

The Project would design building shells and building components, such as windows; roof systems; electrical and lighting systems; and heating, ventilating, and air conditioning systems to meet 2019 Title 24 Standards. The Project also is required by State law to be designed, constructed, and operated to meet or exceed Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards. (Urban Crossroads, 2019e, p. 19)

Pavley Fuel Efficiency Standards (AB 1493)

AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project Site are required by law to comply with the legislation's fuel efficiency requirements. The Project is a proposed industrial facility that would not interfere with, nor otherwise obstruct implementation of AB 1493.

Advanced Clean Cars Program

The CARB Advanced Clean Cars Program is applicable to the Project because model year 2007-2025 passenger cars and light duty truck vehicles traveling to and from the Project Site are required by law to comply with the regulation's emissions requirements. The Project is a proposed warehouse facility that would not interfere with, nor otherwise obstruct implementation of the Advanced Clean Cars Program.

California Renewable Portfolio Standards (SB 1078)

Energy directly or indirectly supplied to the Project Site by electric corporations is required by law to comply with SB 1078.

❑ Consistency with Local Energy Regulations

California Green Building Standards Code

The City of Chino would require the Project to be designed, constructed, and operated to meet or exceed the California Green Building Standards Code (as adopted by the Chino Municipal Code Chapter 15.42). On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of the Green Building Standards Code.

❑ Conclusion

As supported by the preceding analysis, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and a less-than-significant impact would occur.

4.5.6 Cumulative Impact Analysis

The Project and other new development projects within the cumulative study area would be required to comply with all of the same applicable federal, State, and local regulatory measures aimed at reducing fossil fuel consumption and the conservation of energy. With respect to energy consumption, the analysis above demonstrates that the Project's construction and operational characteristics would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Other development projects in the local area, region, and across California that submit building plans after January 1, 2020, would be required to comply with CalGreen 2019, which is one of the most energy-efficient State building codes in the country. In addition, other development projects requiring discretionary government approvals in California would be subject to CEQA and similarly would be required to demonstrate that no wasteful, inefficient, or unnecessary consumption of energy resources would occur. Accordingly, the Project would not cause or contribute to a significant cumulatively-considerable impact related to conflicts with a State or local plan for renewable energy or energy efficiency, and cumulatively-considerable impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant.

4.5.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.

Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.

4.5.8 MITIGATION

Impact would be less than significant; therefore, mitigation is not required.

4.6 GEOLOGY AND SOILS

The information and analysis presented in this Subsection is based on seven reports that assess the existing surface and subsurface geologic conditions at the Project Site and each of the excess fill dirt sites, as listed below.

- The report titled, "Construction Level Geotechnical Study Majestic Chino Logistic Center Southeast Corner of Bickmore Avenue and Mountain Avenue City of Chino, California," dated February 14, 2019, and prepared by Koury Engineering & Testing, Inc. (hereafter, "Koury") (Koury, 2019a). This report addresses the Project Site and is included as *Technical Appendix F1* to this EIR.
- The report titled, "Borrow Site Geotechnical Study, Phase I OC Prado – Borrow Site Southeast Corner of Pine Avenue and Euclid Avenue Chino, California," dated April 24, 2017, and prepared by Koury (Koury, 2017a). This report addresses Excess Fill Dirt Site No. 1 and is included as *Technical Appendix F2* to this EIR.
- The report titled, "Feasibility Study, Proposed East Borrow Site Southeast Corner of Pine Avenue & Johnson Avenue City of Chino, CA," dated June 26, 2017, and prepared by Koury (Koury, 2017b). This report addresses Excess Fill Dirt Site No. 2 and is included as *Technical Appendix F3* to this EIR.
- The report titled, "Limited Borrow Site Study Borrow Site No. 3 (Export Fill Dirt Site No. 3) Cucamonga Avenue and West County Road City of Chino, CA," dated July 22, 2018, and prepared by Koury (Koury, 2018a). This report addresses Excess Fill Dirt Site No. 2 and is included as *Technical Appendix F4* to this EIR.
- The report titled "Limited Borrow Site Feasibility Study Alternative Borrow Site 6 SEC of East County Road and Chino Corona Road City of Chino, California," dated March 16, 2018, and prepared by Koury (Koury, 2018b). This report addresses Excess Fill Dirt Site No. 4 and is included as *Technical Appendix F5* to this EIR.
- The report titled, "Limited Borrow Site Feasibility Study Alternative Borrow Site 5 Southwest Corner of Hereford Drive and Hellman Avenue City of Chino, California," dated April 16, 2019, and prepared by Koury (Koury, 2019b). This report addresses Excess Fill Dirt Site No. 5 and is included as *Technical Appendix F6* to this EIR.
- The report titled, "Paleontological Resource and Monitoring Assessment for the proposed Majestic Chino Heritage Project in the City of Chino, San Bernardino County, California," dated September 10, 2019, and prepared by Brian F. Smith and Associates (hereafter, "BFSA") (BFSA, 2019b). This report addresses the Project Site and all excess fill dirt sites and is included as *Technical Appendix G* to this EIR.

Additional sources of information used to support the analysis in this Subsection include the Geology and Soils section (Section 4.6) of the certified Final Program EIR prepared for the City of Chino General Plan (Chino, 2010b) and the City of Chino Municipal Code (Chino, 2019). Refer to Section 7.0, *References*, for a complete list of reference sources used in this analysis.

4.6.1 Existing Conditions

A. *Soils*

The characteristics of the soil conditions observed on the Project Site and the excess fill dirt sites are summarized below.

1. *Project Site*

The Project Site is underlain by artificial fill and alluvial deposits. The artificial fill is generally 1 to 3 feet thick but can vary in thickness up to 7 feet. The artificial fill consists predominantly of medium plastic clay (lean clay with sand and sandy lean clay). Beneath the artificial fill is a layer of younger alluvium, which ranges in thickness from about 2 to 6 feet and consists predominantly of lean clay with sand with localized areas of fat clay. Older alluvium, predominantly consisting of fat and lean clay, was encountered underneath the younger alluvium at depths generally between 3.5 and 6 feet below the ground surface. (Koury, 2019a, p. 5)

2. *Excess Fill Dirt Site No. 1*

Excess Fill Dirt Site No. 1 is underlain by artificial fill and alluvial deposits. Artificial fill soils extend to depths up to 15 feet below the ground surface with alluvial deposits below. Subsurface soils encountered on Excess Fill Dirt Site No. 1 are characterized as lean clay and fat clay with variable concentrations of sand, as well as sandy silt, elastic silt, clayey sand and silty sand. (Koury, 2017a, p. 5)

3. *Excess Fill Dirt Site No. 2*

Excess Fill Dirt Site No. 2 is underlain by artificial fill and alluvial deposits. The artificial fill is generally 1 to 3 feet thick but can vary in thickness up to 5 feet. The artificial fill consists predominantly of medium plastic clay (lean clay with sand and sandy lean clay). Beneath the artificial fill are alluvium soils consisting predominantly of medium plastic clay with sand and interbeds of sandy lean clay and fat clay. (Koury, 2017b, p. 5)

4. *Excess Fill Dirt Site No. 3*

Excess Fill Dirt Site No. 3 contains artificial fill soils at/near the surface and alluvial soils at depth. Artificial fill soils were encountered at depths between less than 1 foot to 6 feet; artificial fill soils consisted of lean clay with sand, sandy lean clay, and thin layers of clayey sand and silty sand at or near the surface with localized areas of fat clay. Organic material, including manure, also was encountered near the surface on portions of the site. The alluvium soils present beneath the artificial fill consist predominantly of stiff to very stiff, medium to high plastic sandy clay, lean clay with sand, fat clay and sandy silt; some clayey sand and silty sand were encountered at depths below 12 feet. (Koury, 2018a, pp. 2-3)

5. *Excess Fill Dirt Site No. 4*

Excess Fill Dirt Site No. 4 is underlain by artificial fill and alluvial soils. The artificial fill soils were generally encountered up to depth of approximately 1 foot across Excess Fill Dirt Site No. 4; however, there were localized areas where artificial fills were encountered up to 6 feet below the ground surface. Observed artificial fills consisted predominantly of lean clay with sand and sandy lean clay. The alluvium soils found

beneath the artificial fill soils consist of stiff to very stiff medium plastic to high plastic sandy clay and clay with sand; discrete layers of silty sand, clayey sand, and sand with silt were encountered at depths between approximately 9 to 17.5 feet. (Koury, 2018b, p. 2)

6. Excess Fill Dirt Site No. 5

Excess Fill Dirt Site No. 5 is underlain by artificial fill and alluvial soils. The on-site artificial fill soils generally consist of lean clay with sand and sandy lean clay, and includes fat clay, clayey sand, silty sand, and construction debris and were encountered at depths ranging up to 1 to 3 feet below the ground surface with localized areas of deeper fill soils. Alluvium soils characterized as stiff to very stiff medium plastic to high plastic sandy clay and clay with sand were observed below the fill soils. Discrete layers of silty sand were encountered on Excess Fill Dirt Site No. 5 at depths ranging between 12.5 to 17 feet below the ground surface. (Koury, 2019b, p. 3)

B. Water

Koury did not observe any surface water at the Project Site or at any of the excess fill dirt sites but did encounter groundwater in subsurface borings at the Project Site (at depths ranging between 24 and 44 feet), at Excess Fill Dirt Site No. 1 (at depths ranging between 6 and 30 feet), at Excess Fill Dirt Site No. 2 (at depths ranging between 21.5 and 27 feet), and at Excess Fill Dirt Site No. 3 (at a depth of 13.5). Koury did not encounter groundwater in subsurface borings at Excess Fill Dirt Sites Nos. 4 and 5. (Koury, 2019a, p. 9; Koury, 2017a, p. 7; Koury, 2017b, p. 4; Koury, 2018a, p. 5; Koury, 2018b, p. 4; Koury, 2019b, p. 4)

C. Seismic Hazards

The geologic structure of southern California is dominated mainly by northwest-trending faults associated with the San Andreas system and the region is subject to strong ground motions during seismic events (i.e., earthquakes). Geologic hazards associated with seismic events include surface rupture, ground failure, and soil/slope instability. Each of these hazards is briefly described below.

1. Fault Rupture

Fault rupture can occur along pre-existing, known active fault traces; however, fault rupture also can splay from known active faults or rupture along unidentified fault traces. The Chino-Central Avenue Fault trends through the southwest corner of the Project Site; however, this Fault is not known to have moved during the last 11,000 years and, therefore, does not meet the California Geological Survey (CGS) definition of an "active" fault. The nearest active fault to the Project Site is the Chino Fault, located approximately 1.4 miles (in direct linear distance) southwest of the Project Site. (Koury, 2019a, p. 11; Chino, 2010b, Figure 4.6-1)

There are neither any active faults on Excess Fill Dirt Sites Nos. 1 through 5 nor any known or mapped faults trending through or toward any of the excess fill dirt sites. (Chino, 2010b, Figure 4.6-1; CGS, 2019)

2. Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is

generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils of Holocene to late Pleistocene age below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion (Southern California Earthquake Center, 1999, pp. 5-6).

According to the seismic hazards map provided by the California Geological Survey (CGS), neither the Project Site nor any of the excess fill dirt sites are located within a designated liquefaction hazard zone (Koury, 2019a, p. 12; CGS, 2019).

3. Unstable Soils and Slopes

The Project Site and Excess Fill Dirt Sites Nos. 1 through 5 are generally flat and do not contain, nor are adjacent to any, steep natural or manufactured slopes and there is no evidence of past landslides or rockfalls on any of the sites (Google Earth Pro, 2019). In addition, neither the Project Site nor any of the excess fill dirt sites are mapped by the CGS as being located within a landslide zone or landslide hazard area (CGS, 2019).

D. Slope and Soil Instability Hazards

1. Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. According to the City of Chino General Plan EIR, soils on the Project Site, the five excess fill dirt sites, and in the surrounding area are moderately susceptible to water erosion (Chino, 2010b, p. 4.6-7).

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. Wind erosion may occur wherever soil is loose, dry, and finely granulated but primarily affects dry, sandy soils in flat, bare areas. According to the City of Chino General Plan EIR, soils on the Project Site, the five excess fill dirt sites, and in the surrounding area are moderately susceptible to wind erosion (Chino, 2010b, p. 4.6-7).

2. Soil Expansion Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Soil testing conducted by Koury identified soils with "moderate" to "very high" susceptibility for expansion on the Project Site and at all excess fill dirt sites. (Koury, 2019a, p. 31; Koury, 2017a, p. 8; Koury, 2017b, p. 3; Koury, 2018a, p. 3; Koury, 2018b, p. 3; Koury, 2019b, p. 3)

E. Paleontological Resources

The Project Site and the excess fill dirt sites are located on the distal margins of the broad alluvial floodplain of the ancestral Santa Ana River that is underlain by Quaternary (early Pleistocene) very old alluvial fan deposits and late Quaternary (latest Pleistocene and Holocene) sandy axial channel deposits (BFSA, 2019b, p. 1). The City of Chino's General Plan EIR acknowledges that Pleistocene and Holocene alluvium deposits in the City have the potential to yield fossils of importance and that fossils of vertebrate land mammals, including mammoth, ground sloth, camel, bison, horse, and deer fossils, have been discovered in the City (Chino, 2010b, pp. 4.5-9 and 4.5-10).

BFSA reviewed records databases at the San Bernardino County Museum (SBCM) and Natural History Museum of Los Angeles County (LACM) to determine whether fossils have been recovered on or in proximity of the Project Site or elsewhere in southern California from the same geologic deposits that underlie the Project Site and excess fill dirt sites. None of these records searches revealed any previously recorded fossils on the Project Site or at any of the excess fill dirt sites. The closest known fossil localities were collected during excavations associated with the construction of the Cucamonga Creek Channel, approximately 2.5 to 4.5 miles in direct linear distance east-northeast of the Project Site. The fossils recovered during the Cucamonga Creek Channel excavations – extinct camel (*Camelops* sp., cf. *C. hesternus*) and extant bighorn sheep (*Ovis canadensis*) – were found within same types of ancestral Santa Ana River fluvial (floodplain) sediments that are present in broad areas around the Santa Ana River floodplain and also beneath the Project Site and the excess fill dirt sites. The previously-discovered fossil localities in Pleistocene-age deposits located 2.5 to 4.5 miles from the Project Site suggests that these soils in the southern portion of the City of Chino and which occur on the Project Site and the excess fill dirt sites have a high paleontological sensitivity. (BFSA, 2019b, pp. 1-2)

4.6.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to geology and soils.

A. Federal Plans, Policies, and Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2019d)

B. State Plans, Policies, and Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P-Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. (CDC, 2019b)

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. ["Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires. (CDC, 2019b)

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). (CDC, 2019b)

Under existing conditions, neither the Project Site nor any of the excess fill dirt sites are located within a designated Alquist-Priolo Earthquake Fault Zone (CGS, 2019).

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CDC, 2019c)

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CDC, 2019c)

The SHMA requires site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CDC, 2019c)

Under existing conditions, neither the Project Site nor any of the excess fill dirt sites are located within a Seismic Hazard Zone area (CGS, 2019).

3. Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CDC, 2019c)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CDC, 2019c)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologists and/or civil engineers. (CDC, 2019c)

4. Building Earthquake Safety Act

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be "…designed and constructed to minimize fire hazards and to resist…the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, § 16000 through 16022. In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3. (CAB, 2019)

5. California Building Standards Code (Title 24)

California Code of Regulations (CCR) Title 24 is reserved for State regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Health and Safety Code (state law) § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2019)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of

California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2019)

6. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California, which pertains in part to soil erosion and sedimentation in waters. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that

contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project Site, excess fill dirt sites, and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

C. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The Safety Element of the City of Chino General Plan provides information about natural and human-made hazards in Chino and establishes goals, objectives, and policies to prepare and protect the community from such risks. The Safety Element states that the City shall reduce the risk of geologic hazards to the community by enforcing building codes, requiring the preparation of soils and geologic reports, and using the most current and comprehensive geological hazard mapping available to assist in the evaluation go potential seismic hazards to proposed new development. (Chino, 2010a)

2. City of Chino Building Code

The City of Chino Building Code is based on the CBSC and is supplemented with local amendments. The Building Code regulates the construction, alteration, repair, moving, demolition, conversion, occupancy, use, and maintenance of all buildings and structures in the City of Chino. The Building Code is included in Chapter 15 of the City of Chino Municipal Code. (Chino, 2019)

3. City of Chino Municipal Code

The City of Chino Municipal Code (§ 19.08.010) requires development projects to be evaluated by geologic engineering reports that identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse impacts from unstable soils and strong seismic ground-shaking. These reports shall recommend corrective action to preclude any structural damage/hazards that may be caused by geological hazards or unstable soils. (Chino, 2019)

The City of Chino Municipal Code (§ 19.09.030) also requires development projects to incorporate an erosion and dust control plan into proposed clearing/grubbing, stockpile, grading, or demolition activities to minimize water- and windborne erosion. Specific dust control measures – and a schedule for implementation – are required to be listed on the grading/construction plan as well as the name and contact information of the person responsible for carrying out the dust control measures. The erosion and dust control plan is required to be approved by City of Chino staff prior to the issuance of the applicable construction permit. (Chino, 2019)

4.6.3 Basis for Determining Significance

The proposed Project would result in a significant impact related to geology and soils if the Project or any Project-related component would:

a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:*
   i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of known fault;*
   ii. *Strong seismic ground shaking;*
   iii. *Seismic-related ground failure, including liquefaction; or*
   iv. *Landslides.*
b. *Result in substantial soil erosion or the loss of topsoil;*
c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;*
e. *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or*
f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to geology and soils that could result from development projects.

4.6.4 Impact Analysis

Threshold a: ***Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:***

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

ii. Strong seismic ground shaking?

iii. Seismic-related ground failure, including liquefaction?

iv. Landslides?

A. Rupture of Known Earthquake Fault

There are no known active faults on the Project Site or on any of the five potential excess fill dirt sites; therefore, implementation of the Project would not directly or indirectly expose construction workers (in the

short-term) or future Project employees (in the long-term) to adverse effects related to rupture of a known, active earthquake fault (Koury, 2019a, p. 11; CGS, 2019) A portion of the Chino-Central Avenue Fault trends through the southwest corner of the Project Site; however, this fault is not classified by the CGS as "active" because it is not known to have moved within the last 11,000 years. Furthermore, Koury did not identify any potential hazards for the Project related to surface rupture of the Chino-Central Avenue Fault. (Koury, 2019a, p. 11) Based on the foregoing information, this EIR concludes that implementation of the Project would result in no impact related to rupture of a known earthquake fault.

B. Strong Seismic Ground Shaking

The Project Site, the Project's off-site improvement areas, and the five excess fill dirt sites that would be used or potentially used as part of the Project's construction, are located in a seismically active area of southern California. As such, these locations are expected to experience ground shaking during a seismic event. This potential for seismic ground shaking is no different than the potential ground shaking risk experienced by other properties throughout the southern California area.

No structures would be constructed on the excess fill dirt sites as a result of the Project. The construction activities (excavation of fill dirt) would not alter the exposure risk of structures or people to seismic-related ground shaking as compared to what occurs under existing conditions. Therefore, implementation of the Project as it relates to the excess fill dirt sites would not expose people or structures or any adverse effects from strong seismic ground shaking. The end-conditions of the excess fill dirt sites would be inward-facing slopes stabilized with a hydroseeded native plant seed mix. The remainder of this analysis will address the potential for the development of industrial buildings on the Project Site to result in adverse effects related to seismic ground shaking.

The Project Site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not substantially different than the risk to other properties throughout the southern California area. The City of Chino will apply a mandatory condition of approval on the Project that will require all buildings on the Project Site to be constructed in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 (Part 2), and the City of Chino Building Code. The CBSC and City of Chino Building Code provide standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and have been specifically tailored for California earthquake conditions. In addition, the CBSC (Chapter 18) and the City of Chino Municipal Code (§ 19.08.010) require development project sites to be analyzed in geologic engineering reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, and selection of appropriate structural systems. The Project Applicant retained a professional geotechnical firm, Koury, to prepare a geologic engineering report for the Project Site which is included as *Technical Appendix F1* to this EIR. This geologic engineering report complies with the requirements of Chapter 18 of the CBSC and § 19.08.010 of the Chino Municipal Code and provides recommendations for site grading practices, use of fill materials, and foundation design to maximize the stability and structural integrity of on-site structures

in the event of an earthquake (Koury, 2019a, pp. 13-25). In conformance with the Municipal Code, the City will condition the Project to comply with the site-specific ground preparation and construction recommendations contained in *Technical Appendix F1*. With mandatory compliance with these standard and site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures on the Project Site to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

C. Seismic-Related Ground Failure

According to available mapping data, neither the Project Site nor any of the excess fill dirt sites are expected to be subjected to a significant risk associated with seismic-related ground failure, including liquefaction (Koury, 2019a, p. 12). Regardless, as noted above, the City of Chino will require that the Project be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Chino Building Code. Furthermore, the City of Chino will conduct a thorough administrative review of all future grading permits, including a review all future grading permits for the Project Site and the excess fill dirt sites to ensure that future earthwork activities do not result in any conditions that could subject the Project Site and/or excess fill dirt sites to seismic-related ground failure or expose any of the areas abutting the Project Site and/or excess fill dirt sites to adverse effects from seismic-related ground failure. As such, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction. No impact would occur.

D. Landslides

The Project Site and excess fill dirt sites are relatively flat, as are the surrounding areas. There are no hillsides or steep slopes on the Project Site or in the immediate vicinity of the site and neither the Project Site nor any of the excess fill dirt sites are located within a mapped landslide hazard area. (Google Earth Pro, 2019) (CGS, 2019).

Retaining walls up to 8 feet in height and manufactured slopes with a maximum gradient of 2:1 would be constructed on the Project Site; however, the City of Chino will require that the Project's manufactured slopes be constructed in accordance with the CBSC and City of Chino Building Code and the site-specific design recommendations contained within the geologic engineering report for the Project Site (as required by the City of Chino Municipal Code § 19.08.010). Mandatory compliance with the recommendations contained within the Project Site's geologic engineering report (*Technical Appendix F1*) would ensure that proposed manufactured slopes and retaining walls are engineered and constructed to maximize stability and preclude safety hazards to on- and off-site areas. Furthermore, the City of Chino will conduct a thorough administrative review of the future grading permit for the Project Site pursuant to the City's Municipal Code to ensure that proposed manufactured slopes and retaining walls are constructed in accordance with structural engineering best practices to minimize the risk of failure (and the correlated risk of on- and off-site landslides). Accordingly, implementation of the Project would not expose people or structures on the Project Site to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to properties surrounding the Project Site. Impacts would be less than significant.

Excavation activities that would occur or potentially occur on the five excess fill dirt sites would create inward-facing manufactured slopes at the excess fill dirt sites. Any earthwork and grading activities on the excess fill dirt sites would be required to comply with the CBSC and City of Chino Building Code to ensure that no unsafe slopes that could be subject to failure (and on- or off-site landslide) would be created. Additionally, the City of Chino will conduct a thorough administrative review of the future grading permits for the excess fill dirt sites per the City's Municipal Code to ensure that proposed manufactured slopes are constructed in accordance with structural engineering best practices to minimize the risk of failure and are hydroseeded for stability.

Based on the foregoing information, implementation of the Project would not expose people or structures on or adjacent to any of the excess fill dirt sites to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to properties surrounding the Project Site. Impacts would be less than significant.

Threshold b: Would the Project result in substantial soil erosion or the loss of topsoil?

A. Impact Analysis for Construction Activities

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant or successor in interest will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities, inclusive of grading and excavation activities on the Project Site and the excess fill dirt sites. The NPDES permit is required for all construction activities, such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. The City's Municipal Separate Storm Sewer System (MS4) NPDES Permit requires development projects to prepare and submit to the City for approval a site-specific Storm Water Pollution Prevention Plan (SWPPP) to demonstrate compliance with the NPDES permit requirements. The SWPPP is required to identify a combination of erosion control and sediment control measures (i.e., Best Management Practices) that will reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges during construction. In addition, the Project will be required to comply with SCAQMD Rule 403's requirements related to fugitive dust control, which would reduce the amount of particulate matter in the air and minimize the potential for wind erosion. Lastly, the Project would be required to implement an erosion and dust control plan pursuant to Chino Municipal Code §19.09.030. With mandatory compliance with the requirements noted in the respective SWPPP, as well as applicable regulatory requirements, the potential for water and/or wind erosion from Project construction activities would be less than significant.

B. Impact Analysis for Operational Activities

Upon the completion of proposed grading activities, the excess fill dirt sites would be re-vegetated (via hydroseeding) with a native plant seed mix to stabilize the respective sites and preclude substantial erosion. Potential long-term erosion impacts at the excess fill dirt sites would be less than significant.

Upon Project build-out, the Project Site would be covered by buildings and landscaping and impervious surfaces. Stormwater runoff from the Project Site would be captured, treated to reduce waterborne pollutants (including sediment), and conveyed off-site via an on-site storm drain system. The City's MS4 NPDES Permit requires development projects to prepare a Water Quality Management Plan (WQMP) and submit the

WQMP to the City for approval. The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term erosion protection. Compliance with a WQMP will be required as a condition of approval for the Project, as would the long-term maintenance of erosion and sediment control features. The preliminary WQMP for the Project Site is provided as *Technical Appendix K* to this EIR. Because the Project Applicant or successor in interest will be required to utilize erosion and sediment control measures on the Project Site to preclude substantial, long-term soil erosion and loss of topsoil, implementation of the Project would result in less-than-significant impacts related to soil erosion at the Project Site.

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

Neither the Project Site nor any of the excess fill dirt sites are located within mapped liquefaction, landslide or other soil hazard zones (Koury, 2019a, p. 12; CGS, 2019). Notwithstanding, as noted earlier in this Subsection, the City of Chino will require that the Project be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the CBSC and City of Chino Building Code. Furthermore, the City of Chino will conduct a thorough administrative review of all future grading permits, including a review all future grading permits for the Project Site and the excess fill dirt sites per the City's Municipal Code to ensure that future earthwork activities do not result in any conditions that could expose areas adjacent to the Project Site and/or excess fill dirt sites to hazards related to unstable soils. As such, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with unstable soils and less-than-significant impacts would occur.

Threshold d: ***Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

According to laboratory analysis performed by Koury, the Project Site and the excess fill dirt sites contain soils classified as "expansive" (Koury, 2019a, p. 31; Koury, 2017a, p. 8; Koury, 2017b, p. 3; Koury, 2018a, p. 3; Koury, 2018b, p. 3; Koury, 2019b, p. 3). The geologic engineering report for the Project Site includes detailed recommendations for the conditioning of on-site soils to minimize potential adverse effects related to soil expansion (Koury, 2019a, pp. 14-18). The geologic engineering report for the Project Site also includes detailed criteria to guide the selection of soils to be brought to the Project Site from the excess fill dirt sites and for the conditioning of the imported soil (Koury, 2019a, pp. 18-19). The Project will be required to comply with the recommendations contained within the geologic engineering report in accordance with City of Chino Municipal Code § 19.08.010. Mandatory compliance with the recommendations contained within the Project Site's geologic engineering report would ensure that expansive soils are adequately attenuated to preclude substantial direct or indirect risks to life or property. Thus, implementation of the Project would result in less-than-significant hazards related to expansive soils.

[Note: Threshold (d) is based on Appendix G of the CEQA Guidelines and references Table 18-1-B of the 1994 Uniform Building Code (UBC) which was superseded by the 2013 CBSC and the subsequent 2016 and 2019 CBSC updates. The

2019 CBSC references ASTM D-4829, a standard procedure for testing and evaluating the expansion index (or expansion potential) of soils established by ASTM International, which was formerly known as the American Society for Testing and Materials (ASTM). ASTM D-4829 was used as the standard for evaluating the Project's potential impact related to expansive soils in the above analysis.]

Threshold e: Would the Project 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?

The proposed buildings on the Project Site would connect to the existing municipal wastewater conveyance and treatment network; no septic systems or alternative wastewater treatment systems would be constructed on the Project Site. In addition, implementation of the Project would not result in the construction of any permanent structures or facilities, including septic systems and/or alternative wastewater treatment systems, on the excess fill dirt sites. No impact would occur.

Threshold f: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Neither the Project Site nor any of the excess fill dirt sites contain any unique geologic features or known unique paleontological resources. However, the Project Site and each of the excess fill dirt sites are mapped to be underlain by alluvium soils that have a high paleontological sensitivity for fossils of large, terrestrial Ice Age vertebrates (BFSA, 2019b, pp. 2-3). In the event that Project grading and excavation activities encroach into previously undisturbed Pleistocene-age alluvial deposits, the Project could result in impacts to important paleontological resources that may exist below the ground surface *if* they are unearthed *and* not properly treated. Therefore, the Project's potential to directly or indirectly destroy a unique paleontological resource buried beneath the ground surface is determined to be a significant impact and mitigation is required.

4.6.5 Cumulative Impact Analysis

As noted in the foregoing analysis, all potential Project-related direct and indirect impacts related to geology and soils would be precluded through mandatory conformance with the California Buildings Standards Code, City of Chino Municipal Code, other standard regulatory requirements, and the site-specific geotechnical recommendations contained within *Technical Appendix F1*, which will be incorporated into the Project's construction drawings/documents.

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds "a", "c", "d" and "e" are unique to the Project Site and the excess fill dirt sites, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a development project, are specific to conditions on the subject properties, and are not influenced by or additive with the geologic and/or soils hazards that may occur on other, off-site properties. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold "b," regulatory requirements mandate that the Project incorporate design measures during construction and operation to ensure that substantial erosion impacts do not occur. Other development projects in the vicinity of the Project Site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar mandatory regulatory requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards would be less than significant.

No paleontological resources have been identified on the Project Site; however, the Project would disturb alluvium soils with a high potential to contain fossils. Ancient alluvium soils are relatively widespread in the City of Chino and elsewhere in the Inland Empire; therefore, other development projects within this geographic region would have a similar potential to uncover unique paleontological resources. Therefore, the potential for the Project to impact subsurface paleontological resources is a cumulatively-considerable impact for which mitigation is required.

4.6.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State ordinances and building codes including, but not limited to, the CBSC (Chapter 18) and City of Chino Municipal Code § 19.08.010, would ensure that the Project minimizes potential hazards related to seismic ground shaking.

Threshold b: Less-than-Significant Impact. The Project would not result in substantial soil erosion or loss of topsoil. The issuance of a National Pollutant Discharge Elimination System (NPDES) permit will be required for construction activities and construction activities will be required to adhere to a Storm Water Pollution Prevention Plan (SWPPP), SCAQMD Rule 403, and Chino Municipal Code § 19.09.03 to minimize construction-related water and wind erosion. The Project Applicant or successors in interest also will be required to implement a Water Quality Management Plan (WQMP) during the lifetime of the Project's operation, which would preclude substantial erosion impacts in the long-term.

Threshold c: Less-than-Significant Impact. The Project Site and the excess fill dirt sites are not located within mapped liquefaction, landslide, or other soil hazard zones. Furthermore, the City of Chino will require that the Project be constructed in conformance with the Project Site's geologic engineering report to preclude potential hazards related to unstable soils.

Threshold d: Less-than-Significant Impact. The Project Site and the excess fill dirt sites contain expansive soils; however, mandatory compliance with the recommendations contained within the Project Site's geologic engineering report will ensure that expansive soils are adequately attenuated to preclude substantial direct or indirect risks to life or property.

Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project Site or any of the proposed excess fill dirt sites. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.

Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project Site and the excess fill dirt sites contain alluvium soils with a high sensitivity for paleontological resources. Accordingly, Project construction activities have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface if the resources are not properly identified and treated.

4.6.7 MITIGATION

The following mitigation measures (MMs) would reduce the potential for Project construction to impact subsurface paleontological resources that may be present beneath the Project Site and/or excess fill dirt sites and have the potential to be discovered during Project-related ground-disturbing construction activities.

MM 4.6-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that a qualified paleontologist has been retained to conduct monitoring of grading and excavation operations in areas identified in MM 4.6-2.

MM 4.6-2 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments. Full time monitoring shall occur for earthwork and excavations at depths greater than four (4) feet below the ground surface. Periodic monitoring (one to two visits per week) shall be performed for earthwork and excavations between two (2) and four (4) feet below the ground surface. No monitoring is required for earthwork and excavations at the ground surface and up to two (2) feet below the ground surface. The paleontological monitor shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that may contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow the removal of abundant and large specimens in a timely manner. In such a situation, the monitor may establish a 50-foot radius surrounding the area of the find, and, construction activities in areas outside this 50-foot radius can proceed. The significance of the discovered resources shall be determined by the paleontologist. If the resource is significant, Mitigation Measure MM 4.6-3 shall apply. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

MM 4.6-3 If a significant paleontological resource is discovered on the Project Site or any of the excess fill dirt sites, discovered fossils or samples of such fossils shall be collected and identified by a qualified paleontologist. Significant specimens recovered shall be properly recorded, treated, and donated to the San Bernardino County Museum, Division of Geological Sciences, or other repository with permanent retrievable paleontological storage. A qualified

paleontologist shall prepare a final report that itemizes any fossils recovered, with maps to accurately record the original location of recovered fossils, and contains evidence that the resources were curated by an established museum repository. The report shall be submitted to the City of Chino prior to issuance of the first certificate of occupancy.

4.6.8 Significance of Impacts After Mitigation

Threshold f: Less-than-Significant Impact with Mitigation Incorporated. MM 4.6-1 through MM 4.6-3 would ensure the proper identification and proper subsequent treatment of any paleontological resources that may be encountered during Project-related ground-disturbing activities. Therefore, with implementation of MM 4.6-1 through MM 4.6-3, the Project's potential impact to paleontological resources would be reduced to a less-than-significant level.

4.7 GREENHOUSE GAS EMISSIONS

The analysis provided in this Subsection evaluates the Project's potential to generate greenhouse gas (GHG) emissions that could contribute substantially to Global Climate Change (GCC) and its associated environmental effects. The analysis is primarily based on two technical studies prepared by Urban Crossroads, Inc.: 1) "Majestic Chino Heritage Greenhouse Gas Analysis," dated August 13, 2019 (Urban Crossroads, 2019f); and 2) "Majestic Chino Heritage Supplemental AQ, GHG, HRA, & EA Based on EMFAC2017 Emission Rates," dated November 6, 2019 (Urban Crossroads, 2019d). These reports are provided as *Technical Appendices H* and *B4* to this EIR, respectively. Greenhouse gas (GHG) calculations reported in *Technical Appendix H* apply the California Air Resources Board's (CARB's) Emission FACtors (EMFAC) 2014 emission rates. CARB also published EMFAC 2017 emission rates, which reflect CARB's current understanding of how vehicles travel, how much they pollute, and how emission reductions are expected to occur in the future based on State and federal requirements. To take EMFAC 2017 into account, *Technical Appendix B4* was prepared. Because it is currently unknown with certainty whether federal regulations related to vehicular air quality emissions under the Trump Administration and incorporated into EMFAC 2017 will be delayed, reduced, or repealed, for full disclosure and purposes of analysis within this Subsection, the modeling results from both EMFAC2014 and EMFAC2017 are reported. Refer to Section 7.0, *References*, for a complete list of references.

4.7.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

GCC is defined as the change in average meteorological conditions on Earth with respect to temperature, precipitation, and storms. GCC is a controversial environmental issue in the United States and there is much debate within the scientific community about the degree to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred over the course of thousands or millions of years, and that these historical changes to Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in planet Earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. (Urban Crossroads, 2019f, p. 9)

An individual land development project is not capable of generating the magnitude of GHG emissions necessary to cause a discernible effect on global climate. However, individual development projects may contribute to GCC by generating GHGs that combine with other regional and global sources of GHGs. (Urban Crossroads, 2019f, p. 9)

B. Greenhouse Gases

Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC resulting from land development projects. Although other substances, such as fluorinated gases, also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate the emissions of these gases. (Urban Crossroads, 2019f, pp. 9-10)

Individual GHGs have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is used as the base reference unit for GWP and, therefore, has a GWP of 1. As shown in the Table 4.7-1, *GWP and Atmospheric Lifetime of Select GHGs*, GWP ranges from 1 for CO_2 up to 23,900 for Sulfur Hexafluoride (SF_6). The atmospheric lifetime and GWP of common GHGs are summarized in Table 4.7-1. (Urban Crossroads, 2019f, pp. 15-16)

Table 4.7-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)	
		Second Assessment Report (SAR)	5th Assessment Report (AR5)
Carbon Dioxide	See Footnote 1	1	1
Methane	12.4	21	28
Nitrous Oxide	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
Sulfur Hexafluoride (SF_6)	3,200	23,900	23,500

1. As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.

Source: (Urban Crossroads, 2019f, Table 2-2)

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.3 of *Technical Appendix H* and the reference sources cited therein.

- **Water Vapor (H_2O)** is the most abundant and variable GHG in the atmosphere. Changes in the concentration of water vapor in the atmosphere are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity rises (in essence, the air is able to 'hold" more water when it is warmer), leading to more water vapor in the atmosphere. The higher concentration of water vapor in the atmosphere is then able to absorb more indirect thermal energy radiated from the Earth, further warming the atmosphere and causing the evaporation cycle to perpetuate. 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 hold 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 able to reflect incoming solar radiation and thereby allow less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, certain pollutants can dissolve in water vapor and the water vapor can then act as a pollutant-carrying agent. (Urban Crossroads, 2019f, Table 2-1)

- **Carbon Dioxide (CO_2)** is an odorless and colorless GHG that is emitted from natural and man-made sources. Natural CO_2 sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Man-made CO_2 sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, human activities that produce CO_2 have increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations in the atmosphere were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO_2 in high concentrations can cause adverse human health effects, but outdoor (atmospheric) levels are not high enough to be detrimental to human health. (Urban Crossroads, 2019f, Table 2-1)

- **Methane (CH_4)** absorbs thermal radiation extremely effectively (i.e., retains heat). Over the last 50 years, human activities such as rice cultivation, cattle ranching, natural gas combustion, and coal mining have increased the concentration of methane in the atmosphere. Other man-made sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from atmospheric exposure to methane; however, methane is an asphyxiant that may displace oxygen in enclosed spaces. (Urban Crossroads, 2019f, Table 2-1)

- **Nitrous Oxide (N_2O)** concentrations began to rise in the atmosphere at the beginning of the industrial revolution. N_2O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. N_2O is produced by microbial processes in soil and water, including reactions that occur in nitrogen-containing fertilizer. 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. N_2O also is used as an aerosol spray propellant, as a preservative in potato chip bags, and in rocket engines and in race cars. Also, known as laughing gas, N_2O is a colorless GHG that can cause dizziness, euphoria, and hallucinations. In small doses, it is considered harmless; however, heavy and extended use can cause brain damage. (Urban Crossroads, 2019f, Table 2-1)

- **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs were 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 and has been extremely successful, so much so that levels of CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2019f, Table 2-1)

- **Hydrofluorocarbons (HFCs)** are synthetic, man-made chemicals that are used as a substitute for CFCs and have one of the highest global warming potential ratings. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). No human health effects are known to result from exposure to HFCs, which are man-made and used for applications such as automobile air conditioners and refrigerants. (Urban Crossroads, 2019f, Table 2-1)

- **Perfluorocarbons (PFCs)** are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. 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). No human health effects are known to result from exposure to PFCs. (Urban Crossroads, 2019f, Table 2-1)

- **Sulfur Hexafluoride (SF_6)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas. 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. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2019f, Table 2-1)

C. Greenhouse Gas Emissions Inventory

1. Global and National

Worldwide, man-made GHG emissions are tracked by the Intergovernmental Panel on Climate Change. Man-made GHG emissions data is available through 2017. For the year 2017, total GHG emissions were approximately 29,216,501 gigagrams (Gg) of carbon dioxide equivalent (CO_2e), and the United States was the world's second-largest emitter of GHGs. (Urban Crossroads, 2019f, pp. 16-17)

2. State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based on the most recent GHG inventory data compiled in 2018, California emitted approximately 429.4 million metric tons (MMT) CO_2e. California is the second-largest emitter of GHGs in the United States. (Urban Crossroads, 2019f, p. 17)

3. Project Site

The Project Site is vacant, but was previously used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. Dairy operations are inherently a substantial source of GHG emissions, particularly associated with the decomposition of manure. However, dairy operations on the Project Site ceased between 2013 and 2014. All structures associated with the former dairy operations have since been demolished but several foundation pads still exist from former structures. The northeast corner of the site also contains several water detention basins and a pond containing vegetation and trash. The Project Site is routinely maintained for weed abatement. Sources of GHG emissions on-site under existing conditions include the operation of maintenance equipment associated with periodic weed abatement activities. Although the Project Site produced GHG emissions associated with the former commercial dairy operation and produces some GHG emissions under existing conditions associated with periodic site maintenance, for purposes of analysis herein (and in order to present a "worst-case" scenario) the Project's GHG analysis assumes all GHG emissions that would be generated by the Project are "new" emissions and no deduction is taken for the elimination of any former commercial dairy uses or existing GHG emissions that currently occur as part of Project Site maintenance activities.

D. Potential Effects of Climate Change in California

In February 2006, the California Climate Change Center (CCCC) published a report titled "Scenarios of Climate Change in California: An Overview" (the "Climate Scenarios report") that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.4°F); medium warming range (5.5-7.8°F); and higher warming range (8.0-10.4°F). (CCCC, 2006, p. 7) In addition, the California Natural Resources Agency adopted a "California Climate Adaptation Strategy" in 2009. This report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to the Governor's Executive Order (EO) S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts. (CNRA, 2009, p. 4)

Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaption Strategy reports, Table 4.7-2, *Summary of Projected Global Warming Impact, 2070-2099*, presents potential impacts of global warming within California.

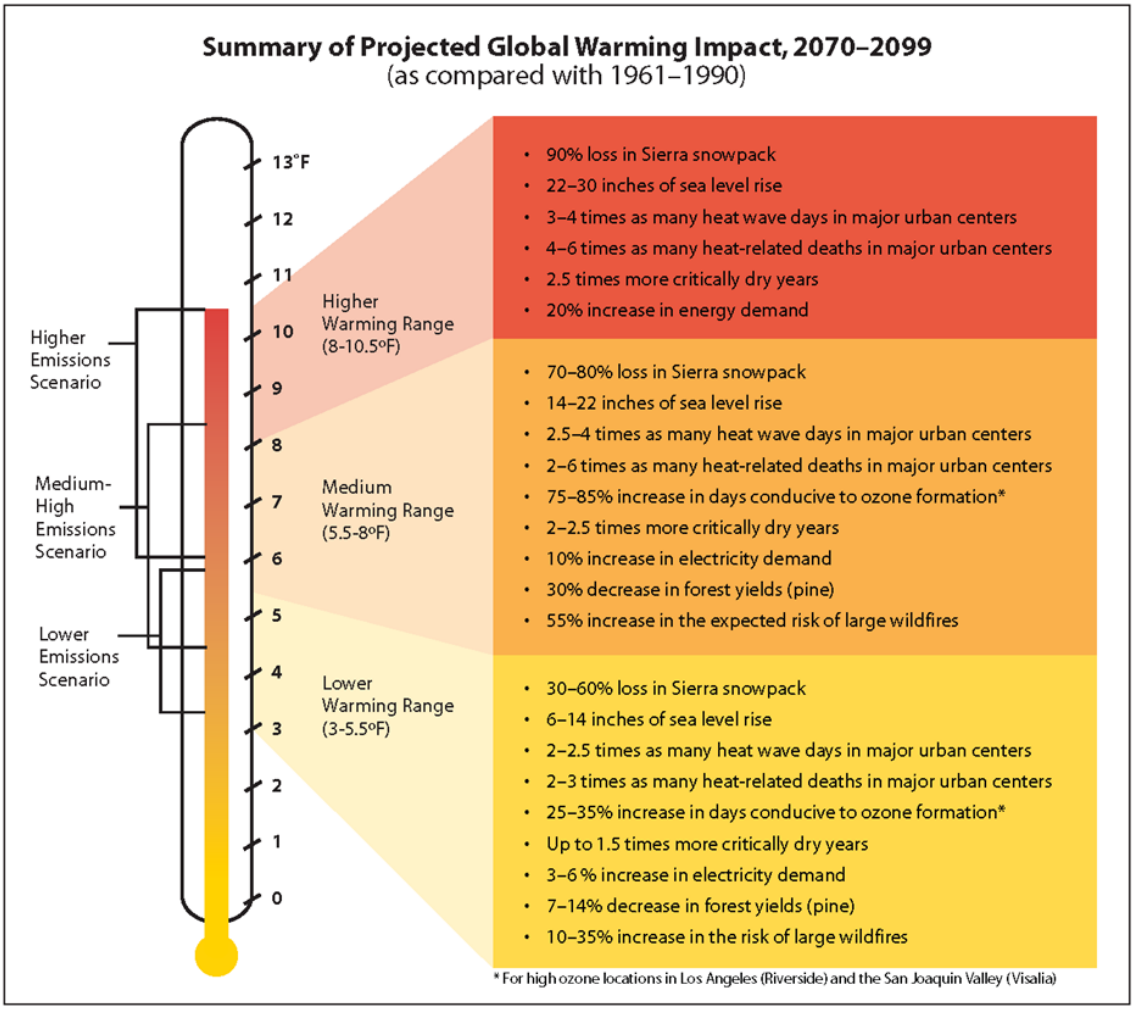
The potential effects of climate change in California are summarized in more detail below and include, but are not limited to, the following:

- **Human Health Effects.** Climate change can affect the health of Californians by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease. (CCCC, 2006, p. 26)

- **Water Resource/Supply Effects.** Although most climate model simulations predict relatively moderate changes in precipitation over the 21st century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds, including the Sierra Nevada. Warmer conditions during the last few decades across the western United States have already produced a shift toward more precipitation falling as rain instead of snow, and snowpacks over the region have been melting earlier in the spring. Delays in snow accumulation and earlier snowmelt can have cascading effects on water supplies, natural ecosystems, and winter recreation. (CCCC, 2006, p. 14)

- **Agriculture Effects.** Agriculture, along with forestry, is the sector of the California economy that is most likely to be affected by a change in climate. California agriculture is a $68 billion industry. California is the largest agricultural producer in the nation and accounts for 13% of all U.S. agricultural sales, including half of the nation's total fruits and vegetables. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already affecting the agriculture industry. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade,

Table 4.7-2 Summary of Projected Global Warming Impact, 2070-2099



Source: (Urban Crossroads, 2019f, Exhibit 2-A)

and warming temperatures resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO_2 concentrations, and indirectly through changes in water availability and pests. (CCCC, 2006, p. 19)

- **Forest and Landscape Effects.** Climate changes and increased CO_2 concentrations are expected to alter the extent and character of forests and other ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease – depending on species and region. In California, these ecological changes could have measurable implications for both market (e.g., timber industry, fire suppression and damages costs, public health) and nonmarket (e.g., ecosystem services) values. (CCCC, 2006, p. 22)

- **Sea Level Effects.** Coastal observations and global model projections indicate that California's open coast and estuaries will experience rising sea levels during the next century. Sea level rise already has affected much of the coast in southern California, Central California, and the San Francisco Bay and estuary. These historical trends, quantified from a small set of California tide gages, have approached 0.08 inches per year (in/yr), which are rates very similar to those estimated for global mean sea level. So far, there is little evidence that the rate of rise has accelerated, and indeed the rate of rise at California tide gages has actually flattened since about 1980. However, projections indicate that substantial sea level rise, even faster than the historical rates, could occur during the next century. Sea level rise projections range from 5.1–24.4 inches (in.) higher than the 2000 sea level for simulations under the lower emissions scenario, from 7.1–29.9 in. for the medium-high emission scenario, and from 8.5–35.2 in. for the higher emissions scenario. (CCCC, 2006, p. 10)

4.7.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to GHG emissions.

A. International Plans, Policies, and Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." (UNFCCC, n.d.)

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012. (UNFCCC, n.d.)

In Doha, Qatar, on December 8, 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period. (UNFCCC, n.d.)

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol. (UNFCCC, n.d.)

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. (UNFCCC, n.d.)

2. The Paris Agreement

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. (UNFCCC, n.d.)

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. (UNFCCC, n.d.)

The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. (UNFCCC, n.d.)

In 2018, Parties will take stock of the collective efforts in relation to progress towards the goal set in the Paris Agreement and to inform the preparation of NDCs. There will also be a global stock-taking every five years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by Parties. (UNFCCC, n.d.)

The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession with the Depositary. (UNFCCC, n.d.)

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement is November 4, 2020.

B. Federal Plans, Policies, and Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

C. State Plans, Policies, and Regulations

1. Title 24 Building Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2019 Building Energy Efficiency Standards) will become effective on January 1, 2020. The 2019 Building Energy Efficiency Standards are 53 percent more efficient than the previous (2016) Building Energy Efficiency Standards for residential construction after implementation of solar photovoltaic systems, and 30 percent more efficient than the previous Standards for non-residential construction due to lighting upgrade requirements. This analysis assumes compliance with the 2019 Building Energy Efficiency Standards because the Project would commence construction in 2021.

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CalGreen Code). The purpose of the CalGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CalGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California

Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CalGreen Code.

2. California Assembly Bill No. 1493 (AB 1493)

AB 1493 required CARB to adopt the nation's first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, 2017)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles On June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, 2017)

CARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, 2017)

The regulations had been threatened by automaker lawsuits and were stalled by the EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, 2017)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, 2017)

3. Executive Order S-3-05

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050. (CCC, n.d.)

4. California Assembly Bill 32 – Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Climate Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. Pursuant to AB 32, the CARB must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste. (CARB, 2019d) AB 32 specifically requires that CARB shall do the following:

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures. (CARB, 2019d)

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs). Accordingly, 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 $MMTCO_2e$ for 2000 and without emissions reduction measures 2010 emissions were projected to be 532 $MMTCO_2e$. "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 $MMTCO_2e$. (CARB, 2007)

AB 32 requires CARB to develop a Scoping Plan which lays out California's strategy for meeting the goals. The Scoping Plan must be updated every five years. In December 2008, the Board approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.7-3, *Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local

governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 $MMTCO_2e$ (or approximately 1.2 percent of the GHG reduction target). (CARB, 2019d)

Table 4.7-3 Scoping Plan GHG Reduction Measures Towards 2020 Target

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e
[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 metric tons of carbon dioxide equivalent ($MTCO_2e$). As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 $MTCO_2e$, or approximately 16 percent (down from 28.5 percent), from the BAU condition.

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 $MTCO_2e$ 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 $MTCO_2e$. Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 $MTCO_2e$ (down from 509 $MTCO_2e$), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (CARB, 2019d)

In January 2017, CARB released the draft Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update would reflect the 2030 target of a 40 percent reduction below 1990 levels, set by Senate Bill (SB) 32. Key GHG emissions reductions programs that the draft Second Update proposes to build upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes. It should be noted the proposed Second Update was under consideration by CARB and was not adopted at the time the NOP for this EIR was published.

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand. (CEC, 2019)

6. Executive Order S-01-07

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO2e grams per unit of fuel energy sold. (CCC, n.d.)

7. Senate Bill 1078

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CCC, n.d.)

8. Senate Bill 107

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CCC, n.d.)

9. Executive Order S-14-08

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. A substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects was essential in meeting this new goal. Executive Order S-14-08 accelerated such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities.

10. Senate Bill 97

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. Those CEQA Guidelines amendments clarified several points, including the following: (CA Legislative Info, n.d.)

- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)

- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. (CA Legislative Info, n.d.)

Of note, the guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance-based standards. Pursuant to CEQA Guidelines § 15064.4(a), "A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; or (2) Rely on a qualitative analysis or performance based standards." (CA Legislative Info, n.d.)

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines § 15130(f)).

Section 15064.4(b) of the guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

11. Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB will periodically review and update the targets, as needed. (CARB, 2019e)

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets. The APS is not a part of the RTP. (CARB, 2019e)

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the targets (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.). (CARB, 2019e)

12. Executive Order B-30-15 & Senate Bill 32

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). (CCC, n.d.)

On September 8, 2016, former Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the State to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050.

D. Local Plans, Policies, and Regulations

1. City of Chino Climate Action Plan

The City adopted the Chino Climate Action Plan (CAP) on November 19, 2013; and the CAP went into full effect as of January 2, 2014. The CAP is the City of Chino's long-range plan to reduce local GHG emissions that contribute to climate change. The components of the Chino CAP that are applicable to private development are implemented through City of Chino Municipal Code Chapter 15.45. As part of the CAP, the City of Chino selected a goal to reduce the City's GHG emissions to a level 15 percent below its 2008 GHG emissions levels

by 2020, which the City determined would achieve the GHG emissions reduction mandates of AB 32 and also would be consistent with the recommendations contained in the CARB AB 32 Scoping Plan to meet the State's GHG reduction goals (Chino, 2013, p. 13). The CAP consists of regulations and requirements to achieve the 15 percent GHG reduction goal of the CAP. The CAP also is intended to support tiering and streamlining of future projects within the City of Chino pursuant to CEQA Guidelines §§ 15152 and 15183.5. Individual development projects such as the proposed Project are required to demonstrate consistency with applicable measures from the CAP. The City concluded that City-wide GHG emissions consistent with the CAP would result in a less-than-significant environmental impact (Chino, 2013, pp. 5, 13).

A majority of the local GHG reduction policies specified in the adopted CAP require compliance with existing City ordinances and/or provide guidance to City staff and decision-makers to ensure that GHGs are reduced at a policy level; as such, a majority of the GHG reduction policies specified in the CAP are not directly applicable to private development projects (Chino, 2013, pp. 21-54). However, the CAP does establish performance standards for new development projects to reduce GHG emissions through implementation of one or a combination of the following three (3) options: Option 1) exceed by 3-percent the mandatory California Energy Code (Title 24, Part 6) standards in effect at the time of development application submittal; Option 2) achieve an equivalent reduction through voluntary measures in the California Green Building Standards Code (Title 24, Part 11, CalGreen) in effect at the time of development application submittal; or Option 3) provide other equivalent GHG reductions through design measures that would result in GHG emissions reductions of 0.04 metric tons (MT) of carbon dioxide equivalent (CO_2e) per residential dwelling unit per year and/or 0.11 $MTCO_2e$ per thousand square feet (TSF) of commercial/industrial use per year (pursuant to City of Chino Municipal Code § 15.45.070).

A lawsuit challenging the validity of the City's CAP was dismissed by the California Superior Court and the CAP and its EIR (SCH No. 2013071037) were determined by the Court to be in compliance with California law. Therefore, for purposes of this EIR, the analysis considers the proposed Project's consistency with the CAP, which the City of Chino implements with full force and effect.

4.7.3 Methodology for Estimating Greenhouse Gas Emissions

The California Emission Estimator Model (CalEEMod), developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SCAQMD and air pollution control districts across the State, was used to quantify GHG emissions from Project-related construction and operational activities. CalEEMod is the software analysis tool recommended by SCAQMD for the quantification of GHG emissions associated with the construction and operation of land development projects because it is the only software model maintained by CAPCOA and incorporates locally-approved emission factors and methodologies for estimating pollutant emissions. The most recent version of CalEEMod available at the time the NOP for this EIR was published was used in the Project analysis (v2016.3.2, released on October 17, 2017). (Urban Crossroads, 2019f, p. 43) Inputs and outputs from the model runs for both Project-related construction and operational activities are provided in Appendices 3.1 through 3.3 of *Technical Appendix H* and Attachments A and B of *Technical Appendix B4*.

Although CalEEMod is a comprehensive analysis tool, CalEEMod is limited to quantifying GHG emissions that are known as of the date of release of the model, and there may be sources of GHG emissions that are not

known (or not quantifiable) at this time but may be measurable by the time the Project is constructed and operational. Furthermore, CalEEMod relies on data published by the CARB and other data sources to be representative of local/regional averages which may not be completely representative of the Project's construction and/or operational characteristics (and may slightly underestimate or overestimate the Project's emissions). Specifically, GHGs generated by the Project were calculated by CalEEMod using two versions of CARB's Emission Factors Model (EMFAC) – EMFAC2014 and EMFAC2017. This is because while EMFAC2017 is the currently adopted model within the SCAB and accounts for current and future implementation of State and federal regulations, it is currently unclear whether federal regulations related to air quality emissions assumed by EMFAC2017 will be delayed, reduced, or repealed by the Trump Administration. As such, for conservative measures, this analysis provides two separate calculations of the Project's GHG emissions – one with EMFAC2014 and one with EMFAC2017. Lastly, not all the CalEEMod calculation data files are known or publicly available for review, although it is reasonable to assume that the data contained in CalEEMod is accurate and grounded in science because CalEEMod is developed by CAPCOA in collaboration with 35 local air pollution control districts. (Urban Crossroads, 2019f, pp. 45-46)

A life-cycle analysis (LCA), which assesses economy-wide GHG emissions from construction (i.e., the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) and operation, was not conducted for the Project due to the lack of scientific consensus on LCA methodology. A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date the NOP for this EIR was published. Additionally, SCAQMD recommends analyzing a project's direct and indirect GHG emissions generated within California in-lieu of a LCA because the life-cycle effects from a project could occur outside of California and these effects might not be well understood or well documented and would be infeasible to mitigate. (Urban Crossroads, 2019f, p. 44)

A. Methodology for Estimating Project-Related Construction Emissions

The Project's construction-related GHG emissions were calculated using the same methodology, construction schedule information, and equipment fleet information that were used to calculate construction-related criteria air pollutant emissions, as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2019f, p. 43). Refer to EIR Subsection 4.2 and *Technical Appendix H* for a detailed description of the methodology used to calculate the Project's construction GHG emissions.

In accordance with the SCAQMD recommendations, Project-related construction GHG emissions were quantified, amortized over a 30-year period, and then added to the sum of the Project annual operational GHG emissions (Urban Crossroads, 2019f, p. 44).

B. Methodology for Estimating Project-Related Operational Emissions

The Project's operational GHG emissions were calculated using the same methodology that was used to calculate operational criteria air pollutant emissions, as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2019f, p. 43). Refer to EIR Subsection 4.2 and *Technical Appendix H* for a detailed description of the methodology used to calculate the Project's operational GHG emissions.

4.7.4 Basis for Determining Significance

The proposed Project would result in a significant impact to greenhouse gas emissions if the Project or any Project-related component would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address a development project's potential to result in significant impacts due to GHG emissions. Neither the CEQA Statute nor the CEQA Guidelines prescribe specific methodologies and significance criteria for determining the significance of GHG emissions impacts. The CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate thresholds consistent with the manner in which other impact categories are handled in CEQA. CEQA case law has upheld local agencies' discretion to determine the significance of GHG emissions impacts.

As part of the November, 30, 2015, decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* ("Newhall Ranch"), the California Supreme Court outlined four potential pathways that CEQA compliance documents could use to determine if GHG emissions from a specific project would be significant under Threshold "a":

- Substantiation of Project Reductions from "Business as Usual" (BAU). A lead agency may use a BAU comparison based on the CARB Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the "data behind the Scoping Plan's business-as-usual model" to determine the necessary project level reductions from new land use development at the proposed location;
- Compliance with Regulatory Programs or Performance-based Standards. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities";
- Compliance with GHG Reduction Plans or Climate Action Plans (CAPs). A lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis; or
- Compliance with Local Air District Thresholds. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts.

Based on the foregoing guidance from the California Supreme Court, GHG emissions that are consistent with the City of Chino's CAP would result in a less-than-significant impact under Threshold "a." The City of Chino's CAP is a geographically-specific GHG emissions reduction plan that was adopted by the City for purposes of reducing City-wide GHG emissions in a manner consistent with AB 32 and applicable State

legislation. Further, the validity of the City's CAP was challenged and the challenge was dismissed by the California Superior Court. As such, the Court upheld the validity of the CAP and the City of Chino enforces the CAP with full force and effect. For purposes of evaluation under CEQA, the City of Chino determined that GHG emissions from a private development project found to be consistent with the CAP would result in a less-than-significant impact to the environment pursuant to Threshold "a."

4.7.5 Impact Analysis

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

The City determined that GHG emissions consistent with the City's CAP would achieve the GHG emissions reduction mandate of AB 32 and would result in a less-than-significant impact to the environment (Chino, 2013, pp. 5, 13). The City's CAP is codified as Chapter 15.45 of the Chino Municipal Code and is applicable to all new development projects in the City. Conditions of approval would be imposed on the Project requiring compliance with the CAP, and the City would review future Project-related development actions, including grading and building permit applications, to assure compliance with the Project's conditions of approval. With mandatory compliance with applicable measures of the City of Chino CAP, the Project would not generate GHG emissions that have a substantial effect on the environment. Impacts would be less than significant.

For informational purposes, annual GHG emissions associated with development of the Project – in consideration of the Project's compliance with the CAP, specifically Section 15.45.070.1 of the Chino Municipal Code – are summarized in Table 4.7-4, *Project Annual GHG Emissions (EMFAC2014)* and Table 4.7-5, *Project Annual GHG Emissions (EMFAC2017)*.

Table 4.7-4 Project Annual GHG Emissions (EMFAC2014)

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	214.52	0.02	0.00	215.11
Area	0.09	2.40E-04	0.00	0.10
Energy	3,437.43	0.13	0.03	3,450.89
Mobile (Passenger Cars)	6,133.04	0.14	0.00	6,136.60
Mobile (Trucks)	12,262.54	0.55	0.00	12,276.33
On-Site Equipment	406.72	0.13	0.00	410.01
Transport Refrigeration Units	-	-	-	16.64
Waste	397.40	23.49	0.00	984.55
Water Usage	216.24	1.29	0.03	257.93
Total CO_2E (All Sources)	**23,748.15**			

Source: (Urban Crossroads, 2019f, Table 3-1)

Table 4.7-5 Project Annual GHG Emissions (EMFAC2017)

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	214.52	0.02	0.00	215.11
Area Source	0.09	2.40e-04	0.00	0.10
Energy Source	3,437.43	0.13	0.03	3,450.89
Mobile Source (Passenger Cars)	5,758.64	0.15	0.00	5,762.33
Mobile Source (Trucks)	10,199.16	0.38	0.00	10,208.77
On-Site Equipment	406.72	0.13	0.00	410.01
Transport Refrigeration Units	-	-	-	16.64
Waste	397.40	23.49	0.00	984.55
Water Usage	216.24	1.29	0.03	257.93
Total CO_2E (All Sources)	**21,306.31**			

Source: (Urban Crossroads, 2019d, Table 7)

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

The City of Chino's CAP was designed to further GHG reduction efforts at the local level. Because the Project would be conditioned to comply with the provisions of the City's CAP (as summarized under the analysis for Threshold "a"), the Project and its implementing actions would reflect specific local requirements that would substantially lessen GHG emissions.

The Project also would comply with a number of regulations, policies, plans, and policy goals that would further reduce GHG emissions, including Title 24 California Building Standards Code (CBSC), Assembly Bill 32 (AB 32), and Senate Bill 32 (SB 32), which are regulations particularly applicable to the Project.

The Project would provide for the construction and operation of a warehouse building that would include contemporary, energy-efficient/energy-conserving design features and operational procedures. Warehouse land uses are not inherently energy intensive and the total Project energy demands would be comparable to, or less than, other goods movement projects of similar scale and configuration due to the Project's modern construction and requirement to be constructed in accordance with the most recent CBSC (Urban Crossroads, 2019f, pp. 36-38). The CBSC includes the California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings. The California Energy Code was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to improve energy efficiency by allowing incorporating new energy efficiency technologies and methods. The Project would be required to comply with all applicable provisions of the CBSC. As such, the Project's energy demands would be minimized through design features and operational programs that, in aggregate, would ensure that Project

energy efficiencies would comply with – or exceed – incumbent CBSC energy efficiency requirements, thereby minimizing GHG emissions produced from energy consumption.

As previously discussed in subsection 4.7.2C, CARB identified measures in its Scoping Plan that would reduce Statewide GHG emissions and achieve the emissions reductions goals of AB 32. Thus, projects that are consistent with the CARB Scoping Plan would not conflict with AB 32's mandate to reduce State GHG emissions. Table 4.7-6, *CARB Scoping Plan Consistency*, presents the 39 recommended actions identified by CARB in its Scoping Plan. Of the 39 measures identified, those that would be applicable to the Project consist primarily of actions related to energy efficiency, green buildings, recycling and waste, sustainable forests, and water use. A summary of the Project's consistency with the CARB Scoping Plan recommended actions is presented on the following pages and also summarized in Table 4.7-6.

- Energy Efficiency & Green Building Strategy: Actions E-1, E-2, E-3, CR-1, CR-2, and GB-1 target regulatory and building practices to increase energy efficiency. The Project is required by law to comply with the incumbent Title 24 Energy Efficiency standards and would not conflict with these actions. Based on the foregoing, implementation of the Project would not conflict with or preclude implementation of the CARB Scoping Plan energy efficiency or green building strategy actions. (Urban Crossroads, 2019f, pp. 53-54)

- Recycling and Waste: Actions RW-1 through RW-3 involve reducing methane emissions at landfills, increasing waste diversion, and mandating commercial recycling. The Project would be required to recycle a minimum of 50 percent from construction activities and operations per State and County requirements (i.e., AB 939 and AB 75); therefore, the Project and its implementing actions would not conflict with the CARB Scoping Plan recycling and waste actions. (Urban Crossroads, 2019f, pp. 54-55; CalRecycle, 2018a; CA Legislative Information, 1999)

- Sustainable Forests: Action F-1 targets preserving forest sequestration and encouraging the use of forest biomass for sustainable energy generation. The Project would increase carbon sequestration by increasing on-site trees per the Project landscaping plan. Based on the foregoing, the Project and its implementing actions would not conflict or preclude implementation of the CARB Scoping Plan sustainable forest actions. (Urban Crossroads, 2019f, pp. 54-55)

- Water: Actions W-1 through W-6 are applicable to development proposals like the Project; however, because Project implementation would not exceed the audit threshold for these actions, the Project would be considered consistent with Actions W-1 through W-6. The Project would include use of low-flow fixtures and efficient landscaping per State requirements. Based on the foregoing, operation of the Project would not conflict with or preclude implementation of the CARB Scoping Plan water use actions. (Urban Crossroads, 2019f, pp. 54, 56)

Table 4.7-6 CARB Scoping Plan Consistency

Action	Supporting Measures[11]	Consistency
Cap-and-Trade Program	--	Not Applicable. These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not directly affect manufacturing projects.
Light-Duty Vehicle Standards	T-1	Not Applicable. This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with the current CALGREEN requirements.
	E-2	
	CR-1	
	CR-2	
Renewables Portfolio Standard	E-3	Not Applicable. Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	Not Applicable. Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related GHG Targets	T-3	Not Applicable. This is a statewide measure and is not within the purview of this Project.
Vehicle Efficiency Measures	T-4	Not Applicable. Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5	Not Applicable. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are yet to be implemented and will be voluntary, the proposed Project would not interfere with their implementation.
	T-6	
Million Solar Roofs (MSR) Program	E-4	Not Applicable. The MSR program sets a goal for use of solar systems throughout the state as a whole. While these measures are voluntary, the Project would not interfere with implementation of this measure.
Medium- & Heavy-Duty Vehicles	T-7	Not Applicable. This measure is applicable to MD and HD trucks and trailers working from industrial uses and will be subject to aerodynamic and hybridization requirements as established by ARB; no feature of the project would interfere with implementation of these requirements and programs.
	T-8	

Table 4.7-6 CARB Scoping Plan Consistency

Action	Supporting Measures[11]	Consistency
Industrial Emissions	I-1	Not Applicable. These measures are applicable to large industrial facilities (> 500,000 $MTCO_2e/YR$) and other intensive uses such as refineries.
	I-2	
	I-3	
	I-4	
	I-5	
High Speed Rail	T-9	Not Applicable. Supports increased mobility choice.
Green Building Strategy	GB-1	Consistent. The project will include a variety of building, water, and solid waste efficiencies consistent with the current CALGREEN requirements.
High Global Warming Potential Gases	H-1	Not Applicable. The proposed Project are not substantial sources of high GWP emissions and will comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
	H-2	
	H-3	
	H-4	
	H-5	
	H-6	
	H-7	
Recycling and Waste	RW-1	Consistent. The project will be required recycle a minimum of 50 percent from construction activities and retail operations per State and City requirements.
	RW-2	
	RW-3	
Sustainable Forests	F-1	Not Applicable. The project will increase carbon sequestration by increasing on-site trees per the project landscaping plan.
Water	W-1	Consistent. The project will include use of low-flow fixtures and efficient landscaping per State requirements.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	Not Applicable. The project is not an agricultural use.

11. Supporting measures can be found at the following link: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf
Source: (Urban Crossroads, 2019f, Table 3-2)

As demonstrated by the foregoing analysis, the Project would not conflict with or preclude implementation of the CARB Scoping Plan.

In April 2015, former Governor Edmund Brown Jr. signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, former Governor Brown signed the Senate Bill (SB) 32. SB 32 formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets. (Urban Crossroads, 2019f, p. 35)

According to research conducted by the Lawrence Berkeley National Laboratory and supported by the CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the years 2020 and 2030 reduction targets established by AB 32 and SB 32, respectively (Urban Crossroads, 2019f, p. 29). As described above, the Project would not conflict with or obstruct implementation of the CARB Scoping Plan; therefore, the Project would not interfere with the State's ability to achieve the year 2030 GHG-reduction target established by SB 32.

Rendering a significance determination for year 2050 GHG emissions relative to EO B-30-15 would be speculative because EO B-30-15 establishes a goal more than three decades into the future; no agency with GHG subject matter expertise has adopted regulations to achieve these statewide goals at the project-level; and, available analytical models cannot presently quantify all project-related emissions in those future years. Further, due to the technological shifts anticipated and the unknown parameters of the regulatory framework in 2050, available GHG models and the corresponding technical analyses are subject to limitations for purposes of quantitatively estimating the Project's emissions in 2050.

As described on the preceding pages, the Project would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under Executive Order S-3-05, Executive Order B-30-15, or SB 32. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less-than-significant impact.

4.7.6 Cumulative Impact Analysis

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines § 15130[f]). Accordingly, the analysis provided in Subsection 4.7.5 reflects an impact analysis of the cumulative effects related to the Project's GHG emissions. As concluded in Subsection 4.7.5, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Accordingly, the Project would not result in a cumulatively-considerable impact related to GHG emissions.

4.7.7 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would be conditioned to comply with the City of Chino CAP. The City of Chino's CAP is a geographically-specific GHG emissions reduction plan that was adopted by the City for purposes of reducing City-wide GHG emissions in a manner consistent with AB 32 and applicable State legislation. Further, the validity of the City's CAP was challenged and the challenge was dismissed by the California Superior Court. As such, the Court upheld the validity of the CAP. Therefore,

implementation of the Project would not generate substantial GHG emissions – either directly or indirectly – that would have a significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.

4.7.8 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this Subsection is primarily based on seven (7) reports that were prepared for the Project Site and Excess Fill Dirt Site Nos. 1 through 5 by SCS Engineers (hereafter, "SCS"). The first six (6) reports address the potential presence or absence of toxic substances and/or hazardous materials on each respective site under existing conditions. The seventh report evaluates the soils on the Project Site and Excess Fill Dirt Site Nos. 1 through 5 under existing conditions.

- The report titled, "Phase I Environmental Site Assessment 95 Acre Project Site at the SEC of Mountain and Bickmore Avenues (16195, 16311, and 16451 Mountain Avenue, Chino, California 91708," dated November 2018, addresses the Project Site (APNs: 1056-331-01, 1027-381-01 & -02, 1027-231-01, 1056-201-01, 1056-341-01, 1027-371-01, 1027-241-01 & -02). This report is included as *Technical Appendix I1* to this EIR.

- The report titled, "Phase I Environmental Site Assessment Excess Fill Dirt Site #1 – 47.4 Acres Southwest Corner of Pine and Johnson Avenues Chino, California 91708," dated November 2018, addresses Excess Fill Dirt Site No. 1 (APNs: 1056-392-02, -04, -05, -06, -11, and -12). This report is included as *Technical Appendix I2* to this EIR.

- The report titled, "Phase I Environmental Site Assessment Excess Fill Dirt Site #2 – 40.8 Acres Southeast Corner of Pine and Johnson Avenues Chino, California 91708," dated November 2018, addresses Excess Fill Dirt Site No. 2 (APNs: 1057-191-01 and -02). This report is included as *Technical Appendix I3* to this EIR.

- The report titled, "Phase I Environmental Site Assessment Excess Fill Dirt Site #3 – 49.6 Acres 16990-17190 Cucamonga Avenue, Chino, California 91708," dated November 2018, addresses Excess Fill Dirt Site No. 3 (APNs: 1057-201-05, -06, -07, and -08). This report is included as *Technical Appendix I4* to this EIR.

- The report titled, "Phase I Environmental Site Assessment Excess Fill Dirt Site #6 – 13.9 Acres 8403 Chino Corona Road, Chino, California 91710," dated November 2018, addresses Excess Fill Dirt Site No. 4 (APNs: 1057-212-10). This report is included as *Technical Appendix I5* to this EIR.

- The report titled, "Phase I Environmental Site Assessment – Majestic Chino Heritage Site #5 16754 Hellman Avenue, Chino, California 91708, 16.6 Acre Portion," dated March 2019, addresses Excess Fill Dirt Site No. 5 (APNs: 1057-181-24). This report is included as *Technical Appendix I6* to this EIR.

- The report titled, "Soil Sampling and Laboratory Analyses Summary Report for Proposed Chino Development and Five Soil Borrow Sites in the Area of Prado Regional Park, San Bernardino County, California," dated July 8, 2019, addresses the Project Site and Excess Fill Dirt Site Nos. 1 through 5. This report is included as *Technical Appendix I7* to this EIR.

This Subsection also relies on information from the City of Chino General Plan (Chino, 2010a); the City of Chino General Plan EIR (Chino, 2010b); and Google Earth Pro (Google Earth Pro, 2019). Refer to Section 7.0, *References*, for a complete list of reference sources.

For the purposes of this EIR, the term "toxic substance" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

For purposes of this EIR, the term "hazardous material" is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, § 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency (USEPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§ 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

4.8.1 Existing Conditions

Provided below is a summary of the results of a land use review, regulatory records review, and field reconnaissance conducted by SCS for the Project Site and excess fill dirt sites.

A. Historical Review, Regulatory Records Review, and Field Reconnaissance

1. Land Use Review

SCS reviewed various sources of information to determine the past uses of the Project Site and excess fill dirt sites, including historical aerial photographs, historical topographic maps, Environmental Data Resources (EDR)-Sanborn collection of regulatory database records, city directories, former site occupants, and former site ownership records. Refer to *Technical Appendices I1* through *I6* of this EIR for a more detailed description of SCS's research results for each respective property.

❑ Project Site

The Project Site is vacant and owned by the Orange County Flood Control District, but was previously used for agriculture and commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. Dairy operations on the Project site ceased between 2013 and 2014; all structures associated with the former dairy operations have since been demolished. By 2016, most of the buildings and infrastructure associated with dairy operations had been removed from the property; all structures were removed from the property by 2018. (SCS, 2018a, pp. 6-8)

The area surrounding the Project Site also was used for agriculture and dairy operations from the 1900s through the 1970s. By the 1980s, areas south and west of the site were developed as portions of the El Prado golf course operations. A concrete-lined segment of the Cypress Channel is located to the east. By 2006, most of the adjoining land uses to the north and east were developed with large warehouse buildings, which continue to exist. (SCS, 2018a, p. 8)

❑ Excess Fill Dirt Site No. 1

Excess Fill Dirt Site No. 1 was used for agriculture from the early 1930s through the 1970s. In 1922, a multiple-family residential use (7215 Pine Avenue) was developed on the northern portion of the site. By 1946, a single-family home (16532 Johnson Avenue) and additional small buildings were developed on the northeast corner of the site and continue to exist on the site. Between 1959 and 1987, residential and limited commercial development had increased on Excess Fill Dirt Site No. 1. Starting from 2006 through 2017, most of the buildings were demolished and removed from the site, with exception of one single-family home (16532 Johnson Avenue) and associated small buildings in the northeast corner of the site that are slated for removal in the near future. (SCS, 2018b, pp. 6-8)

The area surrounding Excess Fill Dirt Site No. 1 was either undeveloped or agricultural land from the early 1900s through the 1970s. In the late 1950s, the area directly east of Excess Fill Dirt Site No. 1 (i.e., Excess Fill Dirt Site No. 2) was occupied by a dairy operation. Most of the adjoining land uses have included dairy operations, agriculture, equestrian, limited commercial development, and a regional park. (SCS, 2018b, p. 8)

❑ Excess Fill Dirt Site No. 2

Excess Fill Dirt Site No. 2 was used for agriculture from 1938 to 1966. In 1957, two single-family homes were developed and listed as agriculture in the central portion of the site. In 1959, a dairy operation was developed on the northern portion of the site and the southern portion of the site continued to be used for agriculture. Between 1967 and the early 2000s, the dairy operation in the northern portion of the site expanded with additional buildings. By 2013, the two single-family homes in the central portion of the site were demolished and removed from the site. By 2016, all buildings on the site, including the dairy operation were removed. (SCS, 2018c, pp. 6-7)

The area surrounding Excess Fill Dirt Site No. 2 was either undeveloped or agricultural land from the early 1900s through the 1970s. By 1946, the site directly west of Excess Fill Dirt Site No. 2 was occupied by small buildings and by 1953, residential homes were built along Pine Avenue. By 1967, a women's state prison was constructed to the southeast of the site. By 1994, The Prado Equestrian Center was developed south of the site. The area began showing increasing development of commercial buildings by 2006. (SCS, 2018c, pp. 6-7)

❑ Excess Fill Dirt Site No. 3

Excess Fill Dirt Site No. 3 was used for agriculture from the early 1930s through 1967. In 1967, the site became occupied with a dairy operation and numerous pens and barn areas. By 2009, most of the buildings in the central portion of the dairy operation were removed. In 2011, five residential homes and two

barns/canopies at 16990-17190 Cucamonga Avenue were demolished and removed from the site. In 2012, the dairy operation was removed from the site. (SCS, 2018d, pp. 8-9)

The area surrounding Excess Fill Dirt Site No. 3 was undeveloped from the early 1900s through the 1940s. By 1953, the area was used for agriculture and in the 1960s the property located east of the site became occupied with a dairy operation. The dairy operation ceased in approximately 2010 and associated buildings were removed from the adjacent property in 2011. Most of the adjoining land uses included dairy operations, agriculture, limited commercial development, and a women's state prison. (SCS, 2018d, p. 9)

❑ Excess Fill Dirt Site No. 4

Excess Fill Dirt Site No. 4 was developed with residential buildings and other unknown structures by the 1930s. By the early 1950s, the site was used as a dairy production facility that operated into the late 1990s. By the early 2000s, the dairy operation was removed and the site has continued to remain vacant and undeveloped. (SCS, 2019a, pp. 6-7)

The area surrounding Excess Fill Dirt Site No. 4 had no notable development until the 1970s with expansion of numerous dairy operations. Dairy operations were the most predominant activity on land adjacent to the site until 2009, which was replaced with single-family housing development. (SCS, 2019a, pp. 7-8)

❑ Excess Fill Dirt Site No. 5

Excess Fill Dirt Site No. 5 was used for agriculture from 1930 through 1970s and most recently for dairy operations. In the early 1930s, a residential home and structures associated to a citrus orchard were developed on the site. In the 1980s, the site appeared to be converted into a dairy operation with most of the associated structures located in the eastern portion of the site. The dairy operations ceased in approximately 2015. By 2017, all buildings on the site were removed, and in 2017, the City of Chino issued a demolition permit for three (3) residential homes, 14 shade structures, and three (3) miscellaneous agricultural structures. (SCS, 2018e, pp. 8-9)

The area surrounding Excess Fill Dirt Site No. 5 was either undeveloped or agricultural land from the early 1900s through the 1950s. In the 1960s and 1970s, the general area was developed for dairy operations. Most of the adjoining land uses have included dairy operations, agriculture, and limited commercial development. (SCS, 2018e, pp. 9-10)

2. Regulatory Records Review

SCS researched federal, State, tribal, and local environmental records databases to identify properties within one-mile of the Project Site and excess fill dirt sites with reported environmental issues. A summary of the research results is provided below; a detailed description of the environmental record review results for the respective sites is included in *Technical Appendices I1* through *I6* of this EIR.

❑ Project Site

Five uses associated with former commercial dairy operations located on the Project Site were listed in six regulatory databases; these included Viega Dairy, Lekkerkerk Dairy #2, P&G Dairy, Hillview Dairy, and the

property address of 16311 Mountain Avenue owned by the County of Orange. With exception of the Viega Dairy facility, none of the listings suggest or indicate that former site operations resulted in environmental impairment to the property. The Viega Dairy operation completed an SB 1248 environmental soil cleanup for a simple waste release, and in 2001 the San Bernardino County Fire Department Hazardous Materials Division serving as the applicable regulatory authority issued a closure letter for contaminated soil removed from the site. Because the past release in connection with the Viega Dairy was addressed to the satisfaction of the applicable regulatory authority, the cleanup completed in 2011 is considered a Historical Recognized Environmental Condition (HREC) and do not pose an environmental hazard risk. A copy of the associated No Further Action letter is provided in Appendix D of *Technical Appendix I1* to this EIR. (SCS, 2018a, p. 10)

The regulatory database search was extended to a one-mile radius around the Project Site, which revealed three listed properties described on pages 10-11 of *Technical Appendix I1*. SCS determined that none of the regulatory database listings for properties near the Project Site represent a substantial environmental risk to the Project Site. (SCS, 2018a, pp. 10-11)

❑ Excess Fill Dirt Site No. 1

Three former uses located on Excess Fill Dirt Site No. 1 were listed in three regulatory databases but the cases are closed or terminated. Two of the listings were associated with underground vehicle fuel storage tanks and one listing was associated with a demolition. The two underground storage tanks were removed and petroleum-impacted soils were transported to licensed off-site recycling facilities. The San Bernardino County Fire Department serving as the applicable regulatory authority issued No Further Action letters for the two tank removals in 1997 and 1998. The demolition met unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. Because the former uses were removed and addressed to the satisfaction of the applicable regulatory authority or met unrestricted use criteria established by a regulatory authority, the sites are considered HRECs and do not pose an environmental hazard risk. (SCS, 2018b, p. 10)

The regulatory database search was extended to a one-mile radius around Excess Fill Dirt Site No. 1, which revealed one property listed in three databases, a former commercial dairy (located on Excess Fill Dirt Site No. 2) described on page 10 of *Technical Appendix I2*. SCS determined that none of the regulatory database listings for properties near the Excess Fill Dirt Site No. 1 represent a substantial environmental risk. (SCS, 2018b, p. 10)

❑ Excess Fill Dirt Site No. 2

Excess Fill Dirt Site No. 2 is listed on eight regulatory databases for formerly permitted activities and/or operations associated with a former dairy operation. None of the listed permitted activities resulted in an environmental impact, with the exception of a Leaking Underground Storage Tank (LUST) listing, which documented the presence of weathered gasoline constituents due to the removal of an on-site UST in 1971. No gasoline additives were detected and the future land use would exclude residential development; therefore, the Santa Ana Regional Water Quality Control Board (RWQCB) issued a No Further Action letter in 2009. Due to present residual gasoline constituents, SCS considers the contamination to be a Controlled Recognized Environmental Condition (CREC), meaning the contamination has been subject to required controls to meet regulatory requirements. (SCS, 2018c, pp. 9-10)

The regulatory database search was extended to a one-mile radius around Excess Fill Dirt Site No. 2, which revealed three properties listed in three regulatory databases related to hazardous materials and hazardous waste. Specifically, these three properties are located on Excess Fill Dirt Site No. 1. Refer to Excess Fill Dirt Site No. 1, above, or *Technical Appendix I3*, for a detailed summary of the three listings in proximity to Excess Fill Dirt Site No. 2. None of the regulatory database listings for properties near Excess Fill Dirt Site No. 2 represent a substantial environmental risk to Excess Fill Dirt Site No. 2 (SCS, 2018c, p. 10).

❑ Excess Fill Dirt Site No. 3

Excess Fill Dirt Site No. 3 is listed on five regulatory databases for permitted activities and operations associated with a former dairy operation. None of the database listings for the former dairy operation represented a substantial environmental risk to Excess Fill Dirt Site No. 3. Furthermore, none of the adjacent sites are listed on regulatory databases. (SCS, 2018d, p. 11)

❑ Excess Fill Dirt Site No. 4

Excess Fill Dirt Site No. 4 is listed on one regulatory database (San Bernardino County Permit) as a special generator, which is typically associated with dairy operation waste. The permit expired in 1997, indicating the dairy facility ceased operation at the property; therefore, no environmental impacts to the site are reasonably expected from the permit listing. Furthermore, none of the adjacent sites are listed on regulatory databases. (SCS, 2019a, pp. 8-9)

❑ Excess Fill Dirt Site No. 5

Excess Fill Dirt Site No. 5 is listed on one regulatory database (San Bernardino County Permit) as a special generator, which is typically associated with dairy operation waste. The permit expired in 1997, indicating the dairy facility ceased operation at the property; therefore, no environmental impacts to the site are reasonably expected from the permit listing. (SCS, 2018e, p. 9)

Two properties (i.e., Vander Laan Dairy and Viramontes Express) within a ¼-mile radius of Excess Fill Dirt Site No. 5 are listed on two regulatory databases related to hazardous materials and hazardous waste. Refer to *Technical Appendix I6* for a detailed summary of the two listings. None of the regulatory database listings for properties near Excess Fill Dirt Site No. 5 represent a substantial environmental risk to Excess Fill Dirt Site No. 5. (SCS, 2018e, pp. 9-10)

3. Field Reconnaissance

❑ Project Site

SCS conducted an inspection of the Project Site on October 5, 2018, and the conditions of the Project Site have not changed substantially since the inspection was conducted. During the field inspection, SCS observed the property to be mainly vacant and undeveloped with a concrete-lined drainage channel along the eastern boundary of the Site and concrete-paved areas related to former dairy operations in the western portion of the Site along Mountain Avenue. No evidence of USTs, Aboveground Storage Tanks (ASTs), hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on the Project Site. Electrical transformers were observed along the western Project boundary on

Mountain Avenue; however, the observed transformers are not believed to contain high concentrations of polychlorinated biphenyls (PCBs) because SCE exclusively utilizes mineral oils as the insulating/cooling fluid for electrical transformers. (SCS, 2018a, p. 5) (SCS, 2018e, p. 5)

❑ Excess Fill Dirt Site No. 1

SCS conducted an inspection of Excess Fill Dirt Site No. 1 on October 5, 2018, and the conditions of Excess Fill Dirt Site No. 1 have not changed substantially since the inspection was conducted. During the site inspection, SCS observed the property to be mainly vacant and undeveloped with fencing dividing portions of the property, electrical power lines transecting the site from east to west, and a residence/corral area located in the northeast portion of the site. No evidence of USTs, hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on Excess Fill Dirt Site No.1. A propane storage tank was observed in the area south of the residence on the property. (SCS, 2018b, pp. 5, 13)

❑ Excess Fill Dirt Site No. 2

SCS conducted an inspection of Excess Fill Dirt Site No. 2 on October 5, 2018, and the conditions of Excess Fill Dirt Site No. 2 have not changed substantially since the inspection was conducted. During the site inspection, SCS observed the property to be vacant and undeveloped. No evidence of USTs, ASTs, illicit dumping of soil debris, hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on the site. (SCS, 2018c, p. 5)

❑ Excess Fill Dirt Site No. 3

SCS conducted an inspection of Excess Fill Dirt Site No. 3 on October 5, 2018, and the conditions of Excess Fill Dirt Site No. 3 have not changed substantially since the inspection was conducted. During the site inspection, SCS observed the property to be vacant and undeveloped with an engineered access road present in the central portion of the site. No evidence of USTs, ASTs, illicit dumping of soil debris, hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on the site. (SCS, 2018d, p. 7)

❑ Excess Fill Dirt Site No. 4

SCS conducted an inspection of Excess Fill Dirt Site No. 4 on March 5, 2019, and the conditions of Excess Fill Dirt Site No. 4 have not changed substantially since the inspection was conducted. During the site inspection, SCS observed the property to be vacant and undeveloped with the presence of former dairy operations, including a fenced impoundment in the southwest portion of the site, a concrete pavement for former covered cattle feeding units, a circular aboveground cattle water drinking station, and construction rubble and debris. No evidence of USTs, ASTs, hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on the site. Electrical transformers were observed on the eastern site boundary; however, the observed transformers are not believed to contain high concentrations of PCBs because SCE exclusively utilizes mineral oils as the insulating/cooling fluid for electrical transformers. (SCS, 2019a, pp. 1, 4-5)

❑ **Excess Fill Dirt Site No. 5**

SCS conducted an inspection of Excess Fill Dirt Site No. 5 on October 5, 2018, and the conditions of Excess Fill Dirt Site No. 5 have not changed substantially since the inspection was conducted. During the site inspection, SCS observed the property to be vacant and undeveloped. No evidence of USTs, ASTs, illicit dumping of soils, debris, hazardous substances or hazardous wastes, hydraulic equipment, sanitary or process wastewater, or groundwater wells were found on the site. (SCS, 2018e, p. 7)

B. Airport Hazards

The Project Site is located approximately 1.6 miles southwest of the nearest runway at the Chino Airport. At present, there is no valid Airport Land Use Compatibility Plan (ALUCP) for the Chino Airport, as the most recent ALUCP for the Chino Airport (adopted in 1991) does not reflect the Airport's current Master Plan. As previously shown in EIR Figure 2-4, the Project Site is located within the Airport Influence Area (AIA) for the Chino Airport, with the Project Site located within Airport Safety Zones II and III. Within Safety Zone II, the 1991 ALUCP discourages residential development and recommends that non-residential uses in enclosed structures be limited to no more than 25 persons per acre. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7)

Due to the proximity of the Chino Airport to communities within Riverside County, the Riverside County Airport Land Use Commission (ALUC) adopted an ALUCP for the Chino Airport in 2008. According to the Riverside County ALUC's ALUCP for the Chino Airport, the entire Project Site is located within Compatibility Zone "D." Very tall buildings and noise-sensitive land uses are prohibited within Compatibility Zone D; however, industrial land uses are generally permissible within this Compatibility Zone. (RCALUC, 2008, Map CH-1). This information is presented for informational purposes only, as the Project Site is located in San Bernardino County and the Riverside County ALUC has no jurisdictional authority over the Project Site or the proposed Project evaluated herein.

C. Wildland Fire Hazards

The Project Site is located in a portion of the City of Chino that does not contain any wildlands. The City of Chino General Plan designates the Project Site and its surrounding area as being subject to "little or no threat" from wildland fires (Chino, 2010a, Figure SAF-4). According to the California Department of Forestry and Fire Protection (CalFire), there are no very high fire hazard severity zones within Local Responsibility Areas or State Responsibility Areas in the City of Chino (Chino, 2010a, p. SAF-11).

4.8.2 Applicable Environmental Plans, Policies, and Regulations

Hazardous materials and hazardous wastes are regulated by various federal, State, and local regulations to protect public health and the environment. This section summarizes the overall regulatory framework governing hazardous materials management that is applicable to the Project, Project Site, and Excess Fill Dirt Site Nos. 1 through 5.

A. Federal Plans, Policies, and Regulations

1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. (EPA, 2019a)

The EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, the EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The EPA also recovers costs from financially viable individuals and companies once a response action has been completed. (EPA, 2019a)

The EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. (EPA, 2019a)

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). (EPA, 2019a)

2. Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives the EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. (EPA, 2019b)

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. (EPA, 2019b)

3. Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.)

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177 (OSHA, n.d.)

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts State and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement. (OSHA, n.d.)

4. Hazardous Materials Transformation Uniform Safety Act of 1990

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. (OSHA, n.d.)

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials. (OSHA, n.d.)

5. Occupational Safety and Health Act (OSHA)

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. (EPA, 2017a)

In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. (EPA, 2017a)

6. Toxic Substances Control Act

The Toxic Substances Control Act of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. (EPA, 2018)

Various sections of the TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law but are submitted by industry and public interest groups for a variety of reasons. (EPA, 2018)

7. Federal Aviation Regulations Part 77

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects. (FAA, 2019)

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA (FAA, 2019):

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
- within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
- within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
- within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2019)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2019)

B. State Plans, Policies, and Regulations

1. Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace. (OSHA, n.d.)

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the state, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances. Cal/OSHA is the only agency in the state authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries, or illnesses. (OSHA, n.d.)

2. California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Article 2, Section 25100, *et seq.*) is the primary hazardous waste statute in California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA). (CA Legislative Info, n.d.)

3. California Code of Regulations (CCR), Titles 22 and 26

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, *et seq.*) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the HSC, Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as "Title 22." (DTSC, n.d.; DTSC, 2019)

4. State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and

specifically introduces the intent of the CASP and how it can be used to support California aviation. (CA Legislative Info, n.d.)

C. Local Plans, Policies, and Regulations

1. Local Permitting Requirements

The aforementioned federal and State hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA with responsibility for the City of Chino is the San Bernardino County Fire Department, Hazardous Materials Division (Chino, 2010b, p. 4.7-3). The San Bernardino County Fire Department, Hazardous Materials Division also manages the following hazardous waste programs: 1) Hazardous Materials Release Response Plans and Inventory; 2) California Accidental Release Program; 3) Underground Storage Tanks; 4) Aboveground Petroleum Storage Act/Spill Prevention, Control, and Countermeasure Plan; 5) Hazardous Waste Generation and Onsite Treatment; and 6) Hazardous Materials Management Plans and Inventory.

2. Chino Airport Land Use Compatibility Plans

The 1991 Chino ALUCP and 2008 Chino ALUCP (adopted by Riverside County ALUC) identify land use standards and design criteria for new development located in the proximity of the Chino Airport to ensure compatibility between the airport and surrounding land uses and to maximize public safety. As mentioned in Subsection 4.8.1B, the Project Site is located within Airport Safety Zones II and III. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7)

According to the Riverside County ALUC's ALUCP for the Chino Airport, the entire Project Site is located within Compatibility Zone "D" (RCALUC, 2008, Map CH-1). This information is presented for informational purposes only, as the Project Site is located in San Bernardino County and the Riverside County ALUC has no jurisdictional authority over the Project Site or the proposed Project evaluated herein.

4.8.3 Basis for Determining Significance

The proposed Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

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 release of hazardous materials into the environment;*

c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to hazards and hazardous materials that could result from development projects such as the proposed Project.

4.8.4 IMPACT ANALYSIS

Threshold a:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?***
Threshold b:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

A. Impact Analysis for Existing Site Conditions

1. Project Site

As discussed in Subsection 4.8.1, the Project Site contains no evidence of RECs, USTs, ASTs, or significant chemical release/disposal on the Project Site (SCS, 2018a, p. 5).

Because the Project Site was used in the past for agricultural activities, there is the potential that pesticides were used on the property. SCS did not observe any signs of pesticide use, storage, or mismanagement on the Project Site associated with the former agricultural use. The types of pesticides most commonly associated with adverse human health effects (organochlorides such as DDT and dieldrin) were banned from agricultural use in the early 1970s. Given the rate of degradation for organochloride pesticides and the amount of time that has passed since these pesticides could have, theoretically, been applied to the site, the Project Site likely only contains trace concentrations of pesticides – if any at all. None of the soil samples conducted by SCS contained concentrations of organochloride pesticides (OCPs) or heavy metals exceeding regulatory soil screening criteria (SCS, 2019b, p. 3). Furthermore, it is not uncommon to find trace amounts of pesticides in the soils of former agricultural areas in Southern California, but that trace concentrations of pesticides do not represent a hazard to the proposed industrial use of the Project Site and, also, do not represent a hazard to the environment or to people who live near the Project Site or may work on the site. (SCS, 2018a, p. 8) Impacts would be less than significant.

2. Excess Fill Dirt Site No. 1

As discussed in Subsection 4.8.1, Excess Fill Dirt Site No. 1 contains an HREC and no evidence of RECs, ASTs, USTs, or significant chemical release/disposal. The HREC consists of several USTs that previously existed on the site, but regulatory closure letters were issued by the San Bernardino County Fire Department in the late 1990s. The tall electrical power lines transecting the site from east to west would not pose a significant hazard because they would be kept in place and the supporting structures would not be disturbed.

Similar to the Project Site, Excess Fill Dirt Site No. 1 was used in the past for agricultural activities, which indicates a likely possibility for trace concentrations of pesticides to be located on the property. According to the soil report conducted by SCS, none of the soil samples on Excess Fill Dirt Site No. 1 contain OCP concentrations that exceed regulatory soil screening criteria (SCS, 2019b, p. 3). SCS concluded that trace concentrations do not represent a hazard to the environment or to people who live near Excess Fill Dirt Site No. 1; therefore, the process of excavating and transporting fill dirt from Excess Fill Dirt Site No. 1 would pose a less-than-significant impact due to trace pesticides. (SCS, 2018b, p. 8)

3. Excess Fill Dirt Site No. 2

As discussed in Subsection 4.8.1, Excess Fill Dirt Site No. 2 contains no evidence of RECs, USTs, ASTs, or significant chemical release/disposal (SCS, 2018c, p. 5).

Similar to the Project Site, Excess Fill Dirt Site No. 2 was used in the past for agricultural activities, which indicates a likely possibility for trace concentrations of pesticides to be located on the property. According to the soil report conducted by SCS, none of the soil samples on Excess Fill Dirt Site No. 2 contain OCP concentrations that exceed regulatory soil screening criteria (SCS, 2019b, p. 3). SCS concluded that trace concentrations do not represent a hazard to the environment or to people who live near Excess Fill Dirt Site No. 2; therefore, the process of excavating and transporting fill dirt from Excess Fill Dirt Site No. 2 would pose a less-than-significant impact due to trace pesticides. (SCS, 2018b, p. 8)

As discussed in Subsection 4.8.1A.2, a regulatory record detected residual gasoline constituents on the Excess Fill Dirt Site No. 2 due to the removal of an on-site UST in 1971. No gasoline additives were detected and the site was determined to not be planned for residential development; therefore, the Santa Ana Regional Water Quality Control Board (RWQCB) issued a No Further Action letter in 2009. Due to present residual gasoline constituents, SCS determined the contamination to be a CREC, meaning the contamination has been subject to required controls to meet regulatory requirements (SCS, 2018c, pp. 9-10); therefore, impacts would be less than significant.

4. Excess Fill Dirt Site No. 3

As discussed in Subsection 4.8.1, Excess Fill Dirt Site No. 3 contains no evidence of RECs, USTs, ASTs, or significant chemical release/disposal (SCS, 2018d, p. 7).

Similar to the Project Site, Excess Fill Dirt Site No. 3 was used in the past for agricultural activities, which indicates a likely possibility for trace concentrations of pesticides to be located on the property. According to the soil report conducted by SCS, none of the soil samples on Excess Fill Dirt Site No. 3 contain OCP

concentrations that exceed regulatory soil screening criteria (SCS, 2019b, p. 3). SCS concluded that trace concentrations do not represent a hazard to the environment or to people who live near Excess Fill Dirt Site No. 3; therefore, the process of excavating and transporting fill dirt from Excess Fill Dirt Site No. 3 would pose a less-than-significant impact due to trace pesticides. (SCS, 2018b, p. 8)

5. Excess Fill Dirt Site No. 4

As discussed in Subsection 4.8.1, Excess Fill Dirt Site No. 4 contains no evidence of RECs, USTs, ASTs, or significant chemical release/disposal on the property. During the field investigation, SCS found former dairy operation features including a fenced impoundment, concrete pavement for former cattle feeding units, a cattle water drinking station, and construction rubble and debris. (SCS, 2019a, pp. 1, 4-5) SCS determined that none of the former dairy features pose a significant environmental or human health hazard and as such, the process of excavating and transporting fill dirt from Excess Fill Dirt Site No. 4 would pose a less-than-significant hazards impact.

6. Excess Fill Dirt Site No. 5

As discussed in Subsection 4.8.1, Excess Fill Dirt Site No. 5 contains no evidence of RECs, USTs, ASTs, or significant chemical release/disposal (SCS, 2018e, p. 7).

Similar to the Project Site, Excess Fill Dirt Site No. 5 was used in the past for agricultural activities, which indicates a likely possibility for trace concentrations of pesticides to be located on the property According to the soil report conducted by SCS, none of the soil samples on Excess Fill Dirt Site No. 5 contain OCP concentrations that exceed regulatory soil screening criteria (SCS, 2019b, p. 3). SCS determined that trace concentrations do not represent a hazard to the environment or to people who live near Excess Fill Dirt Site No. 5; therefore, the process of excavating and transporting fill dirt from Excess Fill Dirt Site No. 5 would pose a less-than-significant impact due to trace pesticides. (SCS, 2018b, p. 8)

B. Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project Site during construction of the Project. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be used on the Project Site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the EPA and DTSC, as well as the Santa Ana RWQCB pertaining to water quality as discussed in Subsection 4.9, *Hydrology and Water Quality*. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less-than-significant impact would occur.

Heavy equipment also would be used during soil exporting activities on Excess Fill Dirt Site Nos. 1 through 5. No development is proposed on Excess Fill Dirt Site Nos. 1 through 5; therefore, heavy equipment would be the only potential source of hazardous materials on Excess Fill Dirt Site Nos. 1 through 5 if improperly stored or handled. Due to required mandatory compliance with applicable hazardous materials regulations, no significant hazard would occur through routine transport, use, or disposal during the construction phase on Excess Fill Dirt Sites No. 1 through 5. Impacts would be less than significant.

C. Impact Analysis for Long-Term Operation

1. Project Site

The future building users that would occupy the proposed cross-dock industrial buildings are not yet known. The future occupants of the buildings are not known at the time of writing this EIR, but based on the building designs, the Project Applicant has indicated that the occupants are expected to be high-cube fulfillment/e-commerce and/or high-cube logistics/cold storage warehouse businesses. The buildings would be required to be constructed in accordance with the California Building Standards Code and include all of the energy efficiency features required by Title 24 (CalGreen Code).

It is possible that hazardous materials could be used during the course of a future building user's daily operations. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies the buildings on the Project Site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) would require a permit from the San Bernardino County Fire Department Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the County of San Bernardino Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business. In addition, any business handling at any one time, greater than 500 pounds of solid, 55 gallons of liquid, or 200 cubic feet of gaseous hazardous material, is required, under Assembly Bill 2185 (AB 2185), to file a Hazardous Materials Business Emergency Plan (HMBEP). A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and State Community Right-To-Know laws and to provide detailed information for use by emergency responders.

If a business that uses or stores hazardous materials occupies the proposed industrial buildings on the Project Site, the business owner(s) and operator(s) would be required to comply with all applicable federal, State, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances (as described above). With mandatory regulatory compliance, the Project is not expected to pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment.

Based on the foregoing information, potential hazardous materials impacts associated with long-term operation of the Project are determined to be less than significant and mitigation is not required.

2. Excess Fill Dirt Site Nos. 1 through 5

Excess Fill Dirt Site Nos. 1 through 5 would only be utilized by the Project during construction to export excess fill to the Project Site. Following construction activities, the portions of each of the excess fill dirt sites that were affected by the Project's construction would be hydroseeded and returned back to a vacant condition. Therefore, the Project would have no potential to pose a significant hazard during long-term operations at the excess fill dirt sites. No impact would occur.

Threshold c: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No existing or proposed schools are located within one-quarter mile of the Project Site. The nearest operating school to the Project Site is Chino Hills High School, located at 16150 Pomona Rincon Road, approximately 1.1 miles west of the Project Site in direct linear distance (Google Earth Pro, 2019). The next closest school is Cal Aero Preserve Academy located approximately 1.9 miles northeast of the Project Site. Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school.

As described above under the analysis for Thresholds "a" and "b," the transport of hazardous substances or materials to-and-from the Project Site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations, which would preclude substantial public safety hazards. Additionally, no hazardous materials other than less-than-significant trace amounts of residual soil pesticides would be transported from Excess Fill Dirt Sites 1 through 5 during construction. Accordingly, there would be no potential for existing or proposed schools to be exposed to substantial safety hazards associated with the routine transport of substances or materials to-and-from the Project Site and excess fill dirt sites. Thus, a less-than-significant impact would occur and no mitigation is required.

Refer to EIR Subsection 4.2, *Air Quality*, for analysis pertaining to human health risks associated with air pollutant emissions associated with the Project, including risks to the maximally exposed school child receptors. Schools are located more than one-quarter mile from the Project Site but within a one-quarter mile of truck routes on which the Project's truck traffic would travel. As concluded in EIR Subsection 4.2, *Air Quality*, the Project's toxic air contaminant emissions (and their associated health risks) would be less than significant to all sensitive receptors, including school child receptors, near the Project Site and the primary truck travel routes to/from the Project Site.

No development is proposed on Excess Fill Dirt Site Nos. 1 through 5 as part of the Project; the only activity proposed is soil excavation and transport, and hydroseeding upon completion. Therefore, the Project would have no long-term potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste associated with the excess fill dirt sites in the long term. No operational-related impact to existing and proposed schools within one-quarter mile of the excess fill dirt sites would thus occur.

Threshold d: ***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?***

Neither the Project Site nor any of the proposed excess fill dirt sites are located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (DTSC, 2019; SCS, 2018a, p. 11). Accordingly, no impact would occur.

Threshold 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 or excessive noise for people residing or working in the project area?***

According to the City of Chino General Plan, the land uses and site layout proposed by the Project would be compatible within Airport Safety Zones II and III of the Chino Airport ALUCP (Chino, 2010a, LU-24). The Project would not interfere with flight operations at the Chino Airport because the buildings proposed by the Project Applicant are not tall enough to encroach the flight path in and around the Airport, including the flight path for the crosswind runway that is oriented toward the Project Site, and the Project does not include an air travel component (e.g., runway, helipad). Because the industrial land use proposed by the Project would be compatible with the applicable Chino Airport Safety Zones and because the Project would not interfere with operations at the Chino Airport, the Project would not result in safety hazards for people residing or working in the Project area. Impacts would be less than significant and mitigation is not required.

The Project Site is located approximately 7.3 miles southwest of the nearest runway at the Ontario International Airport in direct linear distance (Google Earth Pro, 2019). The Project Site is not located within the AIA for the Ontario International Airport; therefore, the Project would not be exposed to airport safety hazards associated with this facility (Ontario, 2011, Map 2-1).

Only soil excavation and exporting activities would occur on Excess Fill Dirt Site Nos. 1 through 5; no development is proposed by the Project and no people or structures would permanently reside or work on any of the excess fill dirt sites as a result of the Project. Therefore, the Project would have no potential to create an airport safety hazard on any of the excess fill dirt sites.

Based on the foregoing, implementation of the proposed Project would not result in an airport safety hazard for people living or working on the Project area and impacts would be less than significant.

Threshold f: ***Would the Project impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation on the Project Site, the City of Chino would require that adequate access for emergency vehicles be maintained along public streets that abut the Project Site. As part of the City's discretionary review process, the City of Chino reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project Site and that circulation on the Project Site's interior was adequate for emergency vehicles. Accordingly, implementation

of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Only soil excavation and exporting activities would occur on Excess Fill Dirt Site Nos. 1 through 5; no development is proposed by the Project and no people or structures would permanently reside or work on any of the excess fill dirt sites as a result of the Project that require emergency access. Therefore, the Project would have no potential to physically interfere with an adopted emergency response plan or emergency evacuation plan on any of the excess fill dirt sites. No impact would occur.

Threshold g: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Project Site is not located within a State Responsibility Area or a very high fire hazard severity zone (Chino, 2010a, p. SAF-11). Neither CalFire nor the City of Chino identify the Project Site within an area susceptible to wildland fires and the Project Site and surrounding areas generally consist of agricultural, golf course, public facility, industrial and/or residential uses, which are generally not associated with wildland fire hazards. (Google Earth Pro, 2019). Accordingly, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Only soil excavation and exporting activities would occur on Excess Fill Dirt Site Nos. 1 through 5; no development is proposed by the Project and no people or structures would permanently reside or work on any of the excess fill dirt sites as a result of the Project. Accordingly, there would be no potential for the Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires at Excess Fill Dirt Site Nos. 1 through 5. No impact would occur.

4.8.5 Cumulative Impact Analysis

As discussed above under the responses to Thresholds "a" and "b," the Project Applicant would be required to comply with all applicable federal, State, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, State, and local regulations, and such uses would be subject to additional review and permits from their applicable fire department. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less-than-cumulatively-significant level. Accordingly, the Project's (including the Project Site and five excess fill dirt sites) potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project Site is not located within one-quarter mile of an existing or planned school and only soil exporting activities would occur on Excess Fill Dirt Site Nos. 1 through 5; therefore, the Project would not contribute to a cumulatively-considerable hazards/hazardous materials impact on any public or private schools located within one-quarter mile of the Project Site or any of the proposed excess fill dirt sites.

Neither the Project Site nor any of the proposed excess fill dirt sites are located on the list of hazardous materials sites compiled pursuant to Government Code § 65962.5. In the unlikely event that hazardous materials are encountered beneath the surface of the Project Site or any of the proposed excess fill dirt sites during grading or construction, the materials would be handled and disposed of in accordance with applicable regulatory requirements. Therefore, the Project would not contribute to a cumulatively significant hazardous materials impact associated with a listed hazardous materials site.

The Project would not introduce any land use to the Project Site or any of the proposed excess fill dirt sites that would conflict with the 1991 Chino ALUCP or Riverside County ALUC's 2008 Chino ALUCP. As such, cumulatively-considerable impacts associated with airport-related hazards would be less than significant and no mitigation would be required.

Neither the Project Site nor any of the excess fill dirt sites contain any emergency facilities or serves as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative-considerable impacts associated with an adopted emergency response plan or emergency evacuation plan.

Lastly, the Project Site is not located within or in close proximity to areas identified as being subject to wildland fire hazards. Additionally, as the surrounding area continues to develop, lands that are currently vacant would be developed in a manner consistent with jurisdictional requirements for fire protection and would generally decrease the fire hazard potential in the local area. Excess Fill Dirt Site Nos. 1 through 5 would undergo temporary construction (i.e., soil exporting activity) and afterwards would be hydroseeded – no development is proposed on these sites by the Project; therefore, no people would be at risk of wildland fire hazards. Accordingly, the Project's contribution to cumulatively-considerable wildfire impacts would be less than significant.

4.8.6 Significance of Impacts Before Mitigation

Thresholds a and b: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold c: No Impact. The Project site is not located within one-quarter mile of any existing or proposed school and only temporary soil excavation and exporting activity is proposed on the excess fill dirt sites, which would not pose a significant hazard to school sites. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Threshold d: No Impact. Neither the Project Site nor any of the excess fill dirt sites are located on any list of hazardous materials sites complied pursuant to Government Code § 65962.5.

Threshold e: Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the 1991 Chino ALUCP and 2008 Chino ALUCP. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold f: Less-than-Significant Impact. The Project Site and proposed excess fill dirt sites do not contain any emergency facilities or serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold g: No Impact. The Project Site is not located in close proximity to wildlands or areas with high fire hazards. In addition, the proposed excess fill dirt sites are only be utilized for temporary soil exporting activity – no development would occur; therefore, no people or structures would be exposed to a significant wildland fire risk.

4.8.7 Mitigation

Impacts would be less than significant; therefore, mitigation would not be required.

4.9 HYDROLOGY AND WATER QUALITY

Information in this Subsection relies on three technical reports prepared for the Project Site by PBLA Engineering, Inc. (hereafter, "PBLA"): 1) "Preliminary Hydrology Study Majestic Chino Heritage Buildings 1 and 2," dated March 2019 (PBLA, 2019a); 2) "Preliminary Water Quality Management Plan For: Majestic Chino Heritage," dated January 28, 2020 (PBLA, 2020); and 3) "Post Construction Hydrology – Majestic Chino Heritage Borrow Sites Memo," dated November 2, 2019 (PBLA, 2019b). These reports are provided as *Technical Appendices J1, K, and J2* to this EIR, respectively.

The Project Site and excess fill dirt sites are located within the Santa Ana River watershed and are under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). As such, information for this Subsection also was obtained from the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* (updated June 2019) and the *Integrated Regional Water Management Plan (IRWMP)* for the Santa Ana River watershed (also referred to as "One Water One Watershed Plan Update 2018," (February 19, 2019) prepared by the Santa Ana Watershed Project Authority (SAWPA). These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in EIR Section 7.0, *References*.

4.9.1 EXISTING CONDITIONS

A. Regional Hydrology

The Project Site and Excess Fill Dirt Site Nos. 1 through 5 are located within the Santa Ana River watershed, which drains a 2,840 square-mile area and is the principal surface flow water body within the region. The Santa Ana River rises in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles. (SAWPA, 2018, p. 4-1) The locations of the Project Site and Excess Fill Dirt Site Nos. 1 through 5 within the Santa Ana River watershed are depicted on Figure 4.9-1, *Santa Ana River Watershed Map*.

Prado Dam is an existing dam that was constructed by the U.S. Army Corps of Engineers (USACE) on the lower Santa Ana River in 1941 to minimize flood risks. Modifications to Prado Dam were recently completed where the main embankment was raised from the 566-foot elevation National Geodetic Vertical Datum (NGVD)[1] of 1929 to elevation 594.4 feet NGVD. The USACE is planning to further modify the spillway crest in the future by raising it from elevation 543 NGVD to elevation 563 feet NGVD. The Project Site and Excess Fill Dirt Site Nos. 1 through 5 are located upstream of the Prado Dam, within the Dam's "Reservoir Area." According to the USACE, the Prado Dam and Reservoir serve as the principal regulating structure on the Santa Ana River, which is comprised of more than 11,500 acres: 4,100 acres of which are riparian habitat; 4,823 acres are recreation areas, and 2,400 acres are owned by the Orange County Water District (USACE, 2019a). The Project Site and Excess Fill Dirt Site No. 1 through 5 are located upstream of the Prado Dam within the Prado Dam Reservoir Area and are owned by the Orange County Flood Control District. Because the Project

[1] National Geodetic Vertical Datum (NGVD) is a unified framework for all positioning activities in the United States, including the foundational elements of latitude, longitude, elevation, and shoreline information. A NGVD of zero is commonly called "sea level" but NGVD is more technical because the sea is not actually flat. Throughout this EIR, mean sea level (MSL) and NGVD are used interchangeably.

Site is located in the Reservoir Area (i.e., areas at or below 566 feet above mean sea level (AMSL)), the portions of the Project Site proposed for building construction would need to be raised above 566 AMSL and brought out of the Reservoir Area in order to be developed. Concurrently, portions of the excess fill dirt sites would need to be excavated and lowered in elevation to make up for the loss of water holding capacity on the Project Site. The City of Chino General Plan EIR calls the Reservoir Area and areas prone to flooding from the Prado Dam by the general term "inundation area" as shown on Figure 4.9-2, *City of Chino General Plan EIR Exhibit: 566 Foot Prado Dam Inundation Area.*

B. Hydrology

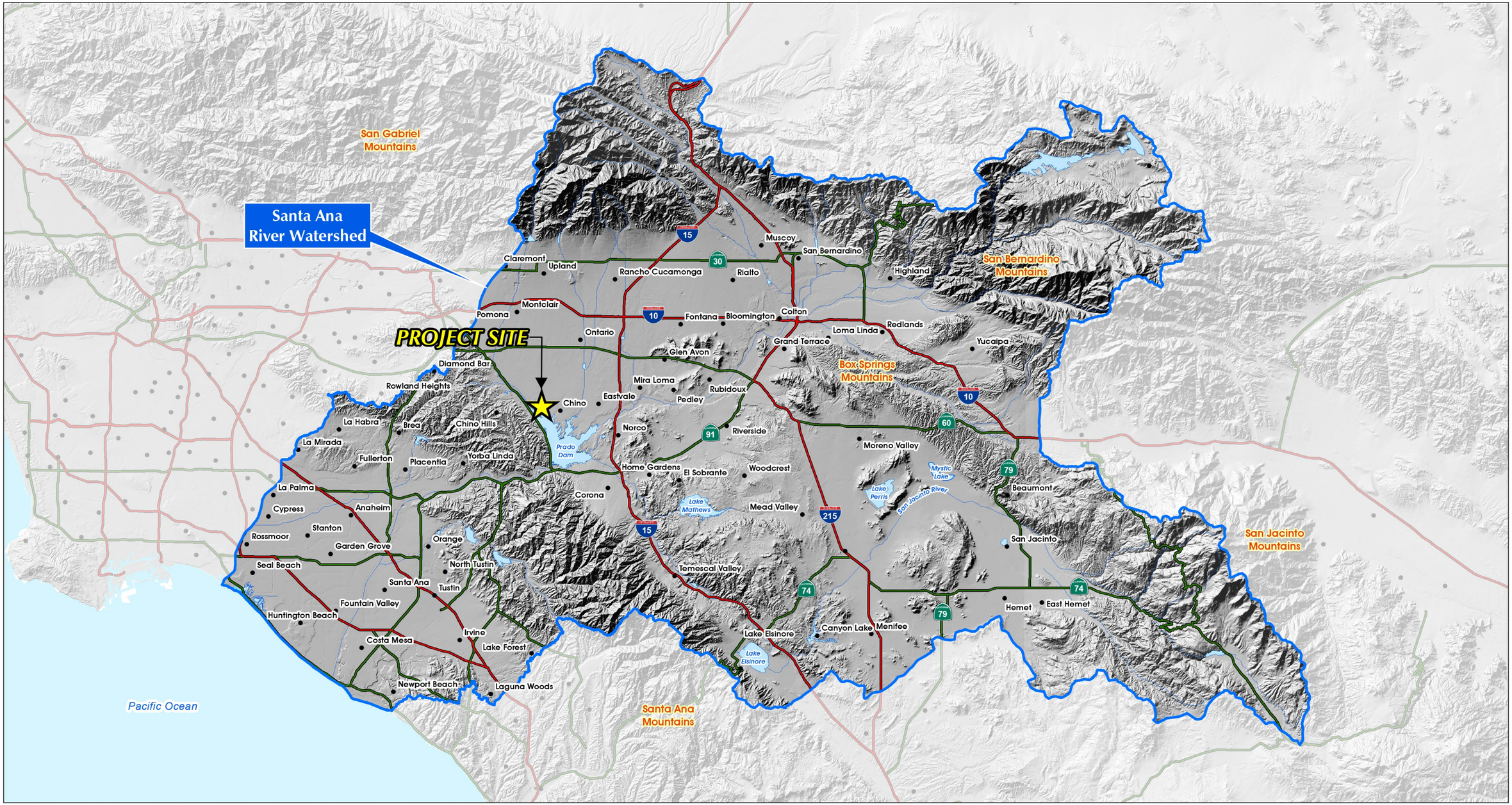
1. Project Site

The proposed Project Site is presently vacant. The buildings and cattle shelters from the past have been removed but several slabs on grade and foundations are still in place. In the existing condition, several berms are constructed across the Site and within the northeast corner of the Site, some of the berms are fitted with concrete spillways. Most of the berms have heights ranging from three to six feet, and consist of relatively loose undocumented fill. The northeast corner of the Site contains the remnants of an agricultural wastewater/stormwater pond. This pond is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep containing vegetation and trash; this pond retains water during several months of the year. Two relatively smaller retention ponds approximately 10 to 12 feet deep are located on the Site adjacent to Mountain Avenue. Along the east property line, within the southeast portion of the Site, there is a slope descending about 10 to 13 feet to a flood basin area located off site to the east. (Koury, 2019a, p. 2) (PBLA, 2019a)

As illustrated on Figure 4.9-3, *Existing Conditions Hydrology Map*, the Project Site contains two separate drainage basins; stormwater flows across each drainage basin as surface sheet flow. Runoff within the western drainage basin, which encompasses a majority of the western portions of the Site, generally flows from the northwest to the southeast corner of the Project Site. Runoff in the eastern drainage basin, which encompasses the northeastern portion of the Project Site, also sheet flows from the northwest to the southeast. The total peak runoff discharged from both drainage basins under existing conditions during a 100-year storm is 177.5 cubic feet per second (cfs). (PBLA, 2019a, p. 4)

2. Excess Fill Dirt Sites Nos. 1 through 5

Several berms and small detention basins are located on each of the excess fill dirt sites. Excess Fill Dirt Site No. 1 is bisected by a creek/drainage that flows through the center of the property from north to south as shown on Figure 3-15 in Section 3.0 of this EIR. As shown on Figure 3-16 in Section 3.0 of this EIR, stormwater generally flows across Excess Fill Dirt Site No. 2 as surface sheet flow, generally from the northern portion of the site to its southwest corner. As shown on Figure 3-17, Figure 3-18, and Figure 3-19 in Section 3.0 of this EIR, stormwater flows across Excess Fill Dirt Site Nos. 3, 4, and 5 respectively, as surface sheet flow, generally from the northern portion of the sites to the southern portion of the sites.

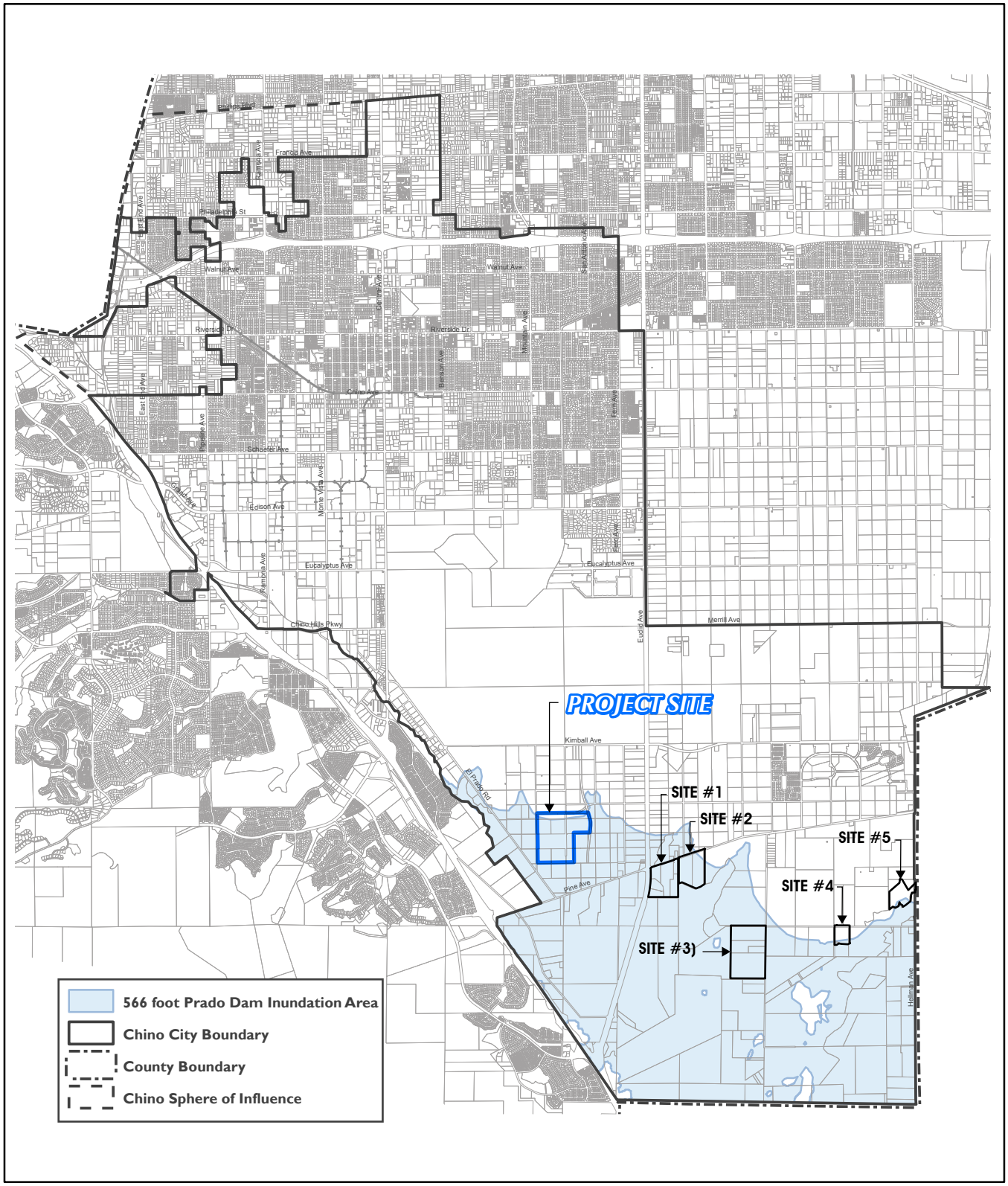


Source(s): ESRI, RCTLMA (2019), SANBAG (2018)

0 2 4 8 Miles

Figure 4.9-1

SANTA ANA RIVER WATERSHED MAP

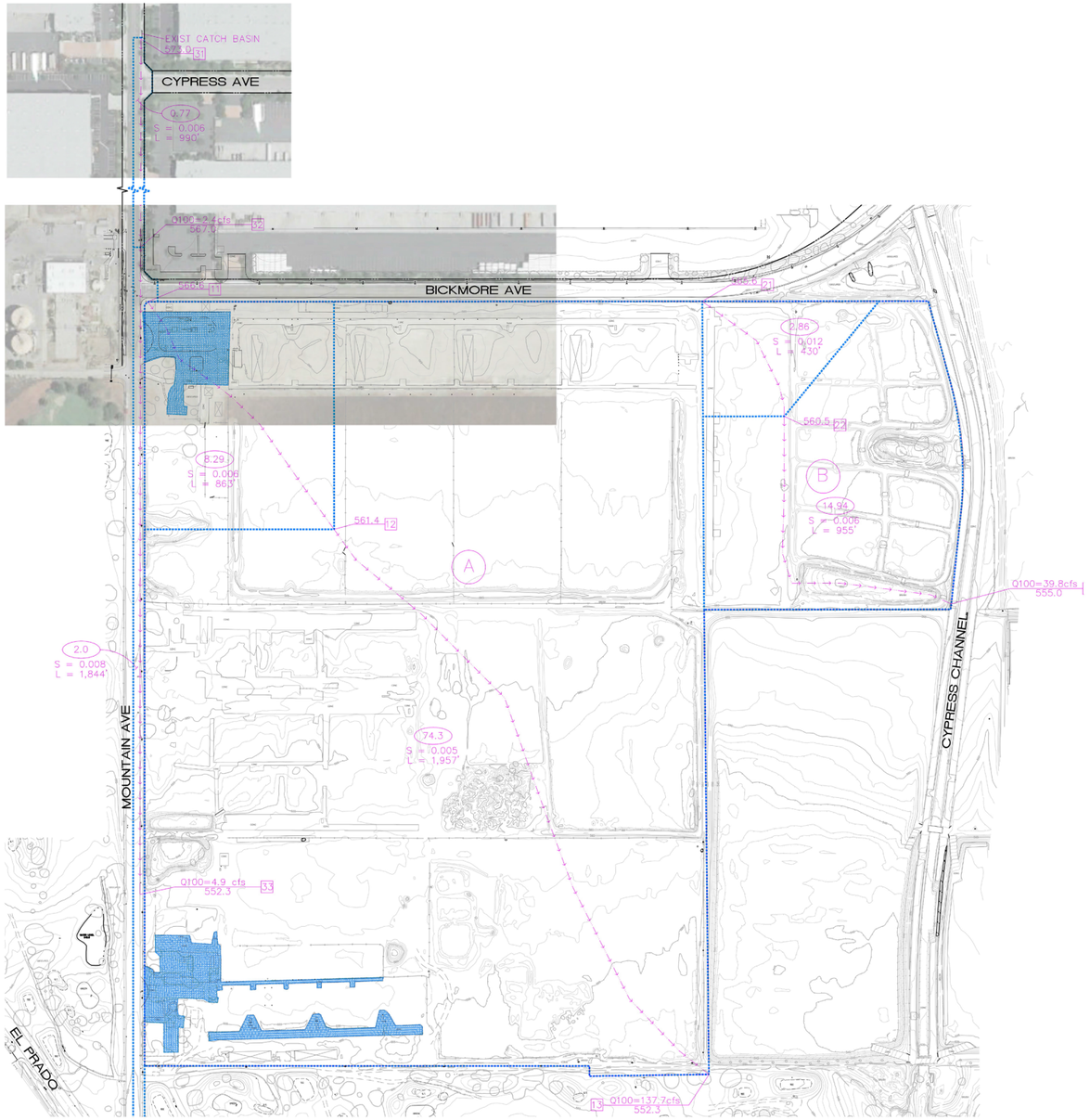


Source(s): City of Chino General Plan (July 2010)

Not to Scale

Figure 4.9-2

CITY OF CHINO GENERAL PLAN EIR EXHIBIT: 566 FOOT PRADO DAM INUNDATION AREA



LEGEND:

- Q=7.39——50 YR DISCHARGE
- 43 —NODE NUMBER
- (1.68) —SUB-AREA ACRES
- (A) —SUB-AREA DESIGNATION
- L=546 ——FLOWPATH LENGTH
- S=0.005 ——FLOWPATH SLOPE
- —SUB-AREA BOUNDARY
- —FLOWPATH
- —EXISTING IMPERVIOUS AREA

TOTAL EXISTING RUNOFF = 177.5 CFS,
TOTAL ALLOWABLE RUNOFF IN DEVELOPED CONDITION =
(0.8) * (177.5) = 142.0 CFS

Source(s): PBLA Engineering, Inc. (05-17-2019)

Not to Scale

Figure 4.9-3

EXISTING CONDITIONS HYDROLOGY MAP

C. Flooding and Dam Inundation

1. Project Site

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06071C9355H, dated August 28, 2008, the majority of the Project Site is located within FEMA Flood Zone D and a very small sliver of the southwest corner of the Project Site is located within FEMA Flood Zone AE. Flood Zone D is correlated with areas where "flood hazards are undetermined, but possible" and Flood Zone AE areas are areas within a 100-year floodplain. The FEMA FIRM for the Project Site is depicted on Figure 4.9-4, *FEMA Flood Insurance Map Panels.*

2. Excess Fill Dirt Site Nos. 1 through 5

According to the FEMA FIRM No. 06071C9335H, dated August 28, 2008, Excess Fill Dirt Site Nos. 1 and 3 are located within FEMA Flood Zones D and AE. The entire Excess Fill Dirt Site No. 2 is located within FEMA Flood Zone D. According to the FEMA FIRM No. 06071C9375H, dated August 28, 2008, Excess Fill Dirt Site No. 4 is located within FEMA Flood Zones D and AE, and Excess Fill Dirt Site No. 5 is located within Zones X and AE. Zone X is correlated with having a 0.2% annual chance flood hazard. (FEMA, 2008) The FEMA FIRM that covers the locations of the excess fill dirt sites is depicted on Figure 4.9-4.

D. Water Quality

The Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act, CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. The Project Site's receiving waters include the Chino Creek (Reaches 1A and 1B) and the Santa Ana River (Reach 3). The Chino Creek Reach 1A (indicator bacteria, nutrients), Chino Creek Reach 1B (indicator bacteria, chemical oxygen demand), and Santa Ana River Reach 3 (copper indicator, bacteria, and lead) are listed on the Section 303(d) list of the CWA as having water quality impairments. (PBLA, 2020, p. 3-4)

No water quality pollutants of concern are known to be located on the Project Site or excess fill dirt sites. The professional environmental firm SCS Engineers collected and tested soil samples from the properties in 2019 and did not observe any signs of pesticide use, storage, or mismanagement on the Project Site or excess fill dirt sites associated with the former uses. Refer to EIR *Technical Appendix I7* for soil testing results. None of the soil samples conducted by SCS contained concentrations of organochloride pesticides (OCPs) or heavy metals exceeding regulatory soil screening criteria (SCS, 2019b, p. 3). Only trace amounts of pesticides in the soils of former agricultural areas are present.

E. Groundwater

The City of Chino is underlain by groundwater resources associated with the Chino Groundwater Basin. The City of Chino's Water Utility relies on groundwater resources from this groundwater basin for a portion of its total water supply. According to the Chino Basin Watermaster, groundwater elevations beneath the Project Site and Excess Fill Dirt Site Nos. 1 through 5 occur at elevations at approximately 550 feet AMSL, indicating

that the groundwater table occurs approximately 90 to 120 feet below the ground surface (CBWM, 2019a, Exhibit 4-4).

4.9.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws, related regulations, and plans related to hydrology and water quality.

A. Federal Plans, Policies, and Regulations

1. Rivers and Harbors Act of 1899; U.S. Army Corps of Engineers Civil Works Program

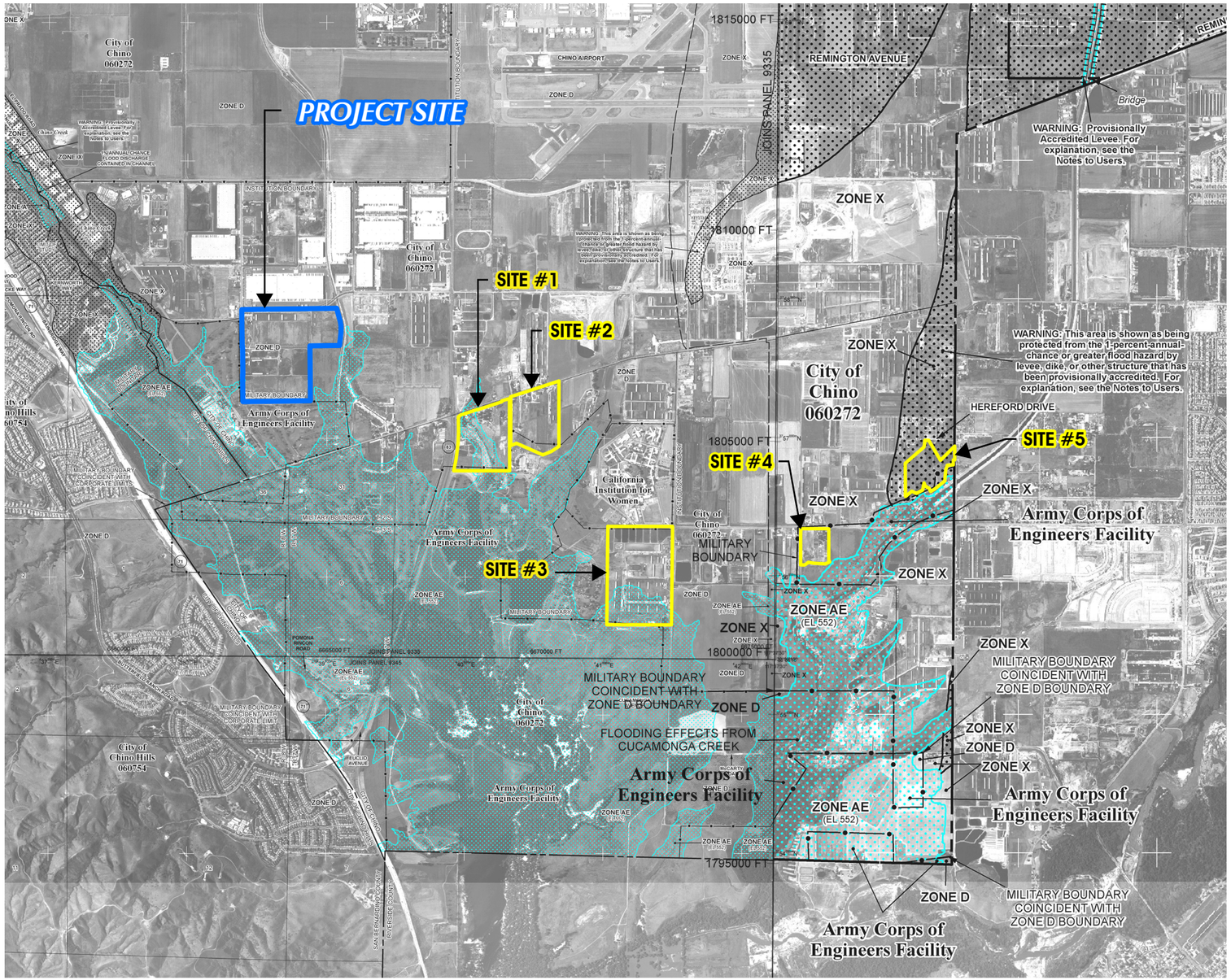
Through the Civil Works program, the U.S. Army Corps of Engineers (USACE) has constructed many Civil Works projects across the nation. One of these is the Prado Dam on the lower Santa Ana River. In order to ensure that projects such as these continue to provide their intended benefits to the public, The U.S. Congress mandated that any use or alteration of a Civil Works project by another party is subject to the approval of USACE. This requirement was established in Section 14 of the Rivers and Harbors Act of 1899, which has since been amended several times and is codified at 33 USC 408 (Section 408). Section 408 provides that the USACE may grant permission for another party to alter a Civil Works project upon a determination that the alteration proposed will not be injurious to the public interest and will not impair the usefulness of the Civil Works project. (USACE, 2019b)

2. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2019d)

3. Federal Flood Insurance Program

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% 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% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

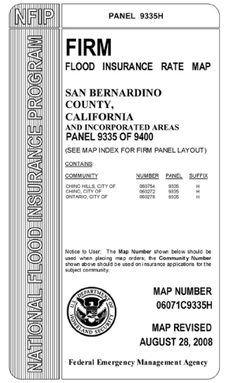
* Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 — 23	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
4276000mN	1000-meter Universal Transverse Mercator grid values, zone 11N
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone V (FIPSZONE 0405), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
●M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
March 18, 1996

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
August 28, 2008 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.


NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 9335H

FIRM
FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 9335 OF 9400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

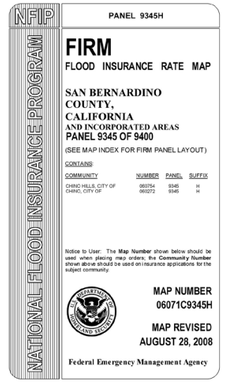
COMMUNITY	NUMBER	PANEL	SUFFIX
CHINO HILLS, CITY OF	060754	9335	H
CHINO, CITY OF	060272	9335	H
ONTARIO, CITY OF	060278	9335	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06071C9335H

MAP REVISED
AUGUST 28, 2008

Federal Emergency Management Agency


NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 9345H

FIRM
FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 9345 OF 9400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

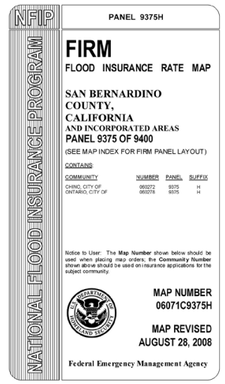
COMMUNITY	NUMBER	PANEL	SUFFIX
CHINO HILLS, CITY OF	060754	9345	H
CHINO, CITY OF	060272	9345	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06071C9345H

MAP REVISED
AUGUST 28, 2008

Federal Emergency Management Agency


NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 9375H

FIRM
FLOOD INSURANCE RATE MAP

SAN BERNARDINO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 9375 OF 9400

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
CHINO, CITY OF	060272	9375	H
ONTARIO, CITY OF	060278	9375	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06071C9375H

MAP REVISED
AUGUST 28, 2008

Federal Emergency Management Agency

Source(s): FEMA (08-28-2008)

Not to Scale

Figure 4.9-4

FEMA FLOOD INSURANCE MAP PANELS

Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The Federal Insurance and Mitigation Administration (FIMA) within the Federal Emergency Management Agency (FEMA) is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that provide assistance for mitigating future damages from natural hazards. (FEMA, 2002)

4. Executive Order 11988 – Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: (FEMA, 2015)

- acquiring, managing, and disposing of federal lands and facilities;
- providing federally-undertaken, financed, or assisted construction and improvements; and
- conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

B. State Plans, Policies, and Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014a)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual

permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014a)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) are adopted by each of the Regional Water Boards and are periodically updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014a) The Project Site, excess fill dirt sites, and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principal State law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 – 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB); water supply and wastewater treatment agencies; and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016)

4. CDFG Code Section 1600 et seq. (Lake or Streambed Alteration Agreement Program)

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake. (CDFW, 2019a)

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a water body. (CDFW, 2019a)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, 2019a)

5. Watershed Management Initiative (WMI)

The State and Regional Water Boards consider entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further this objective. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, 2017) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds.

- Involve stakeholders to develop solutions.
- Better coordinate point source and nonpoint source regulatory efforts.
- Establish working relationships between staff from different programs.
- Better coordinate local, State, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, 2017)

6. Sustainable Groundwater Management Act (SGMA)

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. The DWR categorizes the priority of groundwater basins. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. The SGMA also requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed road maps for how groundwater basins will reach long term sustainability. (DWR, n.d.)

C. Local Plans, Policies, and Regulations

1. City of Chino Municipal Code

Chapter 13.25 (Storm Water Drainage System Regulations) of the City of Chino Municipal Code requires the City to participate as a "Co-permittee" under the NPDES permit program to accomplish the requirements of the CWA. Pursuant to this chapter, the City is required to participate in the improvement of water quality and comply with federal requirements for the control of urban pollutants to stormwater runoff. (Chino, 2019)

In accordance with City of Chino Municipal Code Section 19.07.140, development proposals are required to ensure that on-site areas are protected, at a minimum, from flooding during peak storm events (i.e., 100-year storm) and that downstream areas are not exposed to increased flooding risks during peak storm events. Development proposals are required to prepare hydrologic and hydraulic calculations and studies to demonstrate that proposed grading and development will not result in flooding risks on-site or downstream. The hydraulic calculations and studies shall be subject to the review and approval of the City's engineer. In addition, City of Chino Municipal Code Section 19.07.140 requires all grading and improvements be designed to prevent undue soil erosion or sedimentation. (Chino, 2019)

Lastly, the City of Chino Municipal Code (§ 19.09.030) requires development projects to incorporate an erosion and dust control plan into proposed clearing/grubbing, stockpile, grading, or demolition activities to minimize water- and windborne erosion. Specific dust control measures and a schedule for implementation are required to be listed on the grading/construction plan as well as the name and contact information of the person responsible for carrying out the dust control measures. The erosion and dust control plan is required to be approved by City of Chino staff prior to the issuance of the applicable construction permit. (Chino, 2019)

4.9.3 Basis for Determining Significance

The proposed Project would result in a significant impact to hydrology and/or water quality if the Project or any Project-related component would:

a. *Violate any water quality standards or water discharge requirements or otherwise substantially degrade surface or groundwater quality;*

b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;*

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

   i. *Result in substantial erosion or siltation on- or off-site;*

   ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;*

   iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*

   iv. *Impeded or redirect flood flows.*

d. *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation; or*

e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to hydrology and water quality that could result from development projects.

4.9.4 Impact Analysis

Threshold a:	***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

A. Construction-Related Water Quality Impacts

1. Project Site

Development of the Project Site would involve clearing and soil import activity from up to five excess fill dirt sites, in addition to grading, paving, utility installation, building construction, landscaping and related construction-related activities on the Project Site. These activities would result in potential water quality pollutants such as silt, debris, organic waste, trace amounts of existing soil pesticides, construction equipment substances, chemicals, concrete, paints, and other building materials and solvents with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during Project-related construction activities in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Chino Municipal Code Chapter 13.25, the Project Applicant or successor in interest would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least 1.0 acre of total land area. In addition, construction contractors working on the Project Site would be required to comply with the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program ("Basin Plan"). Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP would specify the Best Management Practices (BMPs) that would be required to be implemented during construction activities to ensure that potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydroseeding. Pursuant to Chino Municipal Code § 19.09.030, the Project Applicant or successor in interest also would be required to assure that the Project's construction contractors implement an erosion and dust control plan on the Project Site and each of the excess fill dirt sites during ground disturbing activities to minimize water- and wind-borne erosion. Mandatory compliance with the SWPPP and the erosion and dust control plan required by the City of Chino would ensure that the Project's construction activities do not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

2. Excess Fill Dirt Site Nos. 1 through 5

Temporary soil excavation and other earthwork activities would occur at up to five excess fill dirt sites over the approximate time durations given on Table 3-1, *Construction Schedule*, in EIR Section 3.0. The Project Applicant expects that all fill dirt required for the Project will be obtained from Excess Fill Dirt Site Nos. 1, 3, and 4; however, in the event that Excess Fill Dirt Sites 1, 3, and 4 do not produce the expected quantities of the dirt needed to develop the Project Site, additional fill dirt may be obtained from Excess Fill Dirt Site Nos. 2 and/or 5 and/or another nearby site(s) that has all necessary environmental clearances for the export of earth materials.

As would occur at the Project Site, earthwork activities on the excess fill dirt sites would be subject to compliance with the requirements of the Santa Ana RWQCB, the Santa Ana River Basin Plan, and Chino Municipal Code Chapter 13.25, including the requirements to prepare a SWPPP and erosion and dust control plan for all construction-related activities. The future-required SWPPP and erosion and dust control plan would identify various erosion control measures and other BMPs that would be implemented during and after grading operations. Examples of BMPs that may be utilized on the excess fill dirt sites during earthwork activities include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, and sediment traps. At the completion of earthwork activities on the excess fill dirt sites, the disturbed areas would be hydroseeded to stabilize the soils with the purpose of precluding any measurable erosion or related water quality sedimentation or other water quality impairments. (PBLA, 2019b) Accordingly, with mandatory compliance to regulatory requirements, water quality impacts associated with construction activities on the excess fill dirt sites would be less than significant and no mitigation measures would be required.

B. Post-Development Water Quality Impacts

1. Project Site

Stormwater pollutants that may be produced at the Project Site under post-development conditions as part of operational activities for the Project's two proposed industrial buildings include pathogens (bacterial/virus), nutrients (phosphorous and nitrogen), sediments, metals, oil/grease, trash/debris, and pesticides/herbicides (PBLA, 2020, p. 2-3). Development projects in the City of Chino are required to comply with National Discharge Elimination System (NPDES) Permit requirements applicable to Chino, which fall under the Santa Ana RWQCB's Order No. R9-2010-0036, NPDES No. CAS618036 (SARWQCB, 2010) for the San Bernardino County Flood Control District, the County of San Bernardino, and the incorporated cities of San Bernardino County that fall within the Santa Ana Region.

To meet the requirements of the City of Chino's NPDES permit and in accordance with Chino Municipal Code Section 13.25.500, the Project Applicant or successor in interest would be required to prepare and implement a Water Quality Management Plan (WQMP), which is a site-specific post-construction water quality management program that would identify BMPs to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. Implementation of the required WQMP would ensure on-going, long-term protection of the watershed basin. The Project's Preliminary WQMP, prepared by PBLA, is included as *Technical Appendix K* to this EIR. As identified in *Technical Appendix K*, the Project is designed to include on-site structural source control BMPs consisting of a water quality basin and bioswales. Operational source control BMPs also would be implemented, including but not limited to: the installation of water-efficient landscape irrigation systems; storm drain system stenciling and signage; and implementation of a trash and waste storage areas. These measures are designed to minimize, prevent, and/or otherwise appropriately treat stormwater runoff flows before they are discharged into the City's storm drain system. (PBLA, 2020, pp. 4-2 through 4-5) Compliance with the WQMP would be required by the City as a condition of approval for the Project. Long-term maintenance of on-site water quality features, as described in the Preliminary WQMP, also would be required by the City of Chino as a condition of Project approval to ensure the long-term effectiveness of all on-site water quality features and maximize pest management (particularly mosquito control).

In addition to mandatory implementation of a WQMP, the NDPES program also requires certain land uses, including the two industrial building uses proposed by the Project Applicant (which are considered "industrial activities" for purposes of NDPES applicability), to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The updated Industrial General Permit, which is more stringent than the former Industrial General Permit, became effective on July 1, 2015, and expires on June 30, 2020. It is expected that the next version of the Industrial General Permit will be even more stringent than the current version based on the State Water Board's action taken in November 2018 that amended the General Permit to incorporate additional requirements that will become effective on July 1, 2020. (SWRCB, 2018) Under the currently effective NPDES Industrial General Permit and the Amendments thereto that will become effective July 1, 2020, the Project Applicant would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and

monitoring program or receive an exemption. (SWRCB, 2014b) All NPDES permits will require analytical test methods that measure and quantify pollutants at levels identified in the NPDES permit requirements (SWRCB, 2018).

Because the NPDES permit is dependent upon a detailed accounting of all operational activities and procedures, and the precise operational details of the proposed Project's industrial buildings are not known at this time, details of the operational SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined at this time. However, based on the requirements of the NPDES Industrial General Permit, it is reasonably assured that mandatory compliance with all applicable regulations by the Project Applicant, its successors in interest and operators of the Project Site would sufficiently reduce potential water quality impacts during the Project's long-term operation.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long-term operation. Impacts would be less than significant.

2. Excess Fill Dirt Site Nos. 1 through 5

As part of the SWPPP(s) and erosion and dust control plan(s) required for grading activities, grading on Excess Fill Dirt Site Nos. 1 through 5 would occur in a manner that does not detain or impound water. The areas of the excess fill dirt sites that would be disturbed as part of the Project's construction activities would be hydroseeded and returned to a pervious, vacant state. (PBLA, 2019b) Following construction operations, no operational activities associated with the proposed Project would occur at any of the excess fill dirt sites. As such, under long-term conditions the excess fill dirt sites would have no potential to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. No impact would occur.

Threshold b:	***Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

The Project would be served with potable water from the City of Chino, and the Project Applicant does not propose the use of any wells or other groundwater extraction activities on the Project Site or any of the excess fill dirt sites. Therefore, the Project would not directly draw water from the groundwater table. Accordingly, implementation of the proposed Project has no potential to substantially deplete or decrease groundwater supplies and the Project's impact to groundwater supplies would be less than significant.

Development of the Project would increase impervious surface coverage on the Project Site, which would, in turn, reduce the amount of water percolating down into the underground aquifer that underlies the Project Site and underlies a majority of the City of Chino and surrounding areas. However, a majority of the groundwater recharge in the Chino Basin occurs in the northern portion of the Basin, north of the City of Chino, within percolation basins located throughout San Bernardino County (Chino, 2010b, p. 4.8-13). The Project Site and Excess Fill Dirt Site Nos. 1 through 5 are located in the southern portion of the Chino Groundwater Basin and would not physically impact any of the major groundwater recharge facilities in the Basin and, therefore would

not result in substantial, adverse effects to local groundwater levels (CBWM, 2019a, Exhibit 1-1). Additionally, the Project would entail the installation of a water quality basin and permeable landscape areas on the Project Site to maximize the direct percolation of on-site storm water runoff into the Chino Basin. Accordingly, buildout of the Project Site with these design features would not interfere substantially with groundwater recharge or impede sustainable groundwater management of the Chino Basin. The Chino Groundwater Basin is an adjudicated basin, and adjudicated basins are exempt from the 2014 Sustainable Groundwater Management Act (SGMA) because such basins already operate under a court-ordered water management plan. As such, the Chino Basin is expressly included in the SGMA's list of exempt basins. (CBWM, 2019b)

Temporary construction activities at Excess Fill Dirt Site Nos. 1 through 5 would involve excavation and export of soil, with the disturbed areas hydroseed upon completion. No impervious surfaces would be introduced on the excess fill dirt sites, and the excess fill dirt sites would be returned to a hydroseeded, pervious state following grading and soil export activities. Thus, the exuviation and export of fill dirt from Excess Fill Dirt Site Nos. 1 through 5 would have no adverse impact on groundwater recharge either during or after completion of construction activities.

For the reasons stated above, the Project would not substantially decrease or deplete groundwater supplies, interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume, lower the local groundwater table level, cause an impartment to sustainable groundwater management, or conflict with or obstruct the implementation of a sustainable groundwater management plan. Impacts would be less than significant.

Threshold c:	***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:***
	i. Result in substantial erosion or siltation on- or off-site?
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
	iii. Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
	iv. Impede or redirect flood flows?

Implementation of the Project would alter the existing ground contours of the Project Site and introduce impervious surfaces, which would change the Site's existing, on site drainage patterns. A majority of the developed Site's storm water would continue to flow towards the southeastern portion of the Project Site as it does under existing conditions. The Project would include the installation of an integrated, on-site system of catch basins and underground storm drain pipes to capture on-site stormwater runoff flows, convey the runoff across the site, treat the runoff to minimize the amount of water-borne pollutants carried from the Project Site in an off-site storm drain line, and outlet at the Cypress Channel. The Project's on-site storm drain system is designed to collect, treat, and temporarily detain on-site stormwater runoff before discharging treated flows

off-site. Specifically, "first flush" flows (i.e., typically the first ¾-inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be diverted to the Site's water quality/detention basin for treatment. During peak storm events, the basin also would temporarily detain stormwater runoff on-site and would control the release of stormwater flows from the Project Site. From the water quality/detention basin, stormwater runoff flows would be discharged to a proposed private underground storm drain line that is proposed to extend off-site, extending from the southeastern corner of the Project Site to a new outlet installed in an existing headwall at the terminus of the concrete-line Cypress Channel. Figure 4.9-5, *Proposed Post-Development Hydrology Map*, illustrates the post-development drainage conditions on the Project Site.

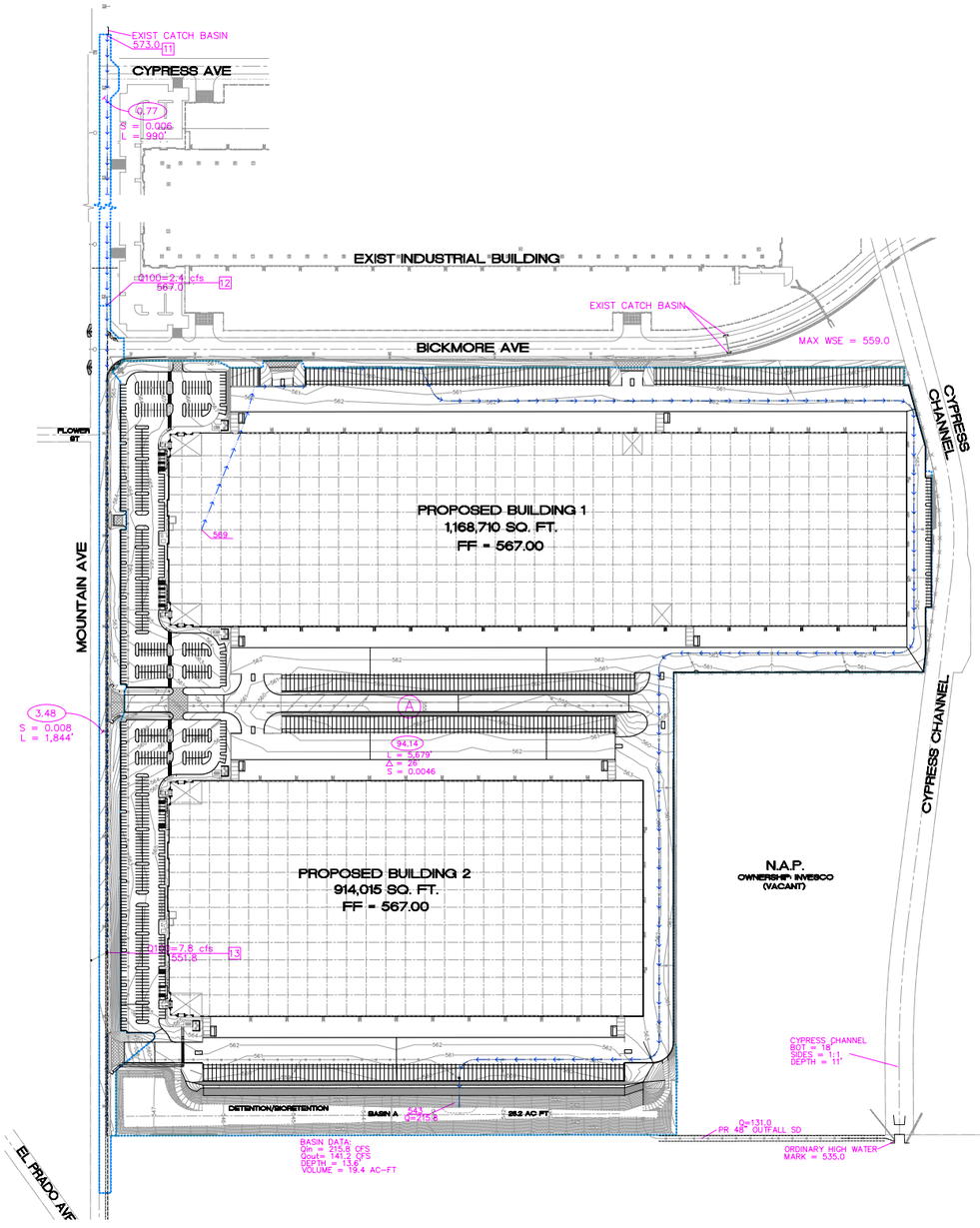
At Excess Fill Dirt Site Nos. 1 through 5, stormwater runoff flows after the proposed soil excavation and export activities would generally follow the same pattern as existing conditions, as shown on Figure 3-15 through Figure 3-19 in EIR Section 3.0, *Project Description* (PBLA, 2019b). No impervious surfaces would be introduced on the excess fill dirt sites, as the excess fill dirt sites would be hydroseeded and returned to a pervious condition following grading and soil export activities.

Excavations would occur on approximately 28.6 acres of Excess Fill Dirt Site No. 1, with the drainage course that bisects the site left mostly untouched. Proposed earthwork cuts would range from depths of one foot or less to approximately 15 feet below the existing ground surface. The conceptual grading plan provides a gentle gradient toward the center of the site (as occurs under existing conditions) to the existing drainage course that bisects the site. Manufactured slopes, with a gradient of 4:1, would occur along portions of the northern, western, and eastern boundaries of Excess Fill Dirt Site No. 1. Excess Fill Dirt Site No. 1 will free flow and will not detain or retain stormwater runoff during normal storm events.

Excavations would occur on approximately 20.8 acres of Excess Fill Dirt Site No. 2, on the northern and western portions of the site. Proposed earthwork cuts range from depths of one foot or less to approximately five feet below the existing ground surface. The conceptual grading plan provides excavations that slightly deepen/exaggerate the site's existing north-to-south gradient during excavations and does not include any manufactured slopes. Excess Fill Dirt Site No. 2 is designed to free flow and will not detain or retain stormwater runoff during normal storm events.

Excavations would occur on approximately 32.0 acres of Excess Fill Dirt Site No. 3. The conceptual grading plan calls for excavations on the northern and central portions of the site with proposed earthwork cuts ranging from depths of one foot or less to approximately 11 feet below the existing ground surface. Under existing conditions, the topography of Excess Fill Dirt Site No. 3 gradually slopes from the north (high point) to the south (low point). The conceptual grading plan provides a gradual north to south gradient and storm water will free flow and will not be detained during normal storm events.

Excavations would occur across the 12.9-acre Excess Fill Dirt Site No. 4. The conceptual grading plan calls for excavations to daylight in the southern portion of the site, with some limited grading on adjacent USACE land to the south to facilitate surface drainage toward the USACE-owned Mill Creek Wetlands property, which



LEGEND:

Q=7.39——100 YR DISCHARGE
ΣQ=11.39——SUMMATION OF Q AT NODE
P=235——PIPE LENGTH TO NEXT NODE
43 —NODE NUMBER
(A) —SUB-AREA DESIGNATION
(1.68) —SUB-AREA ACRES
L=546 ——FLOWPATH LENGTH
—— —— —SUB-AREA BOUNDARY
—— ←—FLOWPATH

TOTAL EXISTING RUNOFF = 177.5 CFS,
TOTAL ALLOWABLE RUNOFF IN DEVELOPED CONDITION =
(0.8) * (177.5) = 142.0 CFS

Source(s): PBLA Engineering, Inc. (11-01-2019)

Not to Scale

Figure 4.9-5

PROPOSED POST-DEVELOPMENT HYDROLOGY MAP

is adjacent to the southern boundary of Excess Fill Dirt Site No. 4. Proposed earthwork cuts range from depths of one foot or less to approximately 12 feet below the existing ground surface. The conceptual grading plan provides a gradual north to south gradient. Manufactured slopes with a 2:1 gradient would occur along the northern, eastern, and western boundaries of Excess Fill Dirt Site No. 4 with the slopes set back by a minimum of 20 feet from the northern, eastern, and western boundaries of Excess Fill Dirt Site No. 4. Upon completion of excavations, Excess Fill Dirt Site No. 4 would have a basin-like appearance due to the manufactured slopes along its northern, western, and eastern edges but the site is designed to sheet flow and not detain or retain stormwater runoff during normal storm events.

Excavations would occur across the 21.3-acre Excess Fill Dirt Site No. 5. Proposed earthwork cuts range from depths of one foot or less to approximately seven feet below the existing ground surface. The conceptual grading plan provides a gentle gradient toward the south. Manufactured slopes, with maximum gradients of 2:1, would occur along portions of the northern, southern, western, and eastern boundaries of Excess Fill Dirt Site No. 5. Excess Fill Dirt Site No. 5 is designed to free flow and will not detain or retain stormwater runoff during normal storm events.

The following analysis evaluates the potential for Project-related construction or operational activities to alter drainage patterns in any way that would result in erosion or sedimentation, cause flooding, exceed the capacity of an existing or planned drainage system, provide additional sources of polluted runoff, or impede or redirect flood flows.

A. Erosion, Siltation, and Runoff Water Quality

1. Project Site

Although the Project's implementation would alter the Project Site's interior drainage patterns, such changes would not result in substantial erosion, siltation, or the discharge of polluted runoff on- or off-site. Erosion, sedimentation, and water quality degradation potential during the Project's construction are discussed above under Threshold "b". In summary, mandatory compliance with City of Chino Municipal Code Chapter 13.25 requires the Project Applicant or successor in interest to obtain a NPDES Municipal Stormwater Permit for construction activities. Also, mandatory compliance to the RWQCB's Santa Ana River Basin Plan requires the preparation and implementation of a SWPPP for construction-related activities. With mandatory compliance to these regulatory requirements, erosion, sedimentation, and water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

During operation of the Project, the potential for erosion and siltation at the Project Site would be reduced compared to existing conditions because the Project would introduce impervious surfaces on the Site that would limit erosion potential, and would direct storm water into a stormwater drainage system. Additionally, the Project Applicant or successor in interest would be required to prepare and implement a WQMP, which is a site-specific post-construction water quality management program that is required to identify an effective combination of erosion control and sediment control measures and protective water quality measures (i.e., BMPs) to reduce or eliminate sediment and water pollutant discharges to surface water from stormwater and non-stormwater discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term water quality protection. Compliance with the WQMP is

required pursuant to Chino Municipal Code Section 13.25.500. The preliminary WQMP for the Project is provided as *Technical Appendix K* to this EIR.

Because the Project's owners and operators would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil at the Project site, the Project would result in less-than-significant impacts related to soil erosion and siltation on the Site. Additionally, runoff from the Project Site is expected to decrease from 177.5 cfs under existing conditions to 131 cfs following site development and implementation of the Project's drainage system, and the discharge point is at the concrete-lined Cypress Channel; therefore, there would be no increase in runoff from the Project site following development that could cause or contribute to erosion hazards downstream, and impacts would be less than significant (PBLA, 2019a, p. 4).

Long-term maintenance of on-site water quality features, as described in the Project's Preliminary WQMP, also would be required by the City of Chino as a condition of Project approval to ensure the long-term effectiveness of all on-site water quality features. Further, all NPDES permits will require analytical test methods that measure and quantify pollutants at levels identified in the NPDES permit requirements (SWRCB, 2018). For these reasons, it is assured that the Project's alteration of the existing on-site drainage pattern would result in the discharge of water pollutants on or off site. Impacts would be less than significant.

2. Excess Fill Dirt Site Nos. 1 through 5

As part of the SWPPP(s) and erosion and dust control plan(s) required for grading activities, Excess Fill Dirt Site Nos. 1 through 5 would be graded in a manner that does not detain or impound water and the Project's disturbance area on all five sites would be hydroseeded and returned to a vacant, natural state. As such, in the long-term there would be no increase in erosion or water pollutant potential at the excess fill dirt sites as compared to existing conditions. Impacts due to erosion, siltation, and water pollution at the excess fill dirt sites would be less than significant.

B. Flooding and Flood Flows

There are no components of the proposed Project or its stormwater drainage system that would cause flooding or impede flood flows due to an alteration of drainage patterns. The Project Site and Excess Fill Dirt Site Nos. 1 through 5 are located upstream of the Prado Dam within the Prado Dam Reservoir Area. Because the Project Site is located in the Reservoir Area (i.e., areas at or below 566 feet AMSL), the Project's construction plans call for raising the portions of the Project Site proposed to contain two industrial building footprints above 566 feet AMSL while concurrently lowering ground elevations on Excess Fill Dirt Site Nos. 1 through 5 to make up for the loss in Reservoir Area capacity. Ultimately, a net increase of approximately 190,000 cubic yards of flood capacity within the Prado Dam Reservoir Area would result from the proposed Project. Approval by the USACE would indicate that the Reservoir Area of the Prado Dam would not be adversely affected by the proposed Project.

Under existing conditions during peak storm events, the Project Site contributes a total of 177.5 cubic feet per second (cfs) of off-site flow, of which 137.7 cfs sheet flow off-site to the El Prado Golf Course and 39.8 cfs sheet flow to the Cypress Channel. Upon Project buildout, the Project Site would contribute a total of 131 cfs

of off-site flow. The overall reduction in the amount of runoff from the Project Site are due to the proposed installation of stormwater and water quality infrastructure on the Project Site (i.e., water quality basin) that detains peak flows. All of the 131 cfs would discharge into the Cypress Channel. Runoff from the western portions of the Project Site would no longer sheet flow to the El Prado Golf Course. (PBLA, 2019a, p. 4, Appendices A and B) . The stormwater outlet is proposed to be installed in an existing concrete headwall at the Cypress Channel, east of the Project Site. The sides of the Channel are trapezoidal and concrete-lined to control flood events. Due to the reduction in the volume of peak stormwater runoff leaving the Project Site, and the existing design of the Cypress Channel to accommodate the planned volume of stormwater flow, implementation of the Project would not substantially increase the rate or amount of surface water runoff from the site in a manner that would result in flooding on- or off-site; impacts would be less than significant.

At the excess fill dirt sites, water would be discharged at no greater rates or volumes than occurs under existing conditions. According to PBLA, the Project Applicant's civil engineer, runoff leaving the excess fill dirt sites are designed to generally follow the same pattern as existing conditions and runoff rate and volume are designed to effectively be the same as existing conditions (PBLA, 2019b). Thus, the Project has no potential to cause flooding associated with excavating and exporting soils at Excess Fill Dirt Site Nos. 1 through 5.

C. Stormwater Drainage System Capacity

As described above, implementation of the Project would reduce the amount of runoff from the Project Site from 177.5 cfs to 131 cfs, and all runoff would be conveyed to the Cypress Channel. Although runoff from the Project Site tributary to the Cypress Channel would increase relative to existing conditions (i.e., from 39.8 cfs to 131 cfs), the Cypress Channel is a concrete-lined drainage facility that has adequate capacity to accommodate the increased rate of runoff from the Project site. Additionally, the Cypress Channel outlets to the El Prado Golf Course, and the rate of runoff tributary to the El Prado Golf Course (i.e., all site runoff) would be reduced from 177.5 cfs to 131 cfs. In addition, the excess fill dirt sites would generate the same amount of runoff as compared to existing conditions, and therefore have no potential to exceed the capacity of any existing or planned stormwater drainage systems. (PBLA, 2019b) Accordingly, the Project would not create or contribute runoff that would exceed the capacity of any existing storm water drainage system, and impacts would be less than significant.

Threshold d: Would the Project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Pacific Ocean is located approximately 30 miles southwest of the Project Site and excess fill dirt sites; consequently, there is no potential for the Project Site nor any of the excess fill dirt sites to be impacted by a tsunami as tsunamis typically only reach up to a few miles inland. Additionally, neither the Project Site nor any of the excess fill dirt sites abut a confined water body that could be subject to seiche hazards in the event of earthquakes.

As mentioned in Threshold "c," although the Project Site is located within the Prado Dam Reservoir Area under existing conditions, upon completion of Project buildout, the Project Site's proposed industrial buildings would be elevated outside of the Reservoir Area, and therefore would not be subject to inundation during backwater holding events. The excess fill dirt sites also are located within the Reservoir Area and following

completion of Project-related soil excavation and export, portions of the excess fill dirt sites would be lower in elevation than they currently are, and hydroseeded with a native plant seed mix to stabilize each site. These sites would continue to be subject to water inundation as the result of a major storm event that may cause backwater behind the Prado Dam to collect in the Reservoir Area. There are no components of the proposed Project that would result in increased water pollutants on the excess fill dirt sites in the long-term, and during excavation activities water pollutants would be controlled by measures specified in the NPDES construction permit. There would be no release of pollutants from the excess fill dirt sites during flood events as the result of the dirt excavation and exporting proposed as part of the Project. Accordingly, the Project would not release water pollutants due to inundation nor have the potential to impact the properties with a seiche. No impact would occur.

Threshold e: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed in Threshold "a" above, the Project Site and Excess Fill Dirt Sites Nos. 1 through 5 are located within the Santa Ana River Basin and Project-related construction and operational activities would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* ("Basin Plan") by preparing and adhering to a SWPPP and WQMP and by installing and maintaining BMPs. Implementation of the Project would not conflict with or obstruct the Basin Plan and impacts would be less than significant.

The Project Site and Excess Fill Dirt Sites Nos. 1 through 5 are located within the southern portion of the Chino Groundwater Basin, which is adjudicated under the 1969 Western-San Bernardino Judgment. Adjudicated basins, like the Chino Groundwater Basin are exempt from the 2014 Sustainable Groundwater Management Act (SGMA) because such basins already operate under a court-ordered management plan to ensure the long-term sustainability of the Chino Groundwater Basin. (CBWM, 2019a) No component of the Project would obstruct with or prevent implementation of the management plan for the Chino Groundwater Basin. As such, the Project's construction and operation would not conflict with any sustainable groundwater management plan. Impacts would be less than significant.

4.9.5 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project Site, Excess Fill Dirt Sites Nos. 1 through 5, and projects located in the Santa Ana River Basin and Chino Groundwater Basin.

A. Water Quality

Project construction and the construction of other projects in the cumulative study area would have the potential to contribute waterborne pollution, including erosion and siltation, to the Santa Ana River Watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb 1.0 or more acres of land area are required to obtain coverage for construction activities under the State's General Construction NPDES Permit. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented. The SWPPP must identify potential on-site pollutants and identify an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface waters. In addition, the Project Applicant and the applicants of all cumulative

developments in the Santa Ana River Basin would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*, which establishes water quality standards for ground and surface waters of the region. Compliance with these mandatory regulatory requirements would ensure that development projects within the Santa Ana River watershed, including the proposed Project, would not contribute substantially to water quality impairments during construction. Cumulatively-considerable impacts would be less than significant.

Operational activities on the Project Site would be subject to compliance with the Project's WQMP to minimize the amount of waterborne pollution, including erosion and sediment, discharged from the site. Other development projects within the watershed would similarly be required by law to prepare and implement site-specific WQMPs to ensure that runoff does not substantially contribute to water quality violations. Accordingly, operation of the Project would not contribute to cumulatively-considerable water quality effects.

B. Groundwater Supplies and Management

A majority of the groundwater recharge in the Chino Groundwater Basin occurs in the northern and western portions of the Basin within percolation basins ("recharge basins"). The Project would not physically impact any of the major groundwater recharge facilities in the Basin and other development projects in the Basin similarly would be prohibited by the Chino Basin Watermaster from resulting in adverse physical effects to recharge basins. The Project incorporates permeable landscape areas that would allow surface runoff to infiltrate into the groundwater basin. Other development projects would similarly be required to incorporate design features (e.g., through minimum landscaped area requirements and site-specific WQMP requirements) that facilitate percolation. Lastly, the Chino Groundwater Basin is an adjudicated basin that operates under a court-ordered management plan to ensure the long-term sustainability of the Basin. No component of the Project would obstruct with or prevent implementation of the Basin's management plan and other development projects within the Basin would be prohibited from any activity that would endanger the health and sustainability of the groundwater basin. Based on the lack of impacts to groundwater recharge facilities, the provision of design measures that would facilitate percolation, and compliance with the Basin's groundwater management plan, the Project and cumulative developments would not result in a considerable, adverse effect to local groundwater supplies.

C. Flooding

Construction of the Project and other development projects within the Santa Ana River Basin would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and applicable drainage plans would require development sites to be protected from flooding during peak storm events (i.e., 100-year storm) and also would not allow development projects to expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Santa Ana River Basin would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City/County Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold "c," the Project is designed to ensure that runoff from the Project Site during peak storm events is reduced relative to existing conditions and runoff from the excess fill dirt sites would be the same as their existing conditions. Because the Project and all other

developments throughout the Santa Ana River Basin would need to comply with federal, State, and local regulations to ensure that stormwater discharges do not substantially exceed existing volumes or exceed the volume of available conveyance infrastructure, a substantial cumulatively-considerable impact related to increased downstream flood hazards would not occur.

Additionally, upon Project buildout, the Project Site's industrial building areas would be elevated outside of the Prado Dam Reservoir Area and the excess fill dirt sites would lower in elevation to maintain the flood storage capacity of the Reservoir Area in the event of rare, extreme storm events. Other development within the Reservoir Area similarly would be required to maintain the flood storage capacity as required by the USACE. Accordingly, the Project would have no potential to impede or redirect flood flows and a cumulatively-considerable impact would not occur.

4.9.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a NPDES Permit, SWPPP and WQMP, as well as compliance with City of Chino Municipal Code Chapter 13.25, are required as part of the Project's implementation to address construction- and operational-related water quality.

Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Chino Groundwater Basin. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Basin.

Threshold c: Less-than-Significant Impact. The Project's construction and operational activities would be required to comply with applicable water quality regulatory requirements to minimize erosion, siltation, and water quality pollutants. Additionally, the Project would not result in flooding and would not adversely affect the capacity of the Prado Dam Reservoir Area that would impede or redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Threshold d: No Impact. The Project Site and excess fill dirt sites would not be subject to inundation from tsunamis, seiches, or other hazards. The capacity of the Prado Dam Reservoir Area would be improved as a result of the Project.

Threshold e: Less-than-Significant Impact. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.10 LAND USE AND PLANNING

This Subsection discusses the Project's consistency with applicable land use and planning policies adopted by the City of Chino and other governing agencies for the purpose of reducing adverse effects on the environment. Information used to support the analysis in this Subsection was obtained primarily from the City of Chino General Plan (Chino, 2010a), City of Chino Zoning Ordinance (Chino, 2019), Southern California Association of Governments (SCAG) *Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* (SCAG, 2016), and the City of Chino Climate Action Plan (CAP) (Chino, 2013). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.10.1 EXISTING CONDITIONS

A. Existing Land Use and Development

Refer to Section 2.0, *Environmental Setting*, for a description of existing uses on the Project Site, excess fill dirt sites, the Project's off-site improvement areas, and in the surrounding area. In summary, the Project Site is vacant and owned by the Orange County Flood Control District, but was previously used for commercial dairy farm operations that ceased between 2013 and 2014. All structures associated with the former dairy operations have since been demolished but remnants of the former dairy activities (e.g., concrete pads/foundations) are still present on portions of the Project Site, as are several water detention basins and a pond containing vegetation and trash. The five excess fill dirt sites also were formerly used as commercial dairy operations and are currently owned by the Orange County Flood Control District. Excess Fill Dirt Site No. 1 is primarily vacant except for overhead power lines on support structures that cross the property and a few residential structures in the northeast corner of the property which are slated for removal. Excess Fill Dirt Site No. 2 also is primarily vacant except for overhead power lines that cross the property. Excess Fill Dirt Site Nos. 3 through 5 are vacant and undeveloped. The Project's off-site storm drain improvement area is vacant, with the easterly outlet into the terminus of the concrete-lined Cypress Channel. The Project Site and all five excess fill dirt sites are located in the Reservoir Area of the Prado Dam.

The Project Site is located in an area of Chino that is undergoing a conversion from historic agricultural land uses to employment-generating land uses. Bickmore Avenue abuts the Project Site on the north. North of Bickmore Avenue are multiple large warehouse buildings and immediately northwest of the Project Site (west of Mountain Avenue) is the Inland Empire Utility Agency's Regional Water Recycling Plant No. 5 (RP-5) Solids Handling Facility (SHF). Immediately south of the Project Site's most southern boundary is the Butterfield Stage Course (part of the 36-hole El Prado Golf Course facility). Mountain Avenue abuts the Project Site on the west and west of Mountain Avenue is the Butterfield Stage Course and the Inland Empire Utility Agency's Regional Water Recycling Plant No. 2 (RP-2). Immediately east of the Project Site is the Cypress Channel (abutting the northern portions of the site) and a stormwater detention basin (abutting the southern portions of the Project Site). Farther east, and beyond the Cypress Channel, are warehouse buildings. The Project Site is located approximately 1.6 miles in direct linear distance southwest of the nearest runway at the Chino Airport.

4.10.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to land use and planning.

A. Federal Regulations

1. Federal Aviation Regulations Part 77

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects. (FAA, 2019)

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA (FAA, 2019):

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
    - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
    - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
    - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2019)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2019)

B. State Plans, Policies, and Regulations

1. California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66210. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures. (OPR, n.d.)

2. Subdivision Map Act

The Subdivision Map Act ("Map Act") vests in the cities and counties the power to regulate and control the design and improvement of subdivisions within its boundaries. Each city must adopt an ordinance regulating and controlling subdivisions for which the Map Act requires a tentative and final or parcel map. The authority for a city or county to regulate land use, including subdivisions, flows from the general police power. However, the Map Act sets forth certain mandates that must be followed for subdivision processing. A city can impose conditions on the subdivision process when the Map Act is silent, but it cannot regulate contrary to specific provisions contained in the Map Act. (Curtin, Jr. & Merritt, 2002, p. 1) The Map Act's primary goals are:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of the subdivision, with a proper consideration of its relation to adjoining areas;
- To ensure that the areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community; and
- To protect the public and individual transferees from fraud and exploitation. (Curtin, Jr. & Merritt, 2002, p. 1)

The Map Act is applied in conjunction with other state land use laws such as the general plan, specific plans, zoning, CEQA, and the Permit Streamlining Act. The Map Act provides for regulation of land divisions by a city or county and is interpreted and enforced by the city or county. (Curtin, Jr. & Merritt, 2002, p. 2)

3. Office of Planning and Research (OPR) General Plan Guidelines

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines is advisory, not mandatory. Nevertheless, it is the State's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for

assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017b)

4. State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. (CA Legislative Info, n.d.)

C. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The City of Chino General Plan (July 2010) is a policy document that reflects the City's vision for the future of Chino. The General Plan is organized into 12 separate elements, which contain a series of policies to guide the City's vision for future development. Each of the elements from the City of Chino General Plan are summarized below.

❑ A Healthy City

The Healthy City Element represents the City's focus on improving public health and awareness in Chino. This element contains one overarching goal regarding public health in the City, which is to "Foster Chino residents' health" (Goal HC-1). To achieve this goal, two primary objectives and corresponding actions and/or policies are identified, including the promotion of community health and healthy eating habits. Additionally, the Healthy City Element emphasizes the General Plan's focus on public health by identifying the health-related goals, objectives, policies, and actions in each element of the General Plan. (Chino, 2010a, Ch. 3)

❑ Land Use Element

The Land Use Element functions as a land use guide for future development in the City. It identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Land Use Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore, many of the issues and policies contained in other elements of the General Plan are linked in some degree to this element. The City's General Plan designates the Project Site for "Agriculture" (AG) and "Recreation/Open Space" (R/OS) land uses. The "AG" land use designation accommodates uses such as farming, pastures, grazing, and stables. The "R/OS" land use designation establishes open space areas for active and passive recreation. (Chino, 2010a, LU-19)

❑ Community Character

The Community Character Element guides the design of future development and on-going improvements throughout the City. This element identifies goals, objectives, policies, and actions that will preserve the City's small-town character while improving community design and public health. According to the General Plan, the City can be divided into several distinct areas that each represent a different community character, including Chino's Civic Center, downtown, central neighborhoods, 20th century suburban neighborhoods, east Chino, rural neighborhoods, The Preserve and College Park, retail corridors, shopping centers, industrial areas, agricultural areas, open space areas, and institutions. According to Figure CC-1 of the General Plan, the Project Site is located within the City's "Agricultural Areas," which are mainly dairy operations located in the southern part of the City that primarily consist of feeding areas and barns. (Chino, 2010a, Ch. 5)

❑ Housing Element

The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also are requirements of State law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake to implement the policies set forth in the Housing Element. (Chino, 2010a, Ch. 6)

❑ Transportation Element

The purpose of the Transportation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It is also intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, equestrian, public transportation systems, and freight movement. The Transportation Element also establishes level of service (LOS) standards for Transportation Element roadways throughout the City.

The long-term Transportation Element roadway network is illustrated on Transportation Element Figure TRA-6. Along the Project Site's northern frontage, Bickmore Avenue and western frontage, Mountain Avenue are

roadways designated as "Rural Collector," which is an undivided, two-lane road with parking, shared bicycle access, and a 60-foot-wide public right-of-way. Both Bickmore Avenue and Mountain Avenue are identified as a City of Chino truck routes on Transportation Element Figure TRA-5. (Chino, 2010a, Ch. 7)

The Transportation Element also identifies the location of existing and planned bicycle facilities and trails throughout the City. Pursuant to Transportation Element Figure TRA-2, there are no existing or planned bicycle facilities abutting the Project Site. The nearest planned bicycle facility to the Project Site is a segment of Pine Avenue located approximately 0.3-mile south of the Project Site that is designated as "Class I Off-Street Bicycle Facility." A Class I bicycle facility comprises a bicycle lane physically separated from vehicular traffic on its own right-of-way. (Chino, 2010a, TRA-11 and TRA-12) Pursuant to Transportation Element Figure TRA-3, there are no existing or planned equestrian trails located within the vicinity of the Project Site (Chino, 2010a, Figure TRA-3).

❑ Economic Development Element

The Economic Development Element provides goals, objectives, policies, and actions to maintain and strengthen Chino's economy while preserving the City's small-town character. This element addresses the City's economic conditions, jobs/housing balance, and fiscal conditions, and identifies implementation measures. (Chino, 2010a, Ch. 8)

❑ Open Space and Conservation Element

The Open Space and Conservation Element is intended to achieve the preservation of open space and agriculture, and the conservation of natural resources. Issues addressed by the Conservation and Open Space Element include biological resources and associated habitats, agricultural preservation, mineral resources, renewable resources and energy conservation, air quality, global climate change, and historic and cultural resources. (Chino, 2010a, Ch. 9)

❑ Parks and Recreation Element

The Parks and Recreation Element includes specific policies related to park design standards, park dedication, and recreational facilities (Chino, 2010a, Ch. 10)

❑ Public Facilities and Services Element

The Public Facilities and Services Element provides guidance and policies to ensure new development in the City will be supported by adequate public facilities and services. Public facilities and services addressed in this element include fire, police, schools, health care, childcare, public buildings, water service (availability and conservation), sewers, stormwater, and solid waste and recycling. (Chino, 2010a, Ch. 11)

❑ Air Quality Element

The purpose of the Air Quality Element is to identify the regulatory framework related to air quality and provide policy guidance to reduce air pollutants and improve public health in the City (Chino, 2010a, Ch. 12).

❑ Safety Element

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City's needs during both minor emergencies and major catastrophic situations. (Chino, 2010a, Ch. 13)

❑ Noise Element

The purpose of the Noise Element is to identify noise generation in the City and provide policies to ensure that development does not expose people to unacceptable noise levels. According to the General Plan, noise generation sources include freeway and arterial traffic, Chino Airport, Ontario International Airport, Union Pacific Rail Line, and commercial and industrial properties. (Chino, 2010a, Ch. 14)

2. City of Chino Zoning Ordinance

Development of the Project Site is regulated by the development regulations and design standards contained within the City's Zoning Ordinance. Under existing conditions, the Project Site is zoned "General Agriculture" (AG) and "Open Space-Natural" (OS-2). According to the City of Chino Municipal Code, the "AG" zoning district is intended to provide areas for livestock ranges, crop cultivation, agriculture related residences and structures, parks and recreational areas and agricultural offices. The "OS-2" zoning district is intended to feature minimal or no development and to serve as visual buffers, natural open and wildlife corridors and water recharge and detentions/retention areas. The OS-2 district may contain hiking and biking trails and other landscaped areas. (Chino, 2019)

The City of Chino Zoning Map also applies the "Airport Overlay District" to the Project Site. The Airport Overlay District is intended to ensure the viability of airport operations at the Chino Airport, and to protect the health, safety, and welfare of the residents of Chino. Any proposed development within the Airport Overlay District must comply with City Zoning Ordinance Section 20.09.050, *Airport Overlay District*. (Chino, 2019)

3. City of Chino Climate Action Plan

The Chino Climate Action Plan (CAP) was adopted on November 19, 2013 and went into full effect on January 2, 2014. As part of the CAP, the City of Chino selected a goal to reduce the City's GHG emissions to a level 15-percent below its 2008 GHG emissions levels by 2020, which the City determined would achieve the GHG emissions reduction mandates of AB 32 and also would be consistent with the recommendations contained in the CARB AB 32 Scoping Plan. The City concluded that City-wide GHG emissions consistent with the CAP would result in a less-than-significant environmental impact. (Chino, 2013, pp. 5, 13) A detailed description of the CAP and an analysis of the Project's consistency with the CAP was previously provided in EIR Subsection 4.7, *Greenhouse Gas Emissions*.

4. Chino Airport Land Use Compatibility Plans

The 1991 Chino ALUCP and 2008 Chino ALUCP (adopted by Riverside County ALUC) identify land use standards and design criteria for new development located in the proximity of the Chino Airport to ensure

compatibility between the airport and surrounding land uses and to maximize public safety. The Project Site is located within Airport Safety Zones II and III. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7)

According to the Riverside County ALUC's ALUCP for the Chino Airport, the entire Project Site is located within Compatibility Zone "D" (RCALUC, 2008, Map CH-1). This information is presented for informational purposes only, as the Project Site is located in San Bernardino County and the Riverside County ALUC has no jurisdictional authority over the Project Site or the proposed Project evaluated herein.

5. SCAG Regional Transportation Plan and Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region.

As an MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. The *RTP/SCS* also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (ARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. (SCAG, 2016) The *RTP/SCS* is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. The draft *2020-2045 RTP/SCS* (also referred to as "Connect SoCal") has not yet been adopted at the time of preparing this EIR; therefore, the *2016-2040 RTP/SCS* is the applicable adopted plan for the Project as evaluated herein.

6. SCAQMD Air Quality Management Plan

An AQMP is a plan for the regional improvement of air quality. The South Coast Air Quality Management District's (SCAQMD's) *2016 AQMP* is the most recent AQMP for the South Coast Air Basin and was approved by the SCAQMD Governing Board in March 2017. (SCAQMD, 2017) The Project's consistency with the *2016 AQMP* was analyzed in detail in EIR Subsection 4.2, *Air Quality*.

7. San Bernardino County Congestion Management Program

The *San Bernardino County Congestion Management Program (CMP)* was prepared by the San Bernardino Associated Governments (SANBAG). The intent of the *CMP* is to more directly link land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively

utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *San Bernardino CMP* was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. The proposed Project's consistency with the *CMP* is discussed in detail in EIR Subsection 4.12, *Transportation*.

4.10.3 Basis for Determining Significance

The proposed Project would result in a significant impact related to land use and planning if the Project or any Project-related component would:

a. Physically divide an established community; or

b. Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects that development projects could have on the physical environment due to a land use and planning conflict.

4.10.4 Impact Analysis

Threshold a: Would the Project physically divide an established community?

Under existing conditions, the Project Site is bordered by Mountain Avenue to the west, Bickmore Avenue to the north, the Cypress Channel to the east, and the El Prado Golf Course to the south. Immediately north of Bickmore Avenue and east of the Cypress Channel are industrial warehouse facilities. The closest residential community is located approximately 0.7-mile northwest of the Project Site.

The Project would extend the established pattern of industrial development southwest into the Project Site. Therefore, the Project would be a continuation of the established industrial uses in the General Plan and the Project would not have the potential to physically divide an established community.

Furthermore, the Project would connect to the existing roadway system and other infrastructure and would not involve the reconfiguration of streets that could have the potential to alter the surrounding pattern of future development.

In addition, Excess Fill Dirt Site Nos. 1 through 5 only would be disturbed by grading activities as part of soil export activities. Following grading and export activities, the excess fill dirt sites would be hydroseeded and returned to a natural condition. Therefore, there would be no conditions associated with Excess Fill Dirt Site Nos. 1 through 5 that would physically divide an established community, and no impact would occur.

Based on the foregoing, implementation of the Project would not physically divide any existing, surrounding community and impacts would be less than significant.

Threshold b: Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

A. City of Chino General Plan

The Project includes an amendment to the City of Chino General Plan Land Use Map that would change the Project Site's land use designation from "Agriculture (AG)" and "Recreation/Open Space (R/OS)" to "General Industrial (GI)". Approval of the requested General Plan Amendment would eliminate any potential inconsistency between proposed land uses and the site's existing land use designations. Impacts to the environment associated with the Project's proposed General Plan Amendment are evaluated throughout this EIR, and where significant impacts are identified, mitigation measures are imposed to reduce impacts to the maximum feasible extent. There are no environmental impacts that would result as a specific consequence of the proposed changes to the Site's General Plan land use designation, beyond what is already evaluated and disclosed by this EIR.

Based on a review of the Project's Application materials conducted by City of Chino staff, the Project would not conflict with any specific objectives, policies, or actions in the General Plan's A Healthy City; Land Use; Community Character; Housing; Transportation; Economic Development; Open Space and Conservation; Parks and Recreation; Public Facilities and Services; Air Quality; Safety; and Noise Elements that were adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

B. City of Chino Zoning Ordinance

The Project includes a Change of Zone to amend the City of Chino Zoning Map to change the zoning classification of the Project Site from "General Agriculture (AG)" and "Open Space-Natural (OS-2)" to "General Industrial (M2)." Approval of the requested Change of Zone would eliminate any potential inconsistency between the proposed Project and the site's underlying zoning classifications. Impacts to the environment associated with the Project's proposed Change of Zone are evaluated throughout this EIR, and where significant impacts are identified, mitigation measures are imposed to reduce impacts to the maximum feasible extent. The Project would not conflict with any development regulations and design standards in the Zoning Ordinance, and there are no components of the Project's proposed Change of Zone that would result in impacts not already evaluated and disclosed by this EIR. Impacts would be less than significant.

C. SCAG Regional Transportation Plan and Sustainable Communities Strategy

As shown in Table 4.10-1, *SCAG RTP/SCS Goal Consistency Analysis*, the Project would not conflict with the adopted goals of the RTP/SCS.

Table 4.10-1 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G1	Align the plan investments and policies with improving regional economic development and competitiveness.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. It should be noted that the Project would improve the regional economy by creating a new industrial logistics center.
G2	Maximize mobility and accessibility for all people and goods in the region.	No conflict identified. EIR Subsection 4.12, *Transportation*, evaluates Project-related traffic impacts and specifies mitigation measures to ensure that roadway and intersection and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with proposed development. Additionally, the Project would improve the accessibility of goods to the surrounding area.
G3	Ensure travel safety and reliability for all people and goods in the region.	No conflict identified. As disclosed in EIR Subsection 4.12 there are no components of the Project that would result in a substantial safety hazards to motorists or pedestrians.
G4	Preserve and ensure a sustainable regional transportation system.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
G5	Maximize the productivity of our transportation system.	No conflict identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would not conflict with the City of Chino's General Plan Transportation Element, which meets this goal to maximize productivity.
G6	Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	No conflict identified. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, *Air Quality*, and mitigation measures are specified to reduce the Project's air quality impacts to the maximum feasible extent. Additionally, and as discussed in EIR Subsections 4.7, *Greenhouse Gas Emissions*, and 4.5, *Energy*, the Project would foreseeably incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy. Additionally, the Project would construct frontage improvements to Mountain Avenue and Bickmore Avenue, including sidewalks, which would encourage walking in the Project area and, also, would provide bike racks/lockers on the Project Site to promote non-motorized transportation to the Site.
G7	Actively encourage and create incentives for energy efficiency, where possible.	No conflict identified. This policy provides guidance to City staff to establish local incentive programs to encourage and promote energy efficient development. EIR Subsection 4.5, *Energy*, discusses the Project's foreseeable design features related to building design, landscaping, and energy systems to promote the efficient use of energy.

Table 4.10-1 SCAG RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G8	Encourage land use and growth patterns that facilitate transit and active transportation.	No conflict identified. This policy provides guidance to the City to establish a local land use plan that facilitates the use of transit and non-motorized forms of transportation. The Project would develop the subject property with an employment-generating land use (i.e., two logistics/warehouse buildings) that would provide local job opportunities to existing and future residents of the City that would be accessible by transit and active transportation.
G9	Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	No conflict identified. This policy provides guidance to the City of Chino to monitor the transportation network and to coordinate with other agencies as appropriate. The Project would not conflict with the City's transportation network or the City's coordination with other agencies.

Source: (SCAG, 2016)

D. City of Chino Climate Action Plan (CAP)

The Project's consistency with the City of Chino CAP was addressed in detail in EIR Subsection 4.7, *Greenhouse Gas Emissions* (refer to the analysis presented on Page 4.7-19). As concluded in EIR Subsection 4.7, the Project would not conflict with the City of Chino CAP.

E. Chino Airport Land Use Compatibility Plans

According to the City of Chino General Plan, the land uses and site layout proposed by the Project would be compatible within Airport Safety Zones II and III of the Chino Airport ALUCP (Chino, 2010a, LU-24). The Project would not interfere with flight operations at the Chino Airport because the buildings proposed by the Project Applicant are not tall enough to encroach the flight path in and around the Airport, including the flight path for the crosswind runway that is oriented toward the Project Site, and the Project does not include an air travel component (e.g., runway, helipad). Because the industrial land use proposed by the Project would be compatible with the applicable Chino Airport Safety Zone and because the Project would not interfere with operations at the Chino Airport, the Project would not result in safety hazards for people residing or working in the Project area. Impacts would be less than significant and mitigation is not required.

The Project Site is located approximately 7.3 miles southwest of the nearest runway at the Ontario International Airport in direct linear distance (Google Earth Pro, 2019). The Project Site is not located within the AIA for the Ontario International Airport; therefore, the Project would not be exposed to airport safety hazards associated with this facility (Ontario, 2011, Map 2-1).

Only soil excavation and exporting activities would occur on Excess Fill Dirt Site Nos. 1 through 5; no development is proposed by the Project and no people or structures would permanently reside or work on any of the excess fill dirt sites as a result of the Project. Therefore, the Project would have no potential to create an airport safety hazard on any of the excess fill dirt sites.

Based on the foregoing, implementation of the proposed Project would not result in an conflict with an airport land use compatibility plan and impacts would be less than significant.

F. SCAQMD Air Quality Management (AQMP)

The Project's consistency with the SCAQMD *2016 AQMP* is addressed in detail in EIR Subsection 4.2, *Air Quality*. As concluded in EIR Subsection 4.2, implementation of the Project would exceed the growth assumptions assumed in the *AQMP* (and, thus, contribute air pollution to the SCAB that was not anticipated by the *AQMP*) and would contribute a volume of pollutants to the SCAB that could delay the attainment of federal and State ozone standards. Mitigation is provided in EIR Subsection 4.2 to reduce the Project's air pollutant emissions to the maximum level feasible, but not to below a level of significance. The Project would not result in any other land use and planning conflicts with the *2016 AQMP* that are not already disclosed in EIR Subsection 4.2.

G. San Bernardino County Congestion Management Program

The Project's consistency with the *San Bernardino County CMP* is addressed in EIR Subsection 4.12, *Transportation*. As concluded in EIR Subsection 4.12, the Project's impacts at two *San Bernardino County CMP* arterial roadway network facilities would be mitigated to the maximum level feasible, but not to below a level of significance. The Project would not result in any other land use and planning conflicts with the *San Bernardino CMP* that are not already disclosed in EIR Subsection 4.12.

4.10.5 Cumulative Impact Analysis

Under existing conditions, the Project Site is physically separated from neighboring land uses by existing roadways, the Cypress Channel, and the El Prado Golf course facility. Because the Project Site does not directly abut any established communities, there is no potential for the Project to cause or cumulatively contribute to the division of an established community. Additionally, no land uses are proposed on Excess Fill Dirt Site Nos. 1 through 5; thus, use of these sites for soil export activities during construction also would not result in a cumulatively-considerable impact due to the physical division of an established community.

Amendments to the City of Chino General Plan land use designation and City of Chino Zoning Ordnance zoning designation applied to the Project Site would permit development of two cross-dock industrial buildings and associated site improvements. The proposed General Plan Amendment would eliminate inconsistencies between the proposed land uses and the Site's General Plan land use designations. Also, the proposed Change of Zone would ensure Project consistency with the Site's zoning classification. As development occurs elsewhere throughout the cities of Chino and the larger San Bernardino County area, any proposal to change the underlying land use or development intensity for a specific property similarly would not have the potential to result in conflict with applicable land plans and result in substantial, adverse environmental effects with implementation of an amendment to the applicable land use plan and an amendment to the applicable zoning ordinance. Additionally, other cumulative developments would be subject to compliance with all applicable plans, policies, and regulations adopted for the purpose of avoiding or mitigating environmental effects. The Project would not result in any cumulatively-considerable land use and planning conflicts in the context of compliance with applicable environmental plans, policies, and regulations beyond those identified in other Subsections of this EIR.

4.10.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would not physically divide an established community.

Threshold b: Less-than-Significant Impact. The Project's proposed General Plan Amendment and Zone Change would eliminate inconsistencies between the proposed land uses and the Project Site's existing General Plan land use designations and zoning classifications. The Project would not cause a significant environmental impact due to a conflict with any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, beyond those conflicts that already are identified as significant impacts in other Subsections of this EIR.

4.10.7 Mitigation

Impacts to land use and planning would be less than significant; therefore, additional mitigation beyond what is already identified throughout this EIR is not required.

4.11 NOISE

This Subsection addresses the environmental issue of noise, including existing noise levels within the vicinity of the Project Site and Excess Fill Dirt Site Nos. 1 through 5 (herein "Project Study Area") and the Project's potential to introduce new or elevated sources of noise on a temporary or permanent basis. The information contained herein is based in part on information contained in a technical report prepared by Urban Crossroads, Inc., dated April 23, 2020, and titled "Majestic Chino Heritage Noise Impact Analysis" (Urban Crossroads, 2020a). The report is included as *Technical Appendix L* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.11.1 NOISE FUNDAMENTALS

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes physical harm, or when it has adverse effects on human health. Because the range of sound that the human ear can detect is large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure to describe sound intensity is the decibel (dB). Each interval of 10 dB indicates a sound energy 10 times greater than before and is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at a distance of three feet is roughly 60 dBA, while a jet engine is 110 dBA at approximately 100 feet. (Urban Crossroads, 2020a, pp. 15-16)

B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent continuous noise level (Leq). Leq represents a steady state sound level containing the same total energy as a time varying signal over a given time period. Leq are not measured directly but are calculated from sound pressure levels typically measured in dBA. Consequently, Leq can vary depending on the time of day. (Urban Crossroads, 2020a, p. 16)

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8, and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent, and 2 percent of a stated time. Sounds levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. The City of Chino Municipal Code relies on the percentile noise levels to describe stationary source noise level limits. While the L_{50} describes the mean noise levels occurring 50 percent of the time, the Leq accounts for the total energy (average) observed for the entire hour. The Leq noise descriptor is generally 1-2 dBA higher than the L_{50} noise level. (Urban Crossroads, 2020a, p. 16)

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable,

namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of five (5) dB to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 dB to sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The City of Chino relies on the 24-hour CNEL level to assess land use compatibility with transportation-related noise sources. (Urban Crossroads, 2020a, p. 16)

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding. (Urban Crossroads, 2020a, pp. 16-17)

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, 2020a, pp. 16-17)

2. Ground Absorption Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in noise models: soft site and hard site conditions. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. (Urban Crossroads, 2020a, p. 17)

3. Atmospheric Impacts

Receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Other factors that may affect noise levels include air temperature, humidity, and turbulence. (Urban Crossroads, 2020a, p. 17)

4. Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Solid objects or barriers are most effective at attenuating noise levels. Effective noise barriers can reduce noise levels by 10 to 15 dBA. Noise barriers, however, do have

limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (Urban Crossroads, 2020a, p. 17)

D. Traffic Noise Prediction

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. According to the Highway Traffic Noise Analysis and Abatement Policy and Guidance, provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: 1) the volume of the traffic, 2) the speed of the traffic, and 3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on CNEL. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, noise levels will increase. (Urban Crossroads, 2020a, p. 37)

E. Response to Noise

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered "barely perceptible;" and a change of 5 dBA is considered "readily perceptible." (Urban Crossroads, 2020a, p. 18)

F. Vibration

Vibration is the periodic oscillation of a medium or object. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB. (Urban Crossroads, 2020a, p. 19)

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. (Urban Crossroads, 2020a, p. 19)

4.11.2 EXISTING CONDITIONS

A. Existing Study Area Ambient Noise Conditions

Urban Crossroads recorded 24-hour noise readings at 11 locations near the Project Study Area on April 2, 2019. The noise measurement locations are identified in Figure 4.11-1, *Noise Measurement Locations*. The existing ambient noise levels in the vicinity of the Project Study Area are dominated by traffic noise associated with automobiles and truck traffic on the local arterial roadway network. (Urban Crossroads, 2020a, pp. 31, 34)

The results of the existing noise level measurements are listed in Table 4.11-1, *Existing 24-Hour Ambient Noise Level Measurements*, and summarized below. Refer to Appendix 5.2 of *Technical Appendix L* for the noise measurement worksheets used by Urban Crossroads to calculate the noise levels, including a summary of the hourly noise levels and the minimum and maximum observed noise levels at each measurement location.

- **Location L1** represents the noise levels near the Big League Dreams and Fairfield Ranch Park, west of the Project Site. The noise level measurements collected show an overall 24-hour exterior noise level of 57.8 dBA CNEL. The energy average daytime noise level was calculated at 53.9 dBA Leq with an average nighttime noise level of 50.3 dBA Leq.
- **Location L2** represents the noise levels on Mountain Avenue, north of El Prado Road and south of the Project Site boundary. The noise level measurements collected show an overall 24-hour exterior noise level of 62.1 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 59.0 dBA Leq with an average nighttime noise level of 54.4 dBA Leq.
- **Location L3** represents the noise levels on Pine Avenue, near Lizze Custom Processing, at the north boundary of Excess Fill Dirt Site No. 2. The 24-hour CNEL indicates that the overall exterior noise level is 67.9 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 62.6 dBA Leq with an average nighttime noise level of 61.0 dBA Leq.
- **Location L4** represents the noise levels on Johnson Avenue, near Prado Park Equestrian Center, roughly between Excess Fill Dirt Site No. 1 and the southwestern boundary of Excess Fill Dirt Site No. 2. The noise level measurements collected show an overall 24-hour exterior noise level of 58.3 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 53.9 dBA Leq with an average nighttime noise level of 50.9 dBA Leq.
- **Location L5** represents the noise levels on Meadowhouse Avenue, near the Meadow Square Apartment Homes, northeast of Excess Fill Dirt Site No. 2. The noise level measurements collected show an overall 24-hour exterior noise level of 65.5 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 60.5 dBA Leq with an average nighttime noise level of 58.3 dBA Leq.
- **Location L6** represents the noise levels in Prado Regional Park near campground areas west of Excess Fill Dirt Site No. 3. The noise level measurements collected show an overall 24-hour exterior noise level of 56.3 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 53.8 dBA Leq with an average nighttime noise level of 48.3 dBA Leq.



Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-1

NOISE MEASUREMENT LOCATIONS

Table 4.11-1 Existing 24-Hour Ambient Noise Level Measurements

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]		Average Median Noise Level (dBA L_{50})[2]		CNEL
		Daytime	Nighttime	Daytime	Nighttime	
L1	Located near a Big League Dreams and Fairfield Ranch Park, west of the Project site.	53.9	50.3	51.7	48.8	57.8
L2	Located on Mountain Avenue, north of El Prado Road south of the Project site boundary.	59.0	54.4	52.9	47.9	62.1
L3	Located on Pine Avenue, near Lizze Custom Processing, southeast of the Project site.	62.6	61.0	58.5	53.2	67.9
L4	Located on Johnson Avenue, near Prado Park Equestrian Center, southeast of the Project site.	53.9	50.9	49.2	47.1	58.3
L5	Located on Meadowhouse Avenue, near Meadow Square Apartment Homes, east of the Project site.	60.5	58.3	56.6	51.9	65.5
L6	Located in Prado Regional Park near campground areas.	53.8	48.3	48.1	45.9	56.3
L7	Located on Cucamonga Road, near Vermontes Mulch, southeast of the Project site.	57.0	48.9	49.1	43.7	58.1
L8	Located on Chino Corona Road, near County Road, adjacent to existing rural residential homes.	62.7	58.7	47.7	43.7	66.1
L9	Located on Hereford Road, near residential construction and a vacant area, east of the Project site.	60.2	53.3	51.5	45.1	61.8
L10	Located at Walters Street and Hellman Avenue, adjacent to existing residential homes.	75.4	72.6	68.9	53.4	79.7
L11	Located on Chandler Street, near a vacant area and existing residential neighborhood.	61.9	57.7	51.1	45.8	65.4

[1]See Exhibit 5-A of *Technical Appendix L* of this EIR for the noise level measurement locations.
[2]Energy (logarithmic) average hourly levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2 of *Technical Appendix L*.
[3]"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
Source: (Urban Crossroads, 2020a, Table 5-1)

- **Location L7** represents the noise levels on Cucamonga Road, near Vermontes Mulch, near the northeastern boundary of Excess Fill Dirt Site No. 3. The noise level measurements collected show an overall 24-hour exterior noise level of 58.1 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 57.0 dBA Leq with an average nighttime noise level of 48.9 dBA Leq. (Urban Crossroads, 2020a, p. 32)

- **Location L8** represents the noise levels on Chino Corona Road, near County Road, adjacent to an existing rural residential home near the northwest corner of Excess Fill Dirt Site No. 4. The noise level measurements collected show an overall 24-hour exterior noise level of 66.1 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 62.7 dBA Leq with an average nighttime noise level of 58.7 dBA Leq. (Urban Crossroads, 2020a, p. 32)

- **Location L9** represents the noise levels on Hereford Road, near residential construction and a vacant area, north of Excess Fill Dirt Site No. 5. The 24-hour CNEL indicates that the overall exterior noise level is 61.8 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 60.2 dBA Leq with an average nighttime noise level of 53.3 dBA Leq. (Urban Crossroads, 2020a, p. 32)

- **Location L10** represents the noise levels at Walters Street and Hellman Avenue, adjacent to existing residential homes northeast of Excess Fill Dirt Site No. 5. The noise level measurements collected show an overall 24-hour exterior noise level of 79.7 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 75.4 dBA Leq with an average nighttime noise level of 72.6 dBA Leq. (Urban Crossroads, 2020a, p. 32)

- **Location L11** represents the noise levels on Chandler Street, near a vacant area and existing residential neighborhood southeast of Excess Fill Dirt Site No. 5. The noise level measurements collected show an overall 24-hour exterior noise level of 65.4 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 61.9 dBA Leq with an average nighttime noise level of 57.7 dBA Leq. (Urban Crossroads, 2020a, p. 32)

B. Existing Groundborne Vibration

There are no sources of perceptible groundborne vibration on the Project Site or the excess fill dirt sites under existing conditions.

C. Airport Noise

The Project Site is located approximately 1.1 miles in direct linear distance southwest of the Chino Airport. The entire Project Site is located outside of the 55 to 60 dBA CNEL noise level contour boundary (Urban Crossroads, 2020a, p. 27).

4.11.3 APPLICABLE ENVIRONMENTAL PLANS, POLICIES, AND REGULATIONS

The following is a brief description of the federal, State, and local environmental laws and regulations related to noise that are applicable to the Project, off-site improvement areas, the Project Site, Excess Fill Dirt Site Nos. 1 through 5 and/or the surrounding area.

A. Federal Plans, Policies, and Regulations

1. Noise Control Act of 1972

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2017e)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2017e)

2. Federal Transit Administration

The Federal Transit Administration (FTA) published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1). The NVIA also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. The FTA identifies three categories of land uses and provides Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

3. Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards. These standards designate changes in maximum noise level requirements by "stage" designation. The standard requires that the aircraft meet or fall below designated noise levels. For civil jet aircraft, there are four stages identified, with Stage 1 being the loudest and Stage 4 being the quietest. For helicopters, two different stages exist, Stage 1 and Stage 2. As with civil jet aircraft, Stage 2 is quieter than Stage 1. In addition, the FAA is currently working to adopt the latest international standards for helicopters, which will be called Stage 3 and will be quieter than Stage 2. (FAA, 2018)

4. Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency responsible for administering the federal-aid highway program in accordance with federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested federal funding for participation in a project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. (FHWA, 2017)

5. Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002)

B. State Plans, Policies, and Regulations

1. State of California Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city in the State of California adopt a General Plan that includes a Noise Element, which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels.

2. California Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. (BSC, n.d.)

3. California Noise Insulation Standards

The California Noise Insulation Standards (CCR Title 25 Section 1092) establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 25 specifies that interior noise levels attributable to exterior sources shall not exceed 45 dBA Ldn/CNEL (i.e., the same levels that the EPA recommends for residential interiors) in any habitable room of a new dwelling. An acoustical study must be prepared for proposed multiple unit residential and hotel/motel structures where outdoor Ldn/CNEL is 60 dBA or greater. The study must demonstrate that the design of the building would reduce interior noise to 45 dBA Ldn/CNEL or lower. Because noise levels can increase over time in developing areas, Title 25 also specifies that dwellings are to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application. (MLA, n.d.)

4. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. Local governments must "analyze and quantify" noise levels and the extent of noise exposure through actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the Land Use, Circulation, and Housing Elements. The Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including mining, agricultural, and industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses. (OPR, 2017b, p. 131)

C. Local Plans, Policies, and Regulations

1. City of Chino General Plan

The City of Chino General Plan Noise Element addresses the control and abatement of noise and specifies the maximum allowable exterior noise levels for developments that would be impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. The noise standards included in the General Plan are summarized in Table 4.11-2, *City of Chino Noise Element Interior and Exterior Noise Standards*.

Table 4.11-2 City of Chino Noise Element Interior and Exterior Noise Standards

Land Use Category	Uses	Energy Average L_{dn} Interior[a]	Exterior[b]
Residential	Single-family, duplex, multi-family	45[c]	65
	Mobile home	---	65[d]
Commercial, Industrial, Institutional	Hotel, motel, transient lodging	45	65
	Commercial retail, bank, restaurant	55	---
	Office building, research and development, professional offices, City office building	50	---
	Amphitheatre, concert hall, auditorium, meeting hall	45	---
	Gymnasium (multipurpose)	50	---
	Sports club	55	---
	Manufacturing, warehousing, wholesale, utilities	65	---
	Movie theaters	45	---
Institutional	Hospital, schools, classroom	45	65
	Church, library	45	---
Open Space	Parks	---	65

[a] Indoor environment excluding: bathrooms, toilets, closets, corridors.
[b] Outdoor environment limited to: private yard of single-family or multi-family private patio or balcony which is served by a means of exit from inside, mobile home park, hospital patio, park's picnic area, school's playground, and hotel and motel recreation area.
[c] Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided per the California Building Code.
[d] Exterior noise level should be such that interior noise levels will not exceed 45 dB L_{dn}.
Source: (Chino, 2010a, Table N-3)

2. City of Chino Municipal Code

❑ Construction Noise Standards

The Chino Municipal Code limits the hours during which construction activities may take place. Construction activities in the City of Chino may only occur between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday with no construction activities allowed on Sundays and federal holidays (unless a waiver is granted by the City pursuant to Municipal Code Section 15.44.030), and provided the noise levels do not exceed the levels listed below on a residential property (Urban Crossroads, 2020a, pp. 24-25).

- 65 dBA for a cumulative period of no more than 30 minutes in any hour (L_{50})
- 70 dBA for a cumulative period of no more than 15 minutes in any hour (L_{25});

- 75 dBA for a cumulative period of no more than five (5) minutes in any hour (L_8);
- 80 dBA for a cumulative period of more than one (1) minute in any hour (L_2); and/or
- 85 dbA for any period of time.

❑ Operational Noise Standards

The City of Chino Municipal Code does not establish operational noise standards for commercial or industrial land uses; but, does establish maximum noise levels that residential properties can be exposed to, as listed below: (Urban Crossroads, 2020a, p. 23)

- 55 dBA (daytime) or 50 dBA (nighttime) for a cumulative period of no more than 30 minutes in an hour (L_{50});
- 60 dBA (daytime) or 55 dBA (nighttime) for a cumulative period of no more than fifteen minutes in an hour (L_{25});
- 65 dBA (daytime) or 60 dBA (nighttime) for a cumulative period of no more than five minutes in an hour (L_8);
- 70 dBA (daytime) or 65 dBA (nighttime) for a cumulative period of more than one minute in an hour (L_2); and /or
- 75 dBA (daytime) or 70 dBA (nighttime) for any period of time.

❑ Vibration Standards

Chino Municipal Code Section 9.40.110 prohibits any operational activity that creates perceptible vibration (more than 0.05 inches per second). Pursuant to Chino Municipal Code Section 9.40.060(D), construction activities are exempt from any vibration standards so long as construction activities do not generate vibration that endangers the public health, welfare, and/or safety. (Urban Crossroads, 2020a, p. 25)

❑ Construction Management Plan

Pursuant to City of Chino Municipal Code Section 20.23.210, a construction management plan is required for all construction activities that have the potential to impact adjacent residents or businesses. The construction management plan, which must be prepared to the satisfaction of the City of Chino Director of Development Services prior to issuance of construction permits (grading and building) and implemented by the construction contractor(s), is required to contain measures to minimize adverse construction-related noise effects.

3. City of Chino Hills Municipal Code

❑ Operational Standards

The City of Chino Hills Municipal Code Section 16.48.020(B) does not establish operational noise standards for commercial or industrial land uses; but, does establish maximum noise levels that residential properties can

be exposed to, as listed below: (Chino Hills, 2019; Urban Crossroads, 2020a, p. 24; Chino Hills, 2015, Table 7-1)

- 65 dBA for a cumulative period of no more than 30 minutes in an hour (L_{50});
- 70 dBA for a cumulative period of no more than fifteen minutes in an hour (L_{25});
- 75 dBA for a cumulative period of no more than five minutes in an hour (L_8);
- 80 dBAfor a cumulative period of more than one minute in an hour (L_2); and /or
- 85 dBA for any period of time.

❑ Vibration Standards

Chino Hills Municipal Code Section 16.48.030(A) prohibits any construction and/or operational activity that creates perceptible vibration (more than 0.2 inches per second, in/sec) (Chino Hills, 2019; Urban Crossroads, 2020a, p. 25).

4. City of Eastvale

❑ Construction Noise Standards

The City of Eastvale has not established uniform construction noise standards. The City generally allows construction activities that are not detrimental to the health, safety, or general welfare of the community. Specific limits on construction sound level, duration, and hours of activity are considered and determined on a case-by-case basis pursuant to the process outlined in Section 8.52.070(2) of the Eastvale Municipal Code. (Eastvale, 2020)

❑ Vibration Standards

Pursuant to the City of Eastvale General Plan, any construction and/or operational activity that creates perceptible vibration (more than 0.0787 inches per second, in/sec) is prohibited (Eastvale, 2012, p. 10-6; Urban Crossroads, 2020a, p. 25).

4.11.4 Methodology for Estimating Project-Related Noise Impacts

A. Construction Noise Analysis Methodology

Urban Crossroads collected reference noise level measurements at construction sites throughout southern California that were using the same types of construction equipment that would be used to construct the proposed Project and that were performing similar types of construction activities at a similar level of activity as would occur within the Project Study Area (refer to EIR Section 3.0, *Project Description*, for a description of the construction equipment and construction activities that would be needed to construct the proposed Project). Table 4.11-3, *Construction Reference Noise Levels*, provides a summary of the reference noise level measurements. Because the reference noise measurements were collected at different distances to the primary noise source, all construction noise level measurements presented in Table 4.11-3 were normalized by Urban Crossroads to describe a common reference distance of 50 feet. (Urban Crossroads, 2020a, p. 79)

Table 4.11-3 Construction Reference Noise Levels

ID	Noise Source	Duration (h:mm:ss)	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA L_{eq})	Reference Noise Levels @ 50 Feet (dBA L_{eq})[6]
1	Truck Pass-Bys & Dozer Activity[1]	0:01:15	30'	63.6	59.2
2	Dozer Activity[1]	0:01:00	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities[2]	0:01:00	30'	71.9	67.5
4	Foundation Trenching[2]	0:01:01	30'	72.6	68.2
5	Rough Grading Activities[2]	0:05:00	30'	77.9	73.5
6	Framing[3]	0:02:00	30'	66.7	62.3
7	Scraper, Water Truck, & Dozer Activity[4]	0:30:00	30'	79.7	75.3
8	Concrete Mixer Truck Movements[5]	0:01:00	50'	71.2	71.2
9	Concrete Paver Activities[5]	0:01:00	30'	70.0	65.6
10	Concrete Mixer Pour & Paving Activities[5]	0:01:00	30'	70.3	65.9
11	Concrete Mixer Backup Alarms & Air Brakes[5]	0:00:20	50'	71.6	71.6
12	Concrete Mixer Pour Activities[5]	1:00:00	50'	67.7	67.7

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.
[4] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations at an industrial construction site in the City of Ontario.
[5] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[6] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

Source: (Urban Crossroads, 2020a, Table 10-1)

The construction noise analysis evaluates Project-related construction noise levels at the nearby sensitive receptor locations within the Project Study Area. A total of 22 receptor locations were considered in the construction noise analysis, including Prado Regional Park, an equestrian center, the California Institution for Women (a women's State prison), existing and future dwelling units, and open space uses. Regarding noise in open space areas, refer to Subsection 4.3, *Biological Resources*, in this EIR for discussion of potential noise impacts to sensitive wildlife species in open space areas. The receptor locations used in the construction noise analysis are shown on Figure 4.11-2, *Noise Receptor Locations*. The modeled noise-sensitive receptor locations are representative of existing receptors nearest the Project Study Area. It is not necessary to study every single receptor location surrounding the Project's construction area because receptors located at a similar distance to Project-related construction activities with similar ground elevations, orientation, and intervening physical conditions as the modeled receptor locations would experience the same or very similar noise effects as those disclosed in the noise modeling, and those at a greater distance would experience lesser noise effects. (Urban Crossroads, 2020a, pp. 31-32)

B. Transportation-Related Noise Analysis Methodology

Transportation-related noise impacts were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108 (the "FHWA Model"). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMELs to account for: 1) roadway classification (e.g., collector, secondary, major or arterial), 2) roadway travel width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), 3) total average daily traffic (ADT), 4) travel speed, 5) percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, 6) roadway grade, 7) angle of view (e.g., whether the roadway view is blocked), 8) site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and 9) percentage of total ADT that flows each hour throughout a 24-hour period. (Urban Crossroads, 2020a, p. 37)

Table 4.11-4, *Roadway Parameters*, presents the FHWA Model roadway parameters used by Urban Crossroads for each of the 37 studied roadway segments. For the purpose of the off-site analysis, soft site conditions were used to analyze the traffic noise impacts on each roadway segment because landscaping typically exists between the street surface and the noise receptor. (Urban Crossroads, 2020a, p. 39)

To quantify transportation-related noise levels, the vehicular trips associated with the Project were assigned to the 37 roadway segments studied, using the trip distribution and vehicle mix information contained in the Project's traffic impact analysis prepared by Urban Crossroads (refer to *Technical Appendix M*) (Urban Crossroads, 2020a, pp. 37-38).

C. Vibration

Vibration levels were predicted using reference vibration levels and logarithmic equations contained in the Federal Transit Administration's (FTA) 2006 publication: "Transit Noise and Vibration Impact Assessment." The vibration source levels for Project construction equipment are summarized in Table 4.11-5, *Vibration Source Levels for Construction Equipment*. (Urban Crossroads, 2020a, p. 45)



Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-2

NOISE RECEIVER LOCATIONS

Table 4.11-4 Roadway Parameters

ID	Roadway	Segment	Adjacent Planned (Existing if Different) Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Central Av.	n/o El Prado Rd.	Industrial/Urban Reserve	60'	45
2	Central Av.	s/o El Prado Rd.	Industrial	60'	45
3	El Prado Rd.	n/o Kimball Av.	Industrial/Urban Reserve	44'	45
4	Euclid Av.	n/o Walnut Av.	Commercial	84'	55
5	Euclid Av.	n/o Riverside Dr.	Residential/Commercial	84'	55
6	Euclid Av.	n/o Chino Av.	Residential/Commercial	84'	55
7	Euclid Av.	n/o Schaefer Av.	Residential/Commercial	84'	55
8	Euclid Av.	n/o Edison Av.	Residential/Commercial	84'	55
9	Euclid Av.	n/o Eucalyptus Av.	Residential/Commercial	84'	55
10	Euclid Av.	n/o Merrill Av.	Residential/Agricultural	84'	55
11	Euclid Av.	s/o Merrill Av.	Open Space/Airport Related	84'	55
12	Euclid Av.	n/o Kimball Av.	Industrial/Airport Related	84'	55
13	Euclid Av.	n/o Bickmore Av.	Industrial/Commercial	84'	55
14	Archibald Av.	n/o Limonite Av.	Commercial/Residential	84'	55
15	Archibald Av.	s/o Limonite Av.	Commercial/Residential	76'	45
16	Archibald Av.	s/o Schleisman Rd.	Commercial/ Residential	76'	45
17	Kimball Av.	w/o Mountain Av.	Urban Reserve/Industrial	44'	50
18	Kimball Av.	w/o Euclid Av.	Industrial/Airport Related	44'	50
19	Kimball Av.	e/o Euclid Av.	Industrial/Airport Related	49'	50
20	Kimball Av.	w/o Rincon Meadows Av.	Airport Related/Residential	49'	50
21	Kimball Av.	e/o Rincon Meadows Av.	Airport Related/Residential	49'	50
22	Kimball Av.	e/o Mill Creek Av.	Airport Related/Residential	49'	50
23	Kimball Av.	e/o Main St.	Airport Related/Residential	49'	50
24	Kimball Av.	e/o Flight Av.	Industrial/Residential	49'	50
25	Limonite Av.	w/o Archibald Av.	Industrial	76'	50
26	Limonite Av.	e/o Archibald Av.	Commercial/Residential	76'	50
27	Pine Av.	w/o El Prado Rd.	Open Space (Golf Course)	60'	45
28	Pine Av.	w/o Euclid Av.	Industrial/Open Space	60'	45
29	Pine Av.	e/o Euclid Av.	Comm./Recreation (Residential)	60'	45
30	Pine Av.	w/o Chino Corona Rd.	Commercial/Residential	60'	45
31	Pine Av.	w/o W. Preserve Loop	Residential	60'	45
32	Pine Av.	w/o E. Preserve Loop	Residential	60'	45
33	Pine Av.	w/o Hellman Av.	Residential	60'	45
34	Schleisman Rd.	w/o Archibald Av.	Commercial/Residential	76'	45
35[4]	Chino Corona Rd.	s/o Pine Av.	Commercial/Residential	30'	45
36[4]	Chino Corona Rd.	e/o Cucamonga Av.	Residential/Agricultural	30'	40
37[4]	Hellman Av.	s/o Pine Av.	Residential	49'	45

[1] Sources: Land Use Maps of the City of Chino, Chino Hills, Ontario, and Eastvale, and aerial imagery.
[2] Distance to adjacent land use is based upon the right-of-way distances for each roadway classification provided in the General Plan Circulation Element.
[3] Sources: Majestic Chino Heritage Traffic Impact Analysis, prepared by Urban Crossroads, Inc.
[4] Segments 35 to 37 are only analyzed under Existing and Existing with Project conditions to determine potential off-site traffic noise impacts during dirt haul truck trips associated with Project construction.

Source: (Urban Crossroads, 2020a, Table 6-1)

Table 4.11-5 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

Source: (Urban Crossroads, 2020a, Table 6-9)

4.11.5 Basis for Determining Significance

The proposed Project would result in a significant noise impact if the Project or any Project-related component would result in the following:

a. *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*

b. *Generation of excessive groundborne vibration or groundborne noise levels; or*

c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport r public use airport, would the Project expose people residing or working in the Project area to excessive noise levels.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse noise-related effects that could result from development projects. The specific, quantitative criteria described below are used to evaluate the significance of potential noise impacts under Thresholds "a" and "b," and are based on applicable City of Chino, City of Chino Hills, and City of Eastvale regulations and relevant federal and State performance standards.

In relation to Threshold "a," the City of Chino Noise Ordinance (Chino Municipal Code Chapter 9.40) is the only relevant, established construction noise standards for the Project's Study Area. The City of Chino Hills and the City of Eastvale do not identify specific construction noise level thresholds; therefore, this analysis relies on the City of Chino noise ordinance thresholds for conservative measure. Pursuant to the Chino Municipal Code, the Project would result in a significant temporary noise impact relative to Threshold "a" if any of the following were to occur. (Urban Crossroads, 2020a, p. 25)

- Construction activities occur outside of the hours permitted by the City of Chino Municipal Code (between 7:00 a.m. and 8:00 p.m. Monday through Saturday with no construction allowed on Sundays and federal holidays), unless a waiver is granted by the City of Chino (Urban Crossroads, 2020a, p. 28); or

- Construction activities expose noise-sensitive receptors in the City of Chino to noise levels in excess of 65 dBA Leq [Note: As described earlier in this Subsection, the Chino Municipal Code relies on percentile noise levels to describe noise level limits (e.g., L_{50}, which describes the mean noise levels occurring 50 percent of the time). The Leq noise descriptor, which reports the average sound energy of a fluctuating noise source over a period of time, is used for purposes of the construction analysis because Leq is generally 1-2 dBA higher than the associated L_{50} noise level and, therefore, use of Leq would overestimate the Project's actual impact. (Urban Crossroads, 2020a, pp. 24-25, 28)]

In relation to Threshold "a," the Project would result in a significant noise impact during operation if any of the following conditions occur (Urban Crossroads, 2020a, pp. 27-28):

- Off-Site Traffic Noise:
  - When off-site traffic noise levels, without or with the Project, at existing and future noise-sensitive land uses (e.g. residential, schools, churches, etc.) exceed the 65 dBA CNEL standard for noise-sensitive uses identified in Table 4.11-2, and the Project creates a community noise level increase of greater than 1.5 dBA CNEL; or
  - When off-site traffic noise levels, without or with the Project, at existing and future non-noise-sensitive land uses (e.g. industrial, etc.) exceed the OPR General Plan Guidelines, Appendix C: Noise Element Guidelines, normally acceptable 70 dBA CNEL noise level criteria and the Project creates a community noise level increase of greater than 1.5 dBA CNEL.
- On-Site Project Operations:
  - Noise levels located in the City of Chino that exceed 55 dBA L_{50}, 60 dBA L_{25}, 65 dBA L_8, 70 dBA L_2, and/or 75 dBA L_{MAX} during daytime hours (7:00 a.m. to 10:00 pm.);
  - Noise levels located in the City of Chino that exceed 50 dBA L_{50}, 55 dBA L_{25}, 60 dBA L_8, 75 dBA L_2, and/or 70 dBA L_{MAX} during nighttime hours (10:00 p.m. to 7:00 a.m.); or
  - Noise levels located in the City of Chino Hills that exceed 65 dBA L_{50}, 70 dBA L_{25}, 75 dBA L_8, 80 dBA L_2, and/or 85 dBA L_{MAX}.

For evaluation under Threshold "b," vibration levels during construction and long-term operation of the Project would be considered significant if Project-related activities would (Urban Crossroads, 2020a, p. 28):

- Create or cause to be created any vibration activity that would exceed 0.05 in/sec RMS velocity at a noise-sensitive receptor land use in the City of Chino;
- Create or cause to be created any vibration activity that would exceed 0.2 inch/sec PPV at a noise-sensitive receptor land use in the City of Chino Hills; or
- Create or cause to be created any vibration activity that would exceed 0.0787 inch/sec PPV at a noise-sensitive receptor land use in the City of Eastvale.

4.11.6 IMPACT ANALYSIS

Threshold a: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The analysis presented on the following pages summarizes the Project's potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise that would be generated by the Project's traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1 and 9.1 of *Technical Appendix L*.

A. Short-Term Construction Noise Impact Analysis

As part of the Project's construction, soil would be exported from up to five excess fill dirt sites to the Project Site in order to raise the proposed building footprints above elevation 566 feet AMSL and out of the Prado Dam Reservoir Area. As such, soil excavation activities proposed on Excess Fill Dirt Site Nos. 1 through 5 are included in this analysis.

Construction activities on the Project Site and/or Excess Fill Dirt Site Nos. 1 through 5 are expected to proceed in five stages: 1) soil import/export process; 2) grading; 3) building construction; 4) paving; and 5) application of architectural coatings. These activities would create temporary periods of noise when heavy construction equipment is in operation and would cause a short-term increase in ambient noise levels. Examples of construction equipment that generate noise include, but are not limited to, off-road equipment (e.g., graders, scrapers), power tools, concrete mixers, and portable generators. (Urban Crossroads, 2020a, p. 79)

Construction activities are proposed to primarily occur on weekdays during daylight hours. However, concrete pouring for building foundation and tilt-up wall panels during the paving stage could occur during nighttime hours because cool temperatures are needed to pour and cure concrete and daytime air temperatures are often too warm. Pursuant to Chino Municipal Code Section 15.44.030, the City would have to approve any nighttime construction activities. Furthermore, the soil import/export process could occur during daytime or nighttime hours, with nighttime hours proposed to minimize transportation impacts during daytime hours when a majority of other vehicles are on the road. The Project's construction noise levels at the modeled receptor locations are summarized in Table 4.11-6, *Project Construction Noise Levels*.

As shown in Table 4.11-6, the Project's peak construction activities would exceed the threshold of significance (i.e., 65 dBA Leq) for one noise sensitive receptor location (Receptor R10) in close proximity to Excess Fill Dirt Site No. 4 *only if* the Receptor R10 site is occupied with a residential use at the time the soil import/export activities occur. The location of Receptor R10 is a planned residential community that is not yet developed but that currently contains one residence associated with the property's historic agricultural use. Project-related construction noise impacts to Receptor R10 represents a substantial temporary increase in ambient noise levels at this receptor location; therefore, the daytime and nighttime noise from the Project's import/export construction activities would be a significant impact at Receptor R10 only under the condition of this location being occupied with a residential use at the time of the soil import/export activities. If sensitive receptors are present, mitigation would be required. Project-related construction impacts to all of the other

Table 4.11-6 Project Construction Noise Levels

Receiver Location[1]	Land Use	Highest Unmitigated Construction Noise Levels (dBA L_{eq})[2]	Construction Activity	Threshold (dBA L_{eq})[3]	Threshold Exceeded?[4]
R1	Residential	36.3	Project Grading	65	No
R2	Park	38.0	Project Grading	n/a	No
R3	Residential	64.5	Dirt Import/Export	65	No
R4	Equestrian Center	61.5	Dirt Import/Export	65	No
R5	Park	58.3	Dirt Import/Export	n/a	No
R6	Residential	55.1	Dirt Import/Export	65	No
R7	Institutional	51.7	Dirt Import/Export	n/a	No
R8	Park	66.3	Dirt Import/Export	n/a	No
R9	Residential (Future)	64.6	Dirt Import/Export	65	No
R10	Residential	67.5	Dirt Import/Export	65	**Yes**
R11	Residential	64.6	Dirt Import/Export	65	No
R12	Residential	53.0	Dirt Import/Export	65	No
R13	Residential	61.3	Dirt Import/Export	65	No
R14	Residential	45.7	Dirt Import/Export	65	No
R15	Open Space Receiver[5]	51.4	Dirt Import/Export	-	-
R16	Open Space Receiver[5]	50.0	Dirt Import/Export	-	-
R17	Open Space Receiver[5]	79.7	Dirt Import/Export	-	-
R18	Open Space Receiver[5]	67.7	Dirt Import/Export	-	-
R19	Open Space Receiver[5]	50.4	Dirt Import/Export	-	-
R20	Open Space Receiver[5]	83.2	Dirt Import/Export	-	-
R21	Open Space Receiver[5]	63.0	Dirt Import/Export	-	-
R22	Open Space Receiver[5]	64.7	Dirt Import/Export	-	-

[1]Noise receptor locations are shown on EIR Figure 4.11-2.
[2]Estimated highest construction noise levels, as show on Table 10-7 of *Technical Appendix L*.
[3]Construction noise standard as listed in EIR Subsection 4.11.5.
[4]Do the estimated Project construction noise levels satisfy the construction noise level threshold?
[5]Open space receptor locations are identified for informational purposes only. The Project's Biology Report (*Technical Appendix C*) will analyze the significance of any potential noise impacts to sensitive wildlife species.
"n/a" = No construction noise level threshold is identified for the given use; however, construction noise levels are presented for informational purposes.
Source: (Urban Crossroads, 2020a, Table 10-8)

receptor locations (Receptors R1 through R9 and R11 through R22) would be less than significant. Note: Receptors R15 through R22 represent open space receptor locations and are identified herein for informational purposes only; refer to Subsection 4.3, *Biological Resources*, in this EIR for discussion of potential noise impacts to sensitive wildlife species in open space areas.

B. Long-Term Stationary Noise Impact Analysis

Stationary (on-site) noise sources associated with long-term Project operation are expected to include idling trucks, delivery truck and automobile parking, delivery truck backup alarms, roof-top air conditioning units, loading and unloading of dry goods, and parking lot vehicle movements. The Project also is expected to generate noise during the loading and unloading of delivery trailers on-site. (Urban Crossroads, 2020a, p. 11)

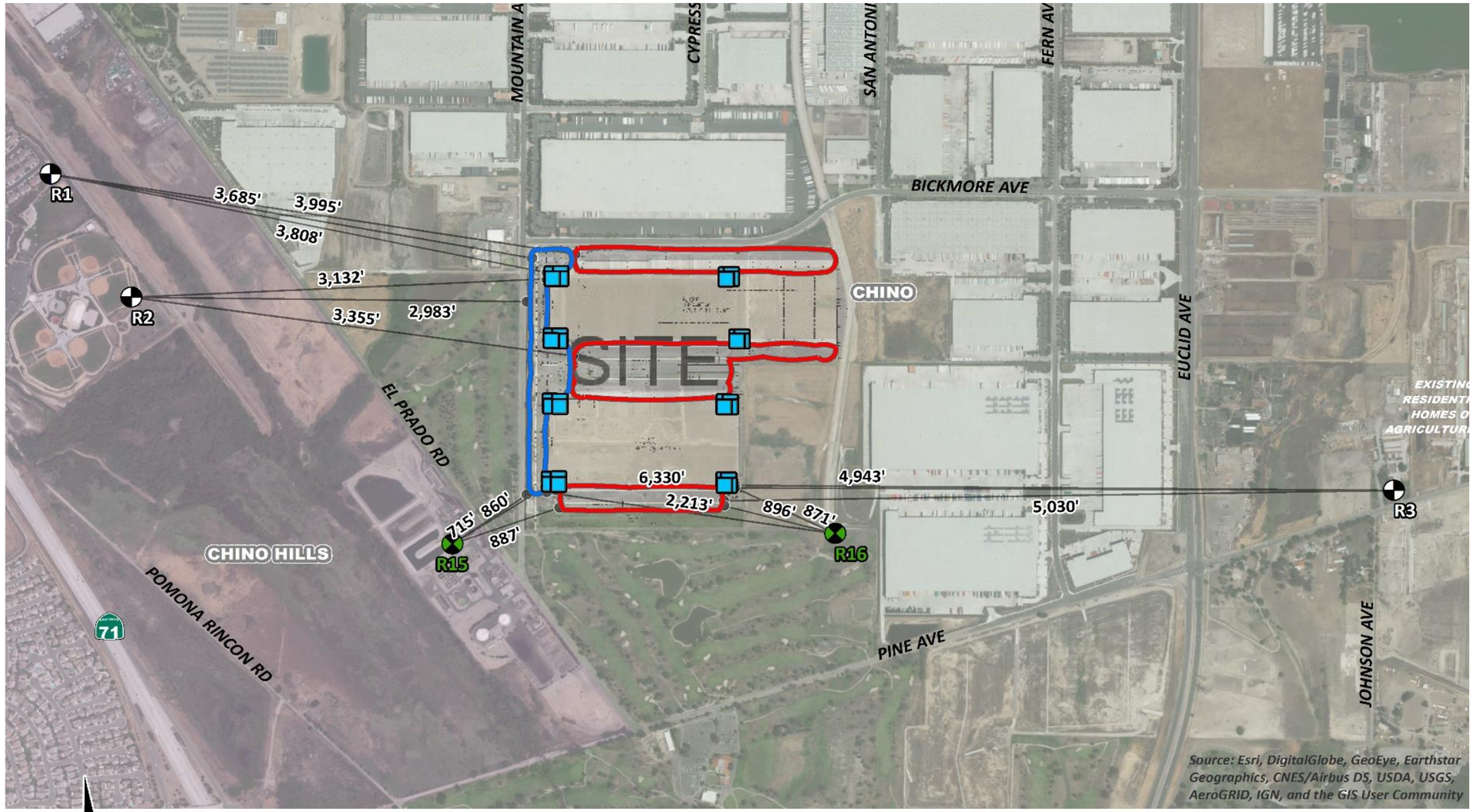
Project-related stationary noise levels were calculated at five representative receptor locations located near the Project Site (i.e., Receptors R1, R2, R3, R15, and R16) previously shown on Figure 4.11-2, and depicted on Figure 4.11-3, *Operational Noise Source and Receptor Locations*. It should be noted that Receptors R4 to R14 are not included in this analysis because these receptor locations are located further from the proposed on-site Project operational activities, which would result in operational noise levels less than those identified at Receptor R3. As discussed under Subsection 4.11.4A, it is not necessary to study every single receptor location surrounding the Project Site because receptors located at similar distances from the noise source with similar ground elevations, orientation, and intervening physical conditions (e.g., walls, landscaping) as the five modeled receptor locations would experience the same or very similar noise levels to those disclosed herein. The daytime and nighttime Project stationary noise levels at nearby receptor locations is summarized in Table 4.11-7, *Project Operational Noise – Stationary Noise*. (Urban Crossroads, 2020a, p. 76)

Table 4.11-7 Project Operational Noise – Stationary Noise

Receiver Location[1]	City	Land Use	Noise Level at Receiver Locations (dBA)[2]					Threshold Exceeded?[3]
			L_{50} (30 mins)	L_{25} (15 mins)	L_8 (5 mins)	L_2 (1 min)	L_{max} (<1 min)	
Daytime	Chino	Residential Standards	55	60	65	70	75	-
Nighttime			50	55	60	65	70	-
Any Time	Chino Hills		65	70	75	80	85	-
R1	Chino Hills	Residential	22.5	25.3	29.6	33.3	37.6	No
R2	Chino Hills	Park	24.1	26.9	31.1	34.8	39.2	No
R3	Chino	Residential	20.5	23.3	27.6	31.2	35.6	No
R15	Open Space Receiver[4]		35.6	38.4	42.7	46.4	50.8	-
R16	Open Space Receiver[4]		35.5	38.3	42.6	46.2	50.6	-

[1]See Exhibit 9-A of *Technical Appendix L* for the receptor and noise source locations.
[2]Estimated unmitigated Project operational noise levels as shown on Table 9-2 of *Technical Appendix L*.
[3]Do the estimated Project operational noise levels meet the operational noise level standards (as listed in EIR Subsection 4.11.5)?
[4]Open space receptor locations are identified for informational purposes only. The Project's Biology Report (*Technical Appendix C*) will analyze the significance of any potential noise impacts to sensitive wildlife species. Receptor locations R17 to R22 are located further from the on-site Project operational activities, and as such, would experience operational noise levels less than those identified at R15 and R16 for open space receptor locations.
Source: (Urban Crossroads, 2020a, Table 9-3)

As shown in Table 4.11-7, none of the sensitive receptor locations near the Project Site would be exposed to noise levels that exceed the applicable limits established by the Chino Municipal Code or Chino Hills Municipal Code (Urban Crossroads, 2020a, p. 77). Additionally, because the excess fill dirt sites would be



Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-3

OPERATIONAL NOISE SOURCE AND RECEIVER LOCATIONS

hydroseeded and returned to a natural condition following completion of soil export activities, there would be no operational noise associated with the excess fill dirt sites under long-term conditions. Accordingly, the Project's operational noise impact would be less than significant and no mitigation would be required.

C. Off-Site Traffic Noise Impact Analysis

To evaluate off-site noise increases that could result from Project-related traffic, noise levels were modeled for the soil export activities at the excess fill dirt sites (i.e., during construction activities) and for Project-related operational traffic, as follows (Urban Crossroads, 2020a, p. 47):

Excess Fill Dirt Site Nos. 1 through 5 Construction Traffic:

- Existing plus Project haul truck trips – Daytime Hours
- Existing plus Project haul truck trips – Nighttime Hours

Project Operational Traffic:

- Existing with and without Project traffic
- Opening Year (2022) with and without Project traffic
- Horizon Year (2040) with and without Project traffic

The Existing plus Project (E+P) analyses, which are used for Project operational traffic and haul truck trips for soil import activities from Excess Fill Dirt Site Nos. 1 through 5, determines the Project's traffic noise impacts under the scenario where traffic from the Project is added to existing conditions.

The Opening Year (2022) analysis provides an evaluation of traffic noise conditions at the time the Project becomes operational. The Opening Year analyses are used to determine the Project's potential to cumulatively contribute to near-term noise impacts upon consideration of existing traffic, ambient growth, Project traffic, and traffic from cumulative development projects.

The Horizon Year (2040) analysis determines the potential for the Project to contribute to long-term noise impacts after the addition of growth expected from build out of local general plans and local cumulative development projects.

Refer to EIR Subsection 4.12, *Transportation*, for information about the distribution pattern of Project-related traffic. The trip distribution for the proposed Project was developed based on anticipated passenger car and truck travel patterns to-and-from the Project Site. The traffic distribution pattern for Project-related truck trips and passenger car trips are shown in EIR Subsection 4.12 and discussed in more detail in the Project's technical Traffic Impact Analysis included as *Technical Appendix M* to this EIR.

1. Project Operations Traffic Noise

❑ Existing plus Project (E+P)

As summarized in Table 4.11-8, *Existing plus Project Traffic Noise Levels*, the Project's traffic noise would generate a noise level increase of up to 0.8 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-8, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the E+P scenario; therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels. Impacts would be less than significant.

❑ Opening Year (2022)

As summarized in Table 4.11-9, *Opening Year (2022) Traffic Noise Levels*, the Project's traffic would generate a noise level increase of up to 0.8 dBA CNEL on the study area road segments under Opening Year (2020) conditions. As indicated in Table 4.11-9, noise from Project-related operational traffic would not exceed the applicable significance thresholds in the Opening Year (2022) scenario; therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels. Impacts would be less than significant.

❑ Horizon Year (2040)

As summarized in Table 4.11-10, *Horizon Year (2040) Traffic Noise Levels*, the Project's traffic would generate a noise level increase of up to 0.7 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-9, noise from Project-related operational traffic would not exceed the applicable significance thresholds in the Horizon Year (2040) scenario; therefore, the Project's contribution of off-site traffic noise would not result in a substantial, permanent increase in ambient noise levels. Impacts would be less than significant.

Table 4.11-8 Existing plus Project Traffic Noise Levels

ID	Road	Segment	Adjacent Planned (Existing) Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Noise-Sensitive Land Use?	Threshold Exceeded?[2]
				No Project	With Project	Project Addition		
1	Central Av.	n/o El Prado Rd.	Industrial/Urban Reserve	74.5	74.5	0.0	No	No
2	Central Av.	s/o El Prado Rd.	Industrial	75.3	75.6	0.3	No	No
3	El Prado Rd.	n/o Kimball Av.	Industrial/Urban Reserve	74.7	75.0	0.4	No	No
4	Euclid Av.	n/o Walnut Av.	Commercial	78.8	79.2	0.4	No	No
5	Euclid Av.	n/o Riverside Dr.	Residential/Commercial	78.0	78.5	0.5	Yes	No
6	Euclid Av.	n/o Chino Av.	Residential/Commercial	78.0	78.5	0.5	Yes	No
7	Euclid Av.	n/o Schaefer Av.	Residential/Commercial	78.4	78.9	0.5	Yes	No
8	Euclid Av.	n/o Edison Av.	Residential/Commercial	78.7	79.1	0.4	Yes	No
9	Euclid Av.	n/o Eucalyptus Av.	Residential/Commercial	78.4	78.9	0.5	Yes	No
10	Euclid Av.	n/o Merrill Av.	Residential/Agricultural	79.0	79.4	0.4	Yes	No
11	Euclid Av.	s/o Merrill Av.	Open Space/Airport Related	78.8	79.3	0.4	No	No
12	Euclid Av.	n/o Kimball Av.	Industrial/Airport Related	78.8	79.2	0.4	No	No
13	Euclid Av.	n/o Bickmore Av.	Industrial/Commercial	76.6	77.3	0.6	No	No
14	Archibald Av.	n/o Limonite Av.	Commercial/Residential	78.0	78.0	0.0	Yes	No
15	Archibald Av.	s/o Limonite Av.	Commercial/Residential	71.4	71.6	0.2	Yes	No
16	Archibald Av.	s/o Schleisman Rd.	Commercial/ Residential	71.0	71.1	0.1	Yes	No
17	Kimball Av.	w/o Mountain Av.	Urban Reserve/Industrial	74.7	75.1	0.4	No	No
18	Kimball Av.	w/o Euclid Av.	Industrial/Airport Related	75.3	75.3	0.1	No	No
19	Kimball Av.	e/o Euclid Av.	Industrial/Airport Related	74.1	74.1	0.0	No	No
20	Kimball Av.	w/o Rincon Meadows Av.	Airport Related/Residential	74.3	74.3	0.0	Yes	No
21	Kimball Av.	e/o Rincon Meadows Av.	Airport Related/Residential	74.1	74.2	0.0	Yes	No
22	Kimball Av.	e/o Mill Creek Av.	Airport Related/Residential	73.7	73.7	0.0	Yes	No
23	Kimball Av.	e/o Main St.	Airport Related/Residential	73.4	73.4	0.0	Yes	No
24	Kimball Av.	e/o Flight Av.	Industrial/Residential	72.7	72.7	0.0	Yes	No
25	Limonite Av.	w/o Archibald Av.	Industrial	n/a	n/a	n/a	No	n/a
26	Limonite Av.	e/o Archibald Av.	Commercial/Residential	71.3	71.5	0.2	Yes	No
27	Pine Av.	w/o El Prado Rd.	Open Space (Golf Course)	43.8	43.8	0.0	No	No
28	Pine Av.	w/o Euclid Av.	Industrial/Open Space	68.4	69.3	0.8	No	No
29	Pine Av.	e/o Euclid Av.	Comm./Recreation (Residential)	73.9	74.1	0.2	Yes	No
30	Pine Av.	w/o Chino Corona Rd.	Commercial/Residential	74.5	74.7	0.2	Yes	No
31	Pine Av.	w/o W. Preserve Loop	Residential	71.9	72.3	0.3	Yes	No
32	Pine Av.	w/o E. Preserve Loop	Residential	74.0	74.3	0.2	Yes	No
33	Pine Av.	w/o Hellman Av.	Residential	74.0	74.2	0.2	Yes	No
34	Schleisman Rd.	w/o Archibald Av.	Commercial/Residential	72.2	72.3	0.2	Yes	No

[1] Sources: Land Use Maps of the City of Chino, Chino Hills, Ontario, and Eastvale, and aerial imagery.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. Values rounded to the nearest one-tenth.
"n/a" = Roadway segment does not represent a paved and/or fully constructed roadway under the given scenario.

Source: (Urban Crossroads, 2020a, Table 7-7)

Table 4.11-9 Opening Year (2022) Traffic Noise Levels

ID	Road	Segment	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?[2]
			No Project	With Project	Project Addition		
1	Central Av.	n/o El Prado Rd.	74.8	74.8	0.0	No	No
2	Central Av.	s/o El Prado Rd.	75.7	76.0	0.3	No	No
3	El Prado Rd.	n/o Kimball Av.	75.1	75.4	0.4	No	No
4	Euclid Av.	n/o Walnut Av.	79.4	79.7	0.4	No	No
5	Euclid Av.	n/o Riverside Dr.	78.7	79.1	0.4	Yes	No
6	Euclid Av.	n/o Chino Av.	78.7	79.1	0.4	Yes	No
7	Euclid Av.	n/o Schaefer Av.	79.1	79.5	0.4	Yes	No
8	Euclid Av.	n/o Edison Av.	79.4	79.8	0.4	Yes	No
9	Euclid Av.	n/o Eucalyptus Av.	79.1	79.5	0.4	Yes	No
10	Euclid Av.	n/o Merrill Av.	79.6	80.0	0.4	Yes	No
11	Euclid Av.	s/o Merrill Av.	79.4	79.8	0.4	No	No
12	Euclid Av.	n/o Kimball Av.	79.3	79.7	0.4	No	No
13	Euclid Av.	n/o Bickmore Av.	77.4	78.0	0.5	No	No
14	Archibald Av.	n/o Limonite Av.	78.6	78.6	0.0	Yes	No
15	Archibald Av.	s/o Limonite Av.	72.0	72.1	0.1	Yes	No
16	Archibald Av.	s/o Schleisman Rd.	71.4	71.4	0.1	Yes	No
17	Kimball Av.	w/o Mountain Av.	75.2	75.6	0.4	No	No
18	Kimball Av.	w/o Euclid Av.	75.7	75.8	0.1	No	No
19	Kimball Av.	e/o Euclid Av.	74.6	74.7	0.0	No	No
20	Kimball Av.	w/o Rincon Meadows Av.	74.8	74.8	0.0	Yes	No
21	Kimball Av.	e/o Rincon Meadows Av.	74.6	74.7	0.0	Yes	No
22	Kimball Av.	e/o Mill Creek Av.	74.2	74.2	0.0	Yes	No
23	Kimball Av.	e/o Main St.	74.0	74.0	0.0	Yes	No
24	Kimball Av.	e/o Flight Av.	73.2	73.2	0.0	Yes	No
25	Limonite Av.	w/o Archibald Av.	n/a	n/a	n/a	No	n/a
26	Limonite Av.	e/o Archibald Av.	72.1	72.3	0.2	Yes	No
27	Pine Av.	w/o El Prado Rd.	44.1	44.1	0.0	No	No
28	Pine Av.	w/o Euclid Av.	68.7	69.5	0.8	No	No
29	Pine Av.	e/o Euclid Av.	74.4	74.6	0.2	Yes	No
30	Pine Av.	w/o Chino Corona Rd.	75.0	75.1	0.2	Yes	No
31	Pine Av.	w/o W. Preserve Loop	72.5	72.8	0.3	Yes	No
32	Pine Av.	w/o E. Preserve Loop	74.6	74.7	0.2	Yes	No
33	Pine Av.	w/o Hellman Av.	74.5	74.7	0.2	Yes	No
34	Schleisman Rd.	w/o Archibald Av.	72.6	72.8	0.2	Yes	No

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use. Values rounded to the nearest one-tenth.
[2]Significance Criteria (refer to EIR Subsection 4.11.5)
"n/a" = Roadway segment does not represent a paved and/or fully constructed roadway under the given scenario.
Source: (Urban Crossroads, 2020a, Table 7-8)

Table 4.11-10 Horizon Year (2040) Traffic Noise Levels

ID	Road	Segment	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?[2]
			No Project	With Project	Project Addition		
1	Central Av.	n/o El Prado Rd.	75.0	75.0	0.0	No	No
2	Central Av.	s/o El Prado Rd.	75.9	75.9	0.0	No	No
3	El Prado Rd.	n/o Kimball Av.	75.3	75.3	0.0	No	No
4	Euclid Av.	n/o Walnut Av.	81.2	81.4	0.2	No	No
5	Euclid Av.	n/o Riverside Dr.	80.5	80.8	0.3	Yes	No
6	Euclid Av.	n/o Chino Av.	80.9	81.1	0.3	Yes	No
7	Euclid Av.	n/o Schaefer Av.	80.9	81.2	0.3	Yes	No
8	Euclid Av.	n/o Edison Av.	81.1	81.4	0.3	Yes	No
9	Euclid Av.	n/o Eucalyptus Av.	80.7	81.0	0.3	Yes	No
10	Euclid Av.	n/o Merrill Av.	80.7	81.0	0.3	Yes	No
11	Euclid Av.	s/o Merrill Av.	80.9	81.2	0.3	No	No
12	Euclid Av.	n/o Kimball Av.	80.9	81.2	0.3	No	No
13	Euclid Av.	n/o Bickmore Av.	79.6	80.1	0.5	No	No
14	Archibald Av.	n/o Limonite Av.	80.6	80.6	0.0	Yes	No
15	Archibald Av.	s/o Limonite Av.	73.2	73.2	0.0	Yes	No
16	Archibald Av.	s/o Schleisman Rd.	72.0	72.1	0.0	Yes	No
17	Kimball Av.	w/o Mountain Av.	75.4	75.4	0.1	No	No
18	Kimball Av.	w/o Euclid Av.	76.6	76.6	0.0	No	No
19	Kimball Av.	e/o Euclid Av.	75.4	75.5	0.1	No	No
20	Kimball Av.	w/o Rincon Meadows Av.	75.0	75.2	0.1	Yes	No
21	Kimball Av.	e/o Rincon Meadows Av.	74.9	75.0	0.2	Yes	No
22	Kimball Av.	e/o Mill Creek Av.	74.4	74.6	0.2	Yes	No
23	Kimball Av.	e/o Main St.	74.2	74.4	0.2	Yes	No
24	Kimball Av.	e/o Flight Av.	73.5	73.7	0.2	Yes	No
25	Limonite Av.	w/o Archibald Av.	73.0	73.1	0.1	No	No
26	Limonite Av.	e/o Archibald Av.	75.0	75.1	0.1	Yes	No
27	Pine Av.	w/o El Prado Rd.	74.2	74.9	0.7	No	No
28	Pine Av.	w/o Euclid Av.	73.8	73.9	0.1	No	No
29	Pine Av.	e/o Euclid Av.	75.5	75.6	0.1	Yes	No
30	Pine Av.	w/o Chino Corona Rd.	75.4	75.4	0.1	Yes	No
31	Pine Av.	w/o W. Preserve Loop	72.7	72.8	0.1	Yes	No
32	Pine Av.	w/o E. Preserve Loop	74.8	74.8	0.1	Yes	No
33	Pine Av.	w/o Hellman Av.	74.7	74.8	0.1	Yes	No
34	Schleisman Rd.	w/o Archibald Av.	73.4	73.5	0.1	Yes	No

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and he property line of the nearest adjacent land use.
Values rounded to the nearest one-tenth.
[2]Significance Criteria (refer to as listed in EIR Subsection 4.11.5)
Source: (Urban Crossroads, 2020a, Table 7-9)

2. Excess Fill Dirt Hauling Traffic Noise

❑ **Traffic Noise During Daytime Hours**

Table 4.11-11, *Excess Fill Dirt Hauling Daytime Noise Levels –Excess Fill Dirt Site Nos. 1 through 5*, summarizes the noise conditions along affected Project Study Area roadway segments during potential daytime hauling activities from the excess fill dirt sites.

Table 4.11-11 Excess Fill Dirt Hauling Daytime Noise Levels –Excess Fill Dirt Site Nos. 1 through 5

ID	Road	Segment	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?[2]
			No Project	With Project	Project Addition		
29	Pine Av.	e/o Euclid Av.	73.9	75.1	1.2	Yes	No
30	Pine Av.	w/o Chino Corona Rd.	74.5	75.6	1.1	Yes	No
31	Pine Av.	w/o W. Preserve Loop	71.9	73.8	1.9	Yes	Yes
32	Pine Av.	w/o E. Preserve Loop	74.0	75.2	1.2	Yes	No
33	Pine Av.	w/o Hellman Av.	74.0	75.2	1.2	Yes	No
35	Chino Corona Rd.	s/o Pine Av.	67.6	73.3	5.7	Yes	Yes
36	Chino Corona Rd.	e/o Cucamonga Av.	66.4	72.5	6.1	Yes	Yes
37	Hellman Av.	s/o Pine Av.	71.6	73.8	2.2	Yes	Yes

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and he property line of the nearest adjacent land use.
Values rounded to the nearest one-tenth.
[2]Significance Criteria (refer to EIR Subsection 4.11.5)
Source: (Urban Crossroads, 2020a, Table 7-12)

As shown, the Project's traffic noise from soil export activities at Excess Fill Dirt Site Nos. 3 through 5 during Project construction would exceed the applicable significance thresholds for the following four roadway segments under the E+P daytime hours (i.e., 7:00 a.m. to 3:00 p.m.) scenario *if* the existing and future noise-sensitive land uses shown to be significantly impacted are built and occupied at the time of soil import/export activities. If these sites are not occupied with residential uses at the time of soil export activities, no impacts to noise-sensitive receptors would occur. Notwithstanding, the Project's contribution of off-site traffic noise at the following locations would result in a substantial, temporary increase in daytime ambient noise levels for which mitigation is required. (Urban Crossroads, 2020a, p. 63) The traffic noise impact locations from excess fill dirt hauling activities during daytime peak hours are shown on Figure 4.11-4, *Excess Fill Dirt Hauling Traffic Noise Impact Locations – Daytime Peak Hours*.

- Pine Avenue west of West Preserve Loop (Excess Fill Dirt Site No. 5);
- Chino Corona Road south of Pine Avenue (Excess Fill Dirt Site Nos. 3 and 4);
- Chino Corona Road east of Cucamonga Avenue (Excess Fill Dirt Site No. 4); and

- Hellman Avenue south of Pine Avenue (Excess Fill Dirt Site No. 5).

❑ **Traffic Noise During Nighttime Hours**

Table 4.11-12, *Excess Fill Dirt Hauling Nighttime Noise Levels – Fill Dirt Site Nos. 1 through* 5, summarizes the noise conditions along affected Project Study Area roadway segments during potential nighttime hauling activities from the excess fill dirt sites.

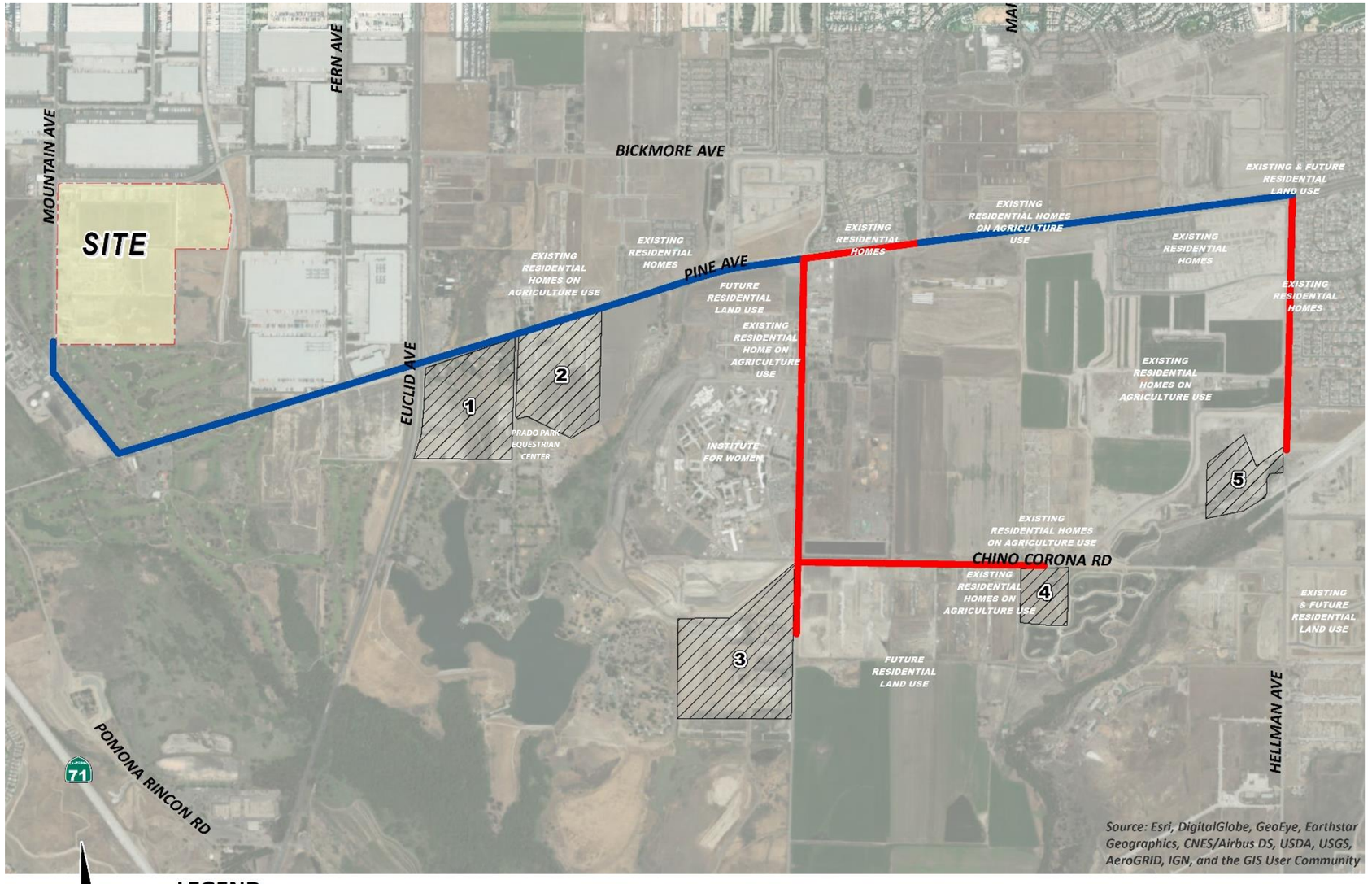
Table 4.11-12 Excess Fill Dirt Hauling Nighttime Noise Levels – Fill Dirt Site Nos. 1 through 5

ID	Road	Segment	CNEL at Adjacent Land Use (dBA)[1]			Noise-Sensitive Land Use?	Threshold Exceeded?[2]
			No Project	With Project	Project Addition		
29	Pine Av.	e/o Euclid Av.	73.9	79.1	5.2	Yes	Yes
30	Pine Av.	w/o Chino Corona Rd.	74.5	79.3	4.8	Yes	Yes
31	Pine Av.	w/o W. Preserve Loop	71.9	78.6	6.7	Yes	Yes
32	Pine Av.	w/o E. Preserve Loop	74.0	79.2	5.2	Yes	Yes
33	Pine Av.	w/o Hellman Av.	74.0	79.1	5.1	Yes	Yes
35	Chino Corona Rd.	s/o Pine Av.	67.6	80.7	13.1	Yes	Yes
36	Chino Corona Rd.	e/o Cucamonga Av.	66.4	79.9	13.5	Yes	Yes
37	Hellman Av.	s/o Pine Av.	71.6	79.1	7.5	Yes	Yes

[1]The CNEL is calculated at the boundary of the right-of-way of each roadway and he property line of the nearest adjacent land use.
Values rounded to the nearest one-tenth.
[2]Significance Criteria (refer to EIR Subsection 4.11.5)
Source: (Urban Crossroads, 2020a, Table 7-14)

As shown, the Project's traffic noise from soil export activities at Excess Fill Dirt Site Nos. 2 through 5 during construction would exceed the applicable significance thresholds for the following eight roadway segments under the E+P nighttime hours (i.e., 6:00 p.m. to 2:00 a.m.) scenario *if* the existing and/or future noise-sensitive land uses shown to be significantly impacted are built and occupied at the time of soil import/export activities. If these sites are not occupied with residential uses at the time of soil export activities, no impacts to noise-sensitive receptors would occur. Notwithstanding, the Project's contribution of off-site traffic noise at the following locations would result in a substantial, temporary increase in nighttime hour ambient noise levels for which mitigation is required. (Urban Crossroads, 2020a, p. 65) The traffic noise impact locations from excess fill dirt hauling activities during nighttime hours is shown on Figure 4.11-5, *Excess Fill Dirt Hauling Traffic Noise Impact Locations – Nighttime Hours.*

- Pine Avenue east of Euclid Avenue (Excess Fill Dirt Site Nos. 2 through 5);
- Pine Avenue west of Chino Corona Road (Excess Fill Dirt Site Nos. 2 through 5);
- Pine Avenue west of West Preserve Loop (Excess Fill Dirt Site No. 5);

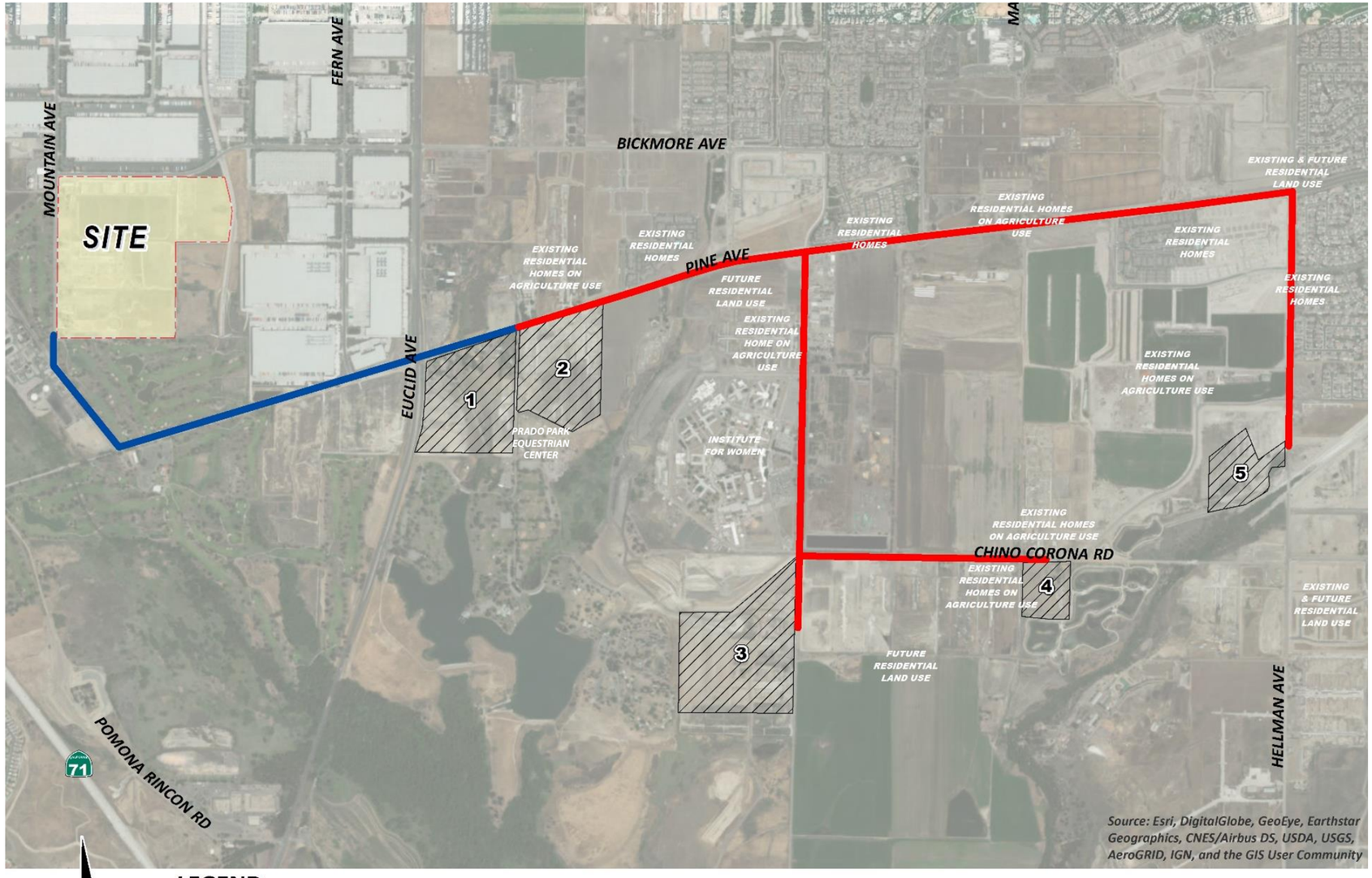


Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-4

EXCESS FILL DIRT HAULING TRAFFIC NOISE IMPACT LOCATIONS - DAYTIME HOURS



Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-5

EXCESS FILL DIRT HAULING TRAFFIC NOISE IMPACT LOCATIONS – NIGHTTIME HOURS

- Pine Avenue west of East Preserve Loop (Excess Fill Dirt Site No. 5);
- Chino Corona Road south of Pine Avenue (Excess Fill Dirt Site Nos. 3 and 4);
- Chino Corona Road east of Cucamonga Avenue (Excess Fill Dirt Site No. 4); and
- Hellman Avenue south of Pine Avenue (Excess Fill Dirt Site No. 5).

Threshold b: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

A. Construction Analysis

Construction activities on the Project Site and/or Excess Fill Dirt Site Nos. 1 through 5 would utilize certain pieces of construction equipment that have the potential to generate vibration. Project construction-related vibration levels were calculated at the same 14 noise-sensitive receptor locations that were used in the construction noise analysis (refer to Figure 4.11-2). As mentioned previously under Threshold "a," Receptors R15 to R22 are open space receptor locations that are evaluated for indirect impacts such as noise and vibration in EIR Subsection 4.3, *Biological Resources*; therefore, these receptor locations are not evaluated herein. Table 4.11-13, *Project Construction Vibration Levels*, summarizes Project construction vibration levels at the modeled receptor locations. As shown in Table 4.11-13, all receptor locations in the vicinity of the Project Site and Excess Fill Dirt Site Nos. 1 through 5 would be exposed to vibration levels that fall below the applicable significance thresholds pursuant to the municipal codes of the City of Chino (0.05 in/sec RMS), City of Chino Hills (0.2 in/sec PPV), and/or City of Eastvale (0.0787 in/sec PPV). Accordingly, the Project would not expose people to or generate excessive groundborne vibration or groundborne noise levels during construction and a less-than-significant impact would occur.

B. Operational Analysis

Under long-term conditions, the operational activities of the proposed Project would not include or require equipment, facilities, or activities that would result in perceptible ground-borne vibration. Trucks would travel to and from the Project Site on surrounding roadways; however, vibration and groundborne noise levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces – as is expected on the Project Site and surrounding roadways – are expected to approach 0.004 in/sec peak-particle-velocity (PPV) and 0.003 in/sec root-mean-square (RMS) velocity at 25 feet; thus, Project-related operational vibration levels would be below the City of Chino's 0.05 in/sec RMS significance threshold, the City of Chino Hills' 0.2 inc/sec PPV significance threshold, and/or the City of Eastvale 0.0787 in/sec PPV significance threshold. (Urban Crossroads, 2020a, p. 3) Accordingly, the Project would not expose people to or generate excessive groundborne vibration or groundborne noise levels during long-term operation. Impacts are less than significant.

Table 4.11-13 Project Construction Vibration Levels

Receiver Location[1]	City	Shortest Distance to Const. Activity (Feet)	Receiver PPV Levels (in/sec)[2]					RMS Velocity Levels (in/sec)[3]	Threshold (in/sec)		Threshold Exceeded?[4]
			Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		PPV	RMS	
R1	Chino Hills	3,614'	0.0000	0.0000	0.0000	0.0001	0.0001	-	0.20	-	No
R2	Chino Hills	2,958'	0.0000	0.0000	0.0001	0.0001	0.0001	-	0.20	-	No
R3	Chino	167'	0.0002	0.0020	0.0044	0.0052	0.0052	0.004	-	0.05	No
R4	Chino	155'	0.0002	0.0023	0.0049	0.0058	0.0058	0.004	-	0.05	No
R5	Chino	351'	0.0001	0.0007	0.0014	0.0017	0.0017	0.001	-	0.05	No
R6	Chino	507'	0.0000	0.0004	0.0008	0.0010	0.0010	0.001	-	0.05	No
R7	Chino	673'	0.0000	0.0003	0.0005	0.0006	0.0006	0.000	-	0.05	No
R8	Chino	95'	0.0004	0.0047	0.0103	0.0120	0.0120	0.009	-	0.05	No
R9	Chino	108'	0.0003	0.0039	0.0085	0.0099	0.0099	0.007	-	0.05	No
R10	Chino	122'	0.0003	0.0032	0.0070	0.0083	0.0083	0.006	-	0.05	No
R11	Chino	171'	0.0002	0.0020	0.0042	0.0050	0.0050	0.004	-	0.05	No
R12	Chino	772'	0.0000	0.0002	0.0004	0.0005	0.0005	0.000	-	0.05	No
R11	Eastvale	282'	0.0001	0.0009	0.0020	0.0023	0.0023	-	0.0787	-	No
R12	Eastvale	1,425'	0.0000	0.0001	0.0002	0.0002	0.0002	-	0.0787	-	No

[1]Receptor locations are shown on EIR Figure 4.11-2.
[2]Based on the Vibration Source Levels of Construction Equipment included on Table 6-9 of *Technical Appendix L*.
[3]Vibration levels in peak-particle-velocity (PPV) are converted to root-mean-square (RMS) velocity using a 0.71 conversion factor identified in the Caltrans Transportation and Construction Vibration Guidance Manual, September 2013.
[4]Does the vibration exceed the maximum acceptable vibration threshold (refer to EIR Subsection 4.11.5)?
Source: (Urban Crossroads, 2020a, Table 10-9)

Threshold c: For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The entire Project Site is located outside of the 55 to 60 dBA CNEL contour of the Chino Airport; therefore, the Project would not expose people working on the Project Site to excessive noise levels. (Urban Crossroads, 2020a) There are no other airports in the Project vicinity that could subject the Project Site to excessive airport-related noise. Impacts would be less than significant.

4.11.7 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project Site and Excess Fill Dirt Site Nos. 1 through 5, and resulting from full General Plan buildout in the City of Chino, the City of Chino Hills, the City of Eastvale, and surrounding areas.

A. Construction-Related Noise

There are no known active or pending construction projects abutting the Project Site or the excess fill dirt sites that would overlap with the Project's proposed construction schedule and impact the same receptor location (Receptor R10) that has the potential to be impacted by noise from proposed excavation and soil hauling

activities at Excess Fill Dirt Site No. 4. Accordingly, there is no potential for Project-related construction activities to contribute to cumulatively considerable impacts to occupied sensitive receptor locations.

B. Stationary Noise

The analysis presented for Threshold "a" addresses the Project's contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in Table 4.11-7, the Project's noise contribution would not be perceptible to noise-sensitive receptors in the Project area during daytime or nighttime hours. The Project's permanent stationary noise impacts would not be cumulatively considerable.

C. Traffic Noise

The analysis presented for Threshold "a" evaluates the Project's operational traffic noise contribution within the vicinities of the Project Site and noise from soil export activities at Excess Fill Dirt Site Nos. 1 through 5. As summarized in Table 4.11-8 through Table 4.11-10, the Project's operational traffic noise contributions along study area roadways within the Project Site vicinity would not exceed applicable significance thresholds and, therefore, would not be cumulatively-considerable under near- or long-term cumulative conditions. However, the Project's traffic noise contributions along study area roadways during soil export activities at Excess Fill Dirt Site Nos. 2 through 5 (refer to Table 4.11-11 and Table 4.11-12) would exceed applicable significance thresholds and, therefore, would be cumulatively-considerable temporary noise impact under E+P daytime and E+P nighttime conditions.

D. Groundborne Vibration and Noise

During construction, the Project's peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project's vibration would be minimal.) Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project Site and Excess Fill Dirt Site Nos. 1 through 5 could occur on properties abutting these sites. There are no known active or pending construction projects abutting the Project Site or any of the excess fill dirt sites that would overlap with the Project's proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise.

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Trucks would travel to and from the Project Site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively-contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

E. Airport Noise

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no

potential to cumulatively contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project Site and the immediately surrounding area are not subject to substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels.

4.11.8 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively Considerable Impact. The Project would expose one noise-sensitive receptor location (i.e., Receptor R10, the location of one existing home and the planned location of future residential community) abutting the northwest corner of Excess Fill Dirt Site No. 4 to excessive construction noise *only if* this location is occupied by residents at the time proposed dirt excavation and export activity occurs. In addition, the Project's traffic noise contributions during construction-related soil export activities at the excess fill dirt sites would expose noise-sensitive receptors located along the haul route to noise levels exceeding established noise level standards.

Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.

Threshold c: Less-than-Significant Impact. The Project Site is not located within an area exposed to high levels of noise from the Chino Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.

4.11.9 Mitigation

The following mitigation measure would reduce noise from Project construction during soil import/export activity.

MM 4.11-1 Prior to issuance of any grading permits or other approvals involving the excavation and/or export of earth materials at Excess Fill Dirt Site No. 4, the City of Chino Planning Division and City of Chino Engineering Division shall review and approve a construction management plan in accordance with City of Chino Municipal Code Section 20.23.210. The construction management plan shall be prepared outlining the noise reduction measures to be implemented during excavation and export activities at Excess Fill Dirt Site No. 4 *only if* the location of Receptor R10 (an existing residential home south of Chino Corona Road and west of Excess Fill Dirt Site No. 4 and the planned location of a future master-planned residential community) is occupied with residents at the time of the proposed construction activities at Excess Fill Dirt Site No. 4. Project contractors shall be required to comply with at least one of the abatement measures listed below ensure that the location of Receptor R10 would not be exposed to construction noise that exceeds 65 dBA Leq, or implement an alternative approved by the City of Chino that provides an equivalent level of noise attenuation, and maintain written records of such compliance that can be inspected by the City of Chino upon request.

a) An eight (8)-foot-tall construction noise barrier shall be constructed along the northwest corner of Excess Fill Dirt Site No. 4 abutting property with an occupied residential structure. The location and maximum extent of the construction noise barrier is illustrated

on EIR Figure 4.11-6, *Construction Noise Mitigation*, and Exhibit ES-C from the report titled "Majestic Chino Heritage Noise Impact Analysis," prepared by Urban Crossroads and dated August 12, 2019. The construction noise barrier shall meet the following minimum standards:

i.) The temporary noise barrier shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to a construction site perimeter fence or equivalent temporary fence posts or barrier materials;

ii.) The noise barrier must be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired; and

iii.) The noise control barrier and associated elements shall be completely removed upon the conclusion of the construction activity; or

b) The construction contractor shall install sound dampening mats or blankets capable of a minimum 5 dBA noise reduction to the engine compartments of heavy mobile equipment operating within the portion of the Project's off-site development area that abuts the intersection of Comet Avenue/County Road and Chino Corona Road. The sound dampening mats can be made from commercially-available sound dampening materials, including but not limited to, polyurethane foam and vinyl sheeting; or

c) Construction contractors shall prohibit the use of large construction equipment (greater than 80,000 pounds) within 170 feet of any occupied residential structure at the location of Receptor R10. Construction contractors shall use small rubber-tired or alternative equipment within this buffer area during construction.



Source(s): Urban Crossroads (11-05-2019)

Not to Scale

Figure 4.11-6

CONSTRUCTION NOISE MITIGATION

4.11.10 Significance of Impacts After Mitigation

Threshold a: Significant Unavoidable Impact. Implementation of Mitigation Measure MM 4.11-1 would require the Project Applicant to implement numerous measures to reduce noise at Excess Fill Dirt Site No. 4 during construction. MM 4.11-1 would successfully reduce the Project's construction noise to less-than-significant levels at Receptor R10 in the vicinity of Excess Fill Dirt Site No. 4. With implementation of the required mitigation, the Project's construction noise would not generate noise levels in excess of City of Chino standards and would not result in a substantial temporary increase in ambient noise levels.

However, the Project's short-term soil import/export activities would generate significant and unavoidable traffic noise impacts because the haul route passes noise-sensitive uses and feasible mitigation measures are not available to mitigate the short-term noise associated with hauling. During daytime soil import/export activities, on-road hauling would create a substantial temporary increase in ambient noise levels on roads within the vicinity of Excess Fill Dirt Site Nos. 3 through 5. Additionally, on-road hauling from nighttime hour soil import/export activities would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 2 through 5. Feasible mitigation measures are not available to address the Project's daytime and nighttime traffic-related noise impacts during earthwork hauling activities because it is not practical or feasible to construct temporary noise barriers along roads segments in these locations that are capable of attenuating the noise levels to less than significant, given the length of the road segments and the physical features present along the road segments. Elongating the construction schedule to reduce the number of haul trips per day would reduce but not eliminate the impact, and elongating the schedule would then expose the receptor locations to a longer duration of hauling traffic.

4.12 TRANSPORTATION

This Subsection is based on a traffic impact analysis (TIA) report prepared by Urban Crossroads, titled "Majestic Chino Heritage Traffic Impact Analysis, City of Chino" and dated November 6, 2019, which is included as *Technical Appendix M1* to this EIR (Urban Crossroads, 2019e). The TIA was prepared in accordance with the City of Chino's traffic study requirements, and also, where relevant, addresses requirements of the County of San Bernardino Congestion Management Program and the California Department of Transportation's traffic study guidelines. The TIA is supplemented by a memorandum titled "Majestic Chino Heritage Truck Route Memorandum" prepared by Urban Crossroads and dated March 31, 2020; this memorandum is included as *Technical Appendix M2* to this EIR (Urban Crossroads, 2020b).

4.12.1 STUDY AREA DESCRIPTION

The geographic area that was evaluated for Project-related effects to the transportation and circulation network is defined in the following subsections (hereafter referred to as the "Project Study Area" or "Study Area").

A. Intersections

Pursuant to its traffic study guidelines, the City of Chino requires a performance analysis of intersections that would receive 50 or more peak hour trips from a development project. A "peak hour trip" is defined as a trip that occurs in the busiest four 15-minute increments between the hours of 7:00 AM and 9:00 AM (AM peak hour) or between the hours of 4:00 PM and 6:00 PM (PM peak hour) (Urban Crossroads, 2019e, p. 62). The "50 peak hour trip" criteria utilized by the City of Chino is consistent with the methodology utilized by many other CEQA lead agency and government jurisdictions, including San Bernardino County, Riverside County, and the City of Eastvale, and generally represents a bright-line threshold at which a single development project would have the potential to substantially affect the performance of a typical intersection. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area. (Urban Crossroads, 2019e, p. 5)

Forty-three (43) intersections are located within the Project Study Area based on the 50 peak hour trip criterion. These intersections are identified on Figure 4.12-1, *Study Area Intersection Locations*, and are listed in Table 4.12-1, *Study Area Intersection Locations*. The Study Area includes intersections under the jurisdictions of the cities of Chino, Ontario, Chino Hills, and Eastvale, as well as the California Department of Transportation (Caltrans). (Urban Crossroads, 2019e, pp. 4-5)

B. Freeways

All freeway mainline segments and ramps are under the jurisdiction of Caltrans. Caltrans typically requests that CEQA lead agencies include an analysis of potential impacts to freeway mainline segments when a proposed project is calculated to contribute 50 or more two-way peak hour trips to a State highway facility that is experiencing noticeable delay and approaching unstable traffic flow. Because impacts to freeway segments dissipate with distance from the point of entry to the State Highway System (i.e., at ramps receiving a project's traffic), Caltrans has indicated that when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the State Highway System. Thus, Caltrans does not require a project's entire vehicular travel path on State highway facilities to be studied.

Notwithstanding, in order to present a comprehensive analysis, the Project Study Area includes all freeway segments adjacent to the points of entry to the State highways that are located near the Project Site (i.e., SR-60 and SR-71), even where the Project is calculated to contribute fewer than 50 peak hour trips. The 31 freeway mainline segments and freeway merge/diverge ramp junctions located in the Project Study Area are listed in Table 4.12-2, *Study Area Freeway Mainline Segments and Freeway Merge/Diverge Ramp Junctions*. (Urban Crossroads, 2019e, pp. 7-8)

4.12.2 EXISTING CONDITIONS

The Project Site is located at the southeast corner of Mountain Avenue and Bickmore Avenue, in the southeastern portion of the City of Chino. The Project Site is located approximately 2.4 roadway miles southeast of the Central Avenue on/off-ramp to State Route 71 (SR-71), and approximately 6.0 roadway miles south of the Euclid Avenue on/off-ramp to State Route (SR-60) (Google Earth Pro, 2019).

A. Existing Local Roadway Conditions

Weekday AM and PM peak hour traffic count data was collected at Study Area intersections and roadway segments in January 2019. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1 of *Technical Appendix M*. On the dates that traffic counts were collected, there were no atypical traffic conditions (e.g. construction activity or detour routes) and nearby schools were in session and operating on normal schedules. (Urban Crossroads, 2019e, p. 62)

The traffic count data includes a tabulation of passenger cars, 2-axle trucks, 3-axle trucks, and 4-or-more axle trucks. Larger vehicles take up more space on the roadway and take longer to accelerate and decelerate than smaller, passenger vehicles; therefore, converting larger vehicle into passenger car equivalents (PCEs) allows for the real-world effect that larger vehicles have on roadways to be accurately reflected in the TIA and for traffic to be represented as a standardized unit. For purposes of this analysis, a PCE factor of 1.5 is applied to 2-axle truck trips, 2.0 is applied to 3-axle truck trips, and 3.0 is applied to 4-or-more-axle truck trips. These PCE factors follow the recommendations of the *San Bernardino County Congestion Management Plan (CMP)*. (Urban Crossroads, 2019e, p. 62)

Existing weekday average daily traffic (ADT) volumes on local roadways throughout the Project Study Area are shown on Figure 4.12-2, *Existing Average Daily Traffic (PCE)*. Existing AM and PM peak hour intersection volumes are shown on Figure 4.12-3, *Existing Peak Hour Intersection Volumes (PCE)*. Except where specifically noted, all of the vehicle trips/traffic volumes illustrated on Figure 4.12-2 and Figure 4.12-3 and presented elsewhere in this EIR Subsection are shown in terms of PCE.

Existing peak hour traffic performance at the 43 existing Study Area intersections is summarized in Table 4.12-3, *Existing Intersection Levels of Service*, and was calculated using the analysis methodologies presented later in this Subsection (refer to Subsection 4.12.4). As shown in Table 4.12-3, all intersections in the Study Area operate at acceptable LOS (i.e., LOS D or better) during peak hours under existing conditions, with the exception of the following intersections (Urban Crossroads, 2019e, p. 64):

- Central Avenue/El Prado Road (Intersection #7) – LOS E in the PM peak hour;

- El Prado Road/Kimball Avenue (Intersection #8) – LOS F in the PM peak hour;
- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – LOS E in the PM peak hour;
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30) – LOS E in the PM peak hour;
- Hellman Avenue/Kimball Avenue (Intersection #40) – LOS F in the AM and PM peak hours; and
- Archibald Avenue/Schleisman Road (Intersection #43) – LOS F in the AM peak hour.

B. Existing Traffic Signal Warrants Analysis

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following study area intersections currently warrant a traffic signal for Existing (2019) traffic conditions: (Urban Crossroads, 2019e, p. 71)

- El Prado Road & Mountain Avenue (#14)
- El Prado Road & Pine Avenue (#15)
- Flight Avenue & Kimball Avenue (#38)

However, all three intersections are currently operating at an acceptable LOS with current traffic controls and the installation of a traffic signal does not appear necessary with respect to peak hour operations. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3 to the Project's TIA (*Technical Appendix M*). (Urban Crossroads, 2019e, p. 71)

C. Existing Freeway Conditions

Freeway mainline segment and interchange traffic volume data was obtained from Caltrans' Performance System (PeMS) website in January 2019. Data was collected for a period of three consecutive days and the maximum value observed within this three-day period is utilized as the baseline for the weekday, peak hour conditions. Actual vehicles, as opposed to PCE volumes, were used to calculate freeway density and the corresponding LOS/ramp queuing summaries in accordance with industry-standard methodology for freeway facilities (i.e., Transportation Research Board's *Highway Capacity Manual*, *HCM*) (Urban Crossroads, 2019e, p. 34). Table 4.12-2 illustrates weekday, peak hour traffic volumes (actual vehicles) along freeway facilities in the Study Area.

1. Existing Freeway Facility Analysis

The peak hour LOS for each freeway mainline segment and merge/diverge ramp junction in the Study Area is summarized in Table 4.12-4, *Existing Freeway Facility Levels of Service*. Peak hour operations along freeway mainline segments and merge/diverge ramp junctions in the Study Area were calculated using the analysis methodologies presented in Subsection 4.12.4. As summarized in Table 4.12-4, the SR-71 and SR-60 freeway segments and merge/diverge ramp junctions analyzed by the Project's TIA were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing (2019) traffic conditions, with exception of the following diverge ramp junction (Urban Crossroads, 2019e, p. 71):

- SR-60 Freeway Westbound, Euclid Avenue (SR-83) Off-Ramp (#26) – LOS E AM and PM peak hours

2. Existing Off-Ramp Queuing Analysis

The existing peak hour queuing analysis results for freeway ramps in the Study Area are summarized in Table 4.12-5, *Existing Peak Hour Freeway Off-Ramp Queuing Summary*. The peak hour off-ramp queuing analysis was calculated using the analysis methodologies presented in Subsection 4.12.4. As shown in Table 4.12-5, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. (Urban Crossroads, 2019e, p. 71)

D. Existing Mass Transit

The Project Study Area is served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County. No transit lines serve the Project Site or the immediate surrounding area under existing conditions. (Urban Crossroads, 2019e, p. 62)

E. Existing Pedestrian and Bicycle Facilities

Field observations conducted by Urban Crossroads in March 2019 indicate nominal pedestrian and bicycle activity within the vicinity of the Project Site (Urban Crossroads, 2019e, p. 49). Under existing conditions, there is a sidewalk on the north side of Bickmore Avenue, on the opposite side of the street from the Project Site's frontage, and an approximately 270-foot long sidewalk segment on the west side of Mountain Avenue, on the opposite side of the Project Site's frontage, extending south from the Mountain Avenue and Bickmore Avenue intersection (Urban Crossroads, 2019e, Exhibit 3-15). In addition, there are planned Class I bike lanes along Pine Avenue and proposed Class II bike lanes along Euclid Avenue within the vicinity of the Project Site; however, there are no existing or proposed bicycle facilities on or abutting the Project Site (Urban Crossroads, 2019e, Exhibit 3-12).

F. Existing Airport Facilities

The Project Site is located less than 1.6 miles southwest of the nearest runway at the Chino Airport and is located within the Airport's Airport Influence Area (AIA). At present, there is no current Airport Land Use Compatibility Plan (ALUCP) in place that addresses the Chino Airport, as the 1991 adopted plan does not reflect the current Airport Master Plan for this facility. As previously shown on Figure 2-5, *Chino Airport Safety Zone* (refer to EIR Section 2.0, *Environmental Setting*), the entire Project Site is located within Airport Safety Zone II. Within Safety Zone II, the General Plan and the 1991 ALUCP strongly discourage residential land uses and recommend that non-residential uses in enclosed structures be limited to no more than an average of 25 persons per acre. (Chino, 2010a, Figure LU-4; ALUC, 1991, Figure III-7 and p. 3-8)

The Project Site also is located approximately 7.4 miles southwest of the nearest runway at the Ontario International Airport. The Project Site is not located within the AIA for the Ontario Airport, and as such would not be exposed to airport safety hazards associated with operations at the Ontario Airport (Ontario, 2011, Map 2-1; Google Earth Pro, 2019).

4.12.3 Applicable Environmental Plans, Policies, and Regulations

A. Local Plans, Policies, and Regulations

1. SCAG Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project Site is within SCAG's regional authority. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* with goals to: 1) preserve the existing transportation system; 2) expand the regional transit system; 3) expand passenger rail; 4) improve highway and arterial capacity; 5) manage demands on the transportation system; 6) optimize the performance of the transportation system; 7) promote forms of active transportation; 8) strengthen the regional transportation network for goods movement; 9) leverage technology; 10) improve airport access; and 11) focus new growth around transit. (SCAG, 2016, pp. 6-8) The RTP/SCS is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. The draft 2020-2045 RTP/SCS (also referred to as "Connect SoCal") has not yet been adopted at the time of preparing this EIR; therefore, the 2016-2040 RTP/SCS would be the applicable adopted plan for the Project as evaluated herein.

2. San Bernardino County Congestion Management Program

The *San Bernardino County Congestion Management Program* (CMP) was prepared by the San Bernardino Associated Governments (SANBAG). The intent of the CMP is to create a link between land use, transportation, and air quality planning decisions and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The San Bernardino CMP was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. The following intersections in the Project Study Area are part of the San Bernardino CMP roadway network (Urban Crossroads, 2019e, pp. 4-5):

- Euclid Avenue/SR-60 Westbound Ramps (Intersection #19)
- Euclid Avenue/SR-60 Eastbound Ramps (Intersection #20)
- Euclid Avenue/Walnut Avenue (Intersection #21)
- Euclid Avenue/Riverside Drive (Intersection #22)
- Euclid Avenue/Edison Avenue (Intersection #25)

In addition, there are three *San Bernardino CMP* network freeways located within the Project vicinity: SR-60, SR-71, and SR-83 (SANBAG, 2016, Figure 2-1).

3. San Bernardino County Measure "I"

Measure "I," a one-half of one percent sales tax on retail transactions, was approved by San Bernardino County voters in 1989 and extended by County voters in 2004 to remain effective through the year 2040. The revenue

generated by Measure "I" is to be used to fund transportation projects including, but not limited to, roadway improvements, commuter rail, public transit, and other identified improvements. Measure "I" also required that a local traffic impact fee be created to ensure that development projects are paying a fair share for transportation projects from which they would benefit (see discussion of "City of Chino Development Impact Fee (DIF) Program," below). Revenues collected through local traffic impact fee programs are used in tandem with regional Measure "I" revenues to fund projects identified in the SANBAG Development Mitigation Nexus Study (included as Appendix G to the *San Bernardino County CMP*). (Urban Crossroads, 2019e, p. 184)

4. City of Chino Development Impact Fee (DIF) Program

The City of Chino created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The identification of specific roadway and intersection improvement projects and the timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. (Urban Crossroads, 2019e, pp. 183-184)

5. Cities of Chino, Ontario, Eastvale, Chino Hills, and Jurupa Valley General Plan Circulation Elements

The General Plans for the cities of Chino, Ontario, Eastvale, Chino Hills, and Jurupa Valley each contain a Circulation Element that is intended to guide the development of the local circulation system in a manner that is compatible with the respective General Plan Land Use Element. To help meet projected traffic demands and achieve balanced growth, each city has adopted specific goals and policies, which serve as the basis for their Circulation Element. Refer to Section 3 of *Technical Appendix M* for a detailed summary of the General Plan Circulation Elements for the cities of Chino, Ontario, Eastvale, and Jurupa Valley.

4.12.4 Traffic Impact Analysis Methodology

The traffic impact analysis provided in *Technical Appendix M* and summarized in this Subsection evaluates the Project's potential traffic impacts using the methodology described on the following pages.

A. Level of Service

The performance of roadway facilities is described using the term "level of service" (LOS). LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. In 2013, the California Legislature passed Senate Bill (SB) 743, which is intended to provide local governments with flexibility to balance the competition between the need to use the LOS metric for local traffic planning and the need to provide infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers. As a component of the State's revisions to the CEQA Guidelines in December 2018, lead agencies will be required to adopt Vehicle Miles Travelled (VMT) thresholds of significance by July 1, 2020 (CEQA Guidelines § 15064.3(c)). CEQA Guidelines § 15064.3(c) provides that a lead agency "may elect to be governed by the provisions" of the section immediately; otherwise, the section's provisions do not apply to local lead agencies until July 1, 2020. At the time the this EIR was prepared, the City of Chino in its capacity as Lead Agency, as

well as many surrounding local agencies in which the Project's traffic would circulate, use LOS as the criteria for evaluating a project's potential to conflict with General Plan objectives and policies regarding roadway performance.

Six LOS designations are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. Table 4.12-6, *Signalized Intersection LOS Thresholds*, and Table 4.12-7, *Unsignalized Intersection LOS Thresholds*, summarize typical operational conditions at signalized and unsignalized intersections for each LOS classification, respectively. (Urban Crossroads, 2019e, pp. 29-31)

B. Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes observed during weekday peak hour conditions. The following weekday peak hours were selected for analysis because these hours are typically experience the most traffic during a 24-hour period: AM peak hour, between 7:00 AM and 9:00 AM, and PM peak hour, between 4:00 PM and 6:00 PM. (Urban Crossroads, 2019e, p. 62)

At signalized intersections, peak hour performance is calculated using the methodology described in the Transportation Research Board's *HCM*. Intersection performance is based on the average control delay at each leg of the intersection. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.12-6. The traffic modeling and signal timing optimization software package Synchro (Version 10) was used to analyze signalized intersections capacity as specified in the HCM. (Urban Crossroads, 2019e, p. 30)

At unsignalized intersections, operations were evaluated using the methodology described in the HCM. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.12-7. (Urban Crossroads, 2019e, p. 31)

For a more detailed discussion on intersection capacity analysis methodology, refer to Subsection 2.2 of *Technical Appendix M*.

C. Freeway Analysis

1. Freeway Mainline Segment Analysis

For purposes of analysis, the freeway system in the Project Study Area has been divided into segments defined by the freeway-to-arterial interchange locations. Freeway mainline performance is based upon peak hour directional volumes, and the freeway segment analysis is based on the methodology described in the HCM and performed using HCS7 software. The performance measure used by Caltrans to calculate LOS along freeway mainlines is vehicle density. Density is expressed in terms of passenger cars per mile per lane. Table 4.12-8,

Freeway Mainline LOS Thresholds, summarizes the freeway segment LOS thresholds for each density range. (Urban Crossroads, 2019e, p. 34) For a more detailed discussion of freeway mainline segment analysis methodology, refer to Subsection 2.5 of *Technical Appendix M*.

2. Freeway Ramp Queuing Analysis

The traffic modeling software package Synchro is used to evaluate the performance of freeway ramps, in terms of vehicle queuing. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue, which represents the length of the queue during 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group. (Urban Crossroads, 2019e, p. 33) For more information on the freeway ramp queuing analysis methodology, refer to Subsection 2.4 of *Technical Appendix M*.

3. Freeway Ramp Junction Merge/Diverge Analysis

The freeway ramp junction merge/diverge analysis is based on the methodology recommended in the HCM and performed using HCS7 software. Although the HCM indicates the influence area for a freeway ramp merge/diverge junction is 1,500 feet, the Project's analysis was performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange to be consistent with Caltrans guidance. The results – reported in passenger car per mile per lane – are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each freeway ramp merge/diverge junction. (Urban Crossroads, 2019e, p. 35) Table 4.12-9, *Freeway Ramp Junction Merge/Diverge LOS Thresholds*, summarizes the freeway ramp junction merge/diverge LOS thresholds utilized in the analysis. For more information on the freeway ramp junction merge/diverge analysis methodology, refer to Subsection 2.6 of *Technical Appendix M*.

D. Cumulative Projects

CEQA Guidelines § 15130 requires that an EIR disclose the impact from the Project along with the incremental impacts from closely-related past, present, and reasonably foreseeable future projects (i.e., cumulative impact analysis). As previously described in EIR Subsection 4.0, *Environmental Analysis*, the Project's cumulative traffic impacts analysis utilizes a summary of projections approach plus a list of projects approach in order to provide a conservative analysis of cumulative impacts. Descriptive information about each project considered in the cumulative impact analysis can be found in EIR Section 4.0 and Subsection 4.6 of *Technical Appendix M*. (Urban Crossroads, 2019e, p. 98)

E. Future Year Background Traffic

1. Opening Year (2022) Background Traffic

Opening Year (2022) background traffic forecasts are based upon a background (or ambient) growth rate of 2 percent (%) per year above Existing (2019) conditions. This ambient growth factor is intended to approximate area-wide growth not accounted by the known cumulative development projects that were manually added to the traffic impact analysis (see Subsection 4.12.4D, above). (Urban Crossroads, 2019e, p. 88) According to regional population projections included in SCAG's *2016 RTP/SCS*, the City of Chino's population is projected

to increase 51.6% between 2012 and 2040, which corresponds to an approximately 1.5% annual population growth rate. Over this same time period, employment within Chino is projected to increase by 18.78 percent, which corresponds to an approximately 0.62 percent annual employment growth rate. Not every new person, household, and/or job in the City of Chino is expected to translate on a one-to-one basis with a new vehicle trip in the region; therefore, the 2% annual growth rate used for the Project's traffic analysis establishes a conservative estimate of the local growth rate. Based on the foregoing information, the 2% ambient growth rate utilized in the Project's traffic analysis is appropriate and would tend to overstate, as opposed to understate, potential impacts to traffic and circulation. (Urban Crossroads, 2019e, p. 88) For more information on the derivation of opening year background traffic forecasts, refer to Subsection 4.5 of *Technical Appendix M*.

2. Horizon Year (2040) Background Traffic

Horizon Year (2040) background traffic conditions were derived from the San Bernardino County Transportation Analysis Model (SBTAM). The SBTAM model reflects long-range land use and circulation network data from cities and public agencies within San Bernardino County and is consistent with SCAG's traffic model for the southern California region. The SBTAM model was supplemented and modified using industry-accepted procedures for model forecast refinement and smoothing rather than relying solely on SBTAM model defaults. The modifications to the SBTAM model were made to provide a conservative analysis of the Project's potential long-range traffic impacts under Horizon Year (2040) conditions that would overstate – as opposed to understate – the Project's potential traffic impacts as compared to the results had the SBTAM model defaults been used. Refer to Subsection 4.7 of *Technical Appendix M* for a detailed description of the refinements made to the SBTAM model for purposes of the Project's traffic impact analysis. (Urban Crossroads, 2019e, p. 98)

F. Future Year Roadway Conditions

1. Project-Related Roadway Improvements

The roadway improvements proposed by the Project are described in detail in EIR Section 3.0, *Project Description*. The construction of these roadway improvements is assumed throughout the analysis presented in *Technical Appendix M* and this Subsection.

2. Opening Year (2022) Roadway Conditions

The traffic analysis presented in *Technical Appendix M* and summarized in this Subsection assumes that the traffic facilities listed below would be in place for the Project's Opening Year (2022), in addition to the facilities in place under existing conditions (Urban Crossroads, 2019e, p. 141):

- Driveways and those facilities assumed to be constructed by future development to provide access to the Project Site, including the Project's proposed frontage improvements to Mountain Avenue and Bickmore Avenue; and
- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide access to the respective sites.

3. Horizon Year (2040) Roadway Conditions

The traffic analysis presented in *Technical Appendix M* and this Subsection for year 2040 assumes that the City of Chino, City of Ontario, City of Eastvale, City of Chino Hills, and the City of Jurupa Valley's roadway network, as described in the respective city's General Plan Circulation Elements, would be fully built-out, in addition to the improvements described in Subsections 4.12.4.F.1 and 4.12.4.F.2, above, and the following improvements below (Urban Crossroads, 2019e, p. 161):

- The Pine Avenue extension between El Prado Road and SR-71 Freeway is assumed to be in place; and
- Other parallel facilities, that although are not evaluated for the purposes of this analysis, are anticipated to be in place for Horizon Year traffic conditions and would affect the traffic patterns within the Study Area (e.g., The Preserve Specific Plan roadway network, extension of Kimball Avenue between Hellman Avenue and Archibald Avenue, etc.).

G. Fair Share Calculation

In instances where a "fair-share" monetary contribution toward the construction of roadway improvements is recommended to correct the circulation deficiency, the Project's fair-share contribution is determined by the equation presented below (Urban Crossroads, 2019e, p. 39). This calculation establishes a proportional nexus between the Project's impact and the recommended monetary contribution.

Project Fair Share % = Project Traffic ÷ (2040 with Project Total Traffic - Existing Traffic)

Refer to Subsection 2.9 of *Technical Appendix M* for more information on the methodology used to calculate fair share contribution toward future roadway improvements.

4.12.5 Basis for Determining Significance

The Project would result in a significant impact to the transportation system if the Project or any Project-related component would:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

d. Result in inadequate emergency access.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects that development projects could have on the circulation network.

The 2018 updates to the CEQA Guidelines included a new threshold requiring a determination of consistency with CEQA Guidelines Section 15064.3, which requires an analysis of Vehicle Miles Travelled (VMTs), in

accordance with California Senate Bill (SB) 743. LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. In 2013, SB 743 was passed, which is intended to balance the need for LOS for traffic planning with the need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes-competing needs. At full implementation of SB 743, traffic impacts will be evaluated using a VMT metric. CEQA Guidelines § 15064.3(c) provides that a lead agency "may elect to be governed by the provisions" of the section immediately; otherwise, the section's provisions do not apply to local lead agencies until July 1, 2020. At the time the EIR was released for public review, the City of Chino had not elected to implement § 15064.3 of the CEQA Guidelines. \

The specific criteria described below are utilized to evaluate the significance of potential traffic impacts under Threshold "a", and are based on applicable City of Chino, Ontario, Eastvale, Chino Hills, Jurupa Valley, Caltrans, and *San Bernardino County CMP* performance standards.

A. Significance Criteria

1. Intersections

The Project would result in a substantial conflict with General Plan objectives and policies that include LOS standards for local the circulation system if any of the following situations occur (Urban Crossroads, 2019e, pp. 36-39):

Cities of Chino, Eastvale, Chino Hills, and Jurupa Valley Facilities

- A direct impact would occur if the Project would cause an intersection to degrade from LOS D or better to LOS E or F.
- A cumulatively-considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS E or F) without the Project, and the Project contributes 50 or more peak hour trips to the affected intersection.

City of Ontario

- A direct impact would occur if the Project would cause an intersection to degrade from LOS E or better to LOS F.
- A cumulatively-considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS F) without the Project, and the Project contributes 50 or more peak hour trips to the affected intersection.

Caltrans and San Bernardino County CMP Facilities

- A direct impact would occur if the Project would cause a roadway facility (e.g., intersection, freeway mainline) to degrade from LOS D or better to LOS E or F.

- A cumulatively-considerable impact would occur if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS E or F) without the Project, and the Project contributes 50 or more peak hour trips to the affected roadway facility.

2. Freeway Mainline Segments and Ramp Junctions

For purposes of the analysis in this EIR Subsection, if a freeway mainline segment or ramp junction is projected to operate at an acceptable level of service (i.e., LOS "D" or better) without the Project and the Project would cause the facility to operate at an unacceptable level of service (i.e., LOS "E" or "F"), the Project's impact is considered direct and significant. If the facility would operate at a deficient LOS without the Project and the Project would contribute 50 or more peak hour trips to the affected segment and/or ramp, the addition of Project traffic would be considered cumulatively-considerable. (Urban Crossroads, 2019e, p. 39)

3. Freeway Ramp Queuing

Stacking distance on freeway ramps is acceptable if the required 95th percentile stacking distance is less than or equal to the stacking distance provided. Therefore, a significant direct or cumulative impact would occur if the 95th percentile stacking distance need is greater than the stacking distance provided. (Urban Crossroads, 2019e, pp. 33-34)

4.12.6 IMPACT ANALYSIS

Threshold a:	***Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?***

❑ Project Vehicle Trip Generation

Vehicle trip generation represents the amount of traffic that is associated with a development project. Determining traffic generation for a specific project is, therefore, based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed by a given project. (Urban Crossroads, 2019e, p. 79)

Project vehicle trips were calculated using the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) trip generation rate and vehicle mix (i.e., percentage of passenger cars trips vs. truck trips) for high-cube fulfillment center warehouse uses (ITE Code 155) and high-cube with cold storage warehouse uses (ITE Code 157). The Trip Generation Manual does not provide guidance on truck fleet mix (i.e., percentage of 2-axle, 3-axle, and 4-or-more axle trucks); therefore, assumptions regarding truck vehicle mix are based on recommendations provided by the South Coast Air Quality Management District (SCAQMD). (Urban Crossroads, 2019e, pp. 79, 82) Based on data from the ITE and the recommendations of the SCAQMD, operation of the proposed Project is calculated to generate 4,440 actual daily vehicle trips, including 3,616 daily passenger car trips and 824 daily truck trips (Urban Crossroads, 2019e, Table 4-2).

As noted earlier in this Subsection, PCE trips are a better metric to reflect the real-world effect of larger vehicles (i.e., trucks) on the circulation system than are actual vehicle trips. Additionally, the County of San Bernardino requires the use of PCE trips for traffic impact analyses for non-residential projects (SANBAG, 2016, Appendix B-2). Table 4.12-10, *Project Trip Generation Summary*, summarizes the Project's trip

generation with PCE factors applied. After applying the PCE factors, Project operation is calculated to generate 5,716 daily PCE trips, including 317 PCE trips in the AM peak hour and 404 PCE trips in the PM peak hour (Urban Crossroads, 2019e, Table 4-2). The Project's PCE trips are utilized throughout the analysis in *Technical Appendix M* and presented in this EIR Subsection to evaluate the Project's effect to the transportation and circulation network unless specifically noted.

For more information on the trip generation methodology, refer to Subsection 4.1 of *Technical Appendix M*.

❑ Project Vehicle Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by a development project's traffic. The trip distribution for Project traffic was developed based on anticipated passenger car and truck travel patterns to-and-from the Project Site. The traffic distribution pattern for Project truck trips is illustrated on Figure 4.12-4, *Project Truck Trip Distribution – Near Term* and Figure 4.12-6, *Project Truck Trip Distribution – Horizon Year*, and the traffic distribution pattern for Project passenger car trips is illustrated on Figure 4.12-5, *Project Passenger Car Trip Distribution – Near-Term* and Figure 4.12-7, *Project Passenger Car Trip Distribution – Horizon Year*. (Urban Crossroads, 2019e, p. 83)

Based on Project traffic generation and trip distribution patterns, Project operation would contribute the average daily traffic (ADT) to Study Area roadways and peak hour traffic volumes at Study Area intersections shown on Exhibits 4-5 through 4-10 of *Technical Appendix M* for Existing plus Project (E+P) (Building 1), E+P (Project Buildout), Opening Year Cumulative (2022), and Horizon Year (2040) traffic conditions .

Subsequent to preparation of the TIA, the City of Chino amended its adopted truck route map to eliminate the Kimball Avenue segment located between Mayhew Avenue and Hellman Avenue as a truck route. The Project's TIA assumed that 5-percent of the Project's Horizon Year (2040) truck traffic would utilize this segment, which corresponds to two AM peak hour truck trips, two PM peak hour truck trips, and 42 total daily truck trips. With the removal of Kimball Avenue as a City truck route, these trips would likely be re-distributed to Pine Avenue to provide an easterly connection to I-15. The addition of two additional AM and PM peak hour truck trips and 42 total daily truck trips would be inconsequential to roadway performance and capacity (2 or fewer trips per hour) and would not alter the findings and conclusions from the TIA. (Urban Crossroads, 2020b) Thus, the trip distribution patterns shown on Figure 4.12-6 are utilized to form the basis of the analysis in the TIA and this EIR and the conclusions presented in the TIA and herein remain accurate and valid.

❑ Analysis Scenarios

The Project traffic analysis addressed each of the scenarios listed below.

- Short-term Construction Conditions
- Existing (2019) plus Project Conditions
  - Existing plus Project (Building 1)
  - Existing plus Project (Project Buildout)
- Opening Year (2022)
- Horizon Year (2040)

The Short-term Construction conditions analysis evaluates the potential for the Project construction traffic to result in an adverse effect to the local roadway system.

The Existing (2019) plus Project (E+P) analysis evaluates the potential for Project traffic to directly impact the roadway system under the theoretical scenario where the Project is operational under existing conditions. The E+P scenario is presented to disclose direct impacts as required by CEQA. In the case of the proposed Project, the estimated time period between the commencement of the Project's CEQA analysis (2019) and Project buildout (2022) is three years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real-world conditions when the proposed Project is constructed and becomes operational. E+P traffic conditions have been evaluated for Building 1 only and Project Buildout (Building 1 + Building 2) in order to determine any potential off-site improvements that may be applicable to Building 1 only. Building 1 and Building 2 have been evaluated independently in the event that the Project Applicant constructs Building 1 before Building 2. However, constructing Building 2 prior to Building 1 would not result in any additional or different traffic deficiencies or improvement needs because Building 2 would generate less traffic than Building 1, as indicated in Table 4.12-10.

The Opening Year (2022) analysis includes an evaluation of traffic conditions at full buildout of the Project. The Opening Year analysis is utilized to determine the potential for Project traffic to cumulatively contribute to near-term circulation system deficiencies upon consideration of existing traffic + ambient growth + Project traffic + traffic from cumulative development projects.

The Horizon Year (2040) analysis is utilized to determine if planned improvements funded through local and regional transportation mitigation fee programs, such as the County of San Bernardino Development Impact Fee program or other approved funding mechanisms, can accommodate the Study Area's expected long-term growth at the target LOS identified in the Circulation Elements of relevant General Plans.

Refer to *Technical Appendix M* for a detailed discussion of the methodologies and assumptions for each analysis scenario, and a list of cumulative development projects considered in the analysis.

A. Impact Analysis for Short-Term Construction Traffic Conditions

1. Intersection Impact Analysis

During Project construction, traffic to-and-from the Project Site would be generated by activities such as soil export/import activities, construction worker trips, construction materials deliveries, and the use/delivery of heavy equipment.

As discussed in Section 3.0, *Project Description*, of this EIR, construction of the Project would require the import of fill dirt to the Project Site from up to five off-site excess fill dirt sites within the Prado Dam Reservoir Area in order to raise the proposed building footprints above elevation 566 feet AMSL. The five properties identified as prospective sources of the fill dirt for the Project Site range between approximately 1.3 and 4.2 roadway miles from the Project Site. The analysis in the Project's TIA and this Subsection conservatively considers a total number of haul trips that could transport up to 940,351 cubic yards of soil between the excess

fill dirt sites and the Project Site, although a lesser amount of fill dirt would actually be needed and fewer total haul trips would actually occur than analyzed herein. (Urban Crossroads, 2019e, p. 111)

Approximately 526 to 673 one-way haul truck loads would be required per day for the duration of soil import activities. Each truck would generate one inbound and one outbound trip, accounting for a total of two truck trips per load of material imported. Thus, a total of 1,052 to 1,346 haul trucks (two-way) per day would be generated, which translates to approximately 132-168 haul trips (two-way) per hour (see Table 4.12-11, *Import Operation by Excess Fill Dirt Sites*). (Urban Crossroads, 2019e, p. 111) Based on the haul routes between the Project Site and each of the excess fill dirt sites shown on Figure 4.12-8 and Figure 4.12-9, *Haul Routes Between the Project and Excess Fill Dirt Sites*, if hauling activity occurs during peak hours, the Project would result in a conflict with applicable General Plan performance objectives and policies for the local roadway network at the following nine intersections due to haul truck traffic during the soil import phase of construction (Urban Crossroads, 2019e, p. 113):

- El Prado Road/Mountain Avenue (Intersection #14)
- El Prado Road/Pine Avenue (Intersection #15)
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30)
- Rincon Meadows Avenue/Pine Avenue (Intersection #32)
- Mill Creek Avenue or Chino Corona Road/Pine Avenue (Intersection #34)
- Cucamonga Avenue/Chino Corona Road (Intersection #35)
- W. Preserve Loop/Pine Avenue (Intersection #36)
- E. Preserve Loop/Pine Avenue (Intersection #39)
- Hellman Avenue/Pine Avenue (Intersection #41)

In addition to trucks, heavy equipment also would be used on the Project Site and excess fill dirt sites during Project construction. As most heavy equipment is not authorized to be driven on public roadways, most equipment would be delivered and removed from the sites via flatbed trucks (sometimes with multiple pieces of equipment delivered to the sites on a single trip). As with the delivery of construction materials, the delivery of heavy equipment to the Project Site would not occur on a daily basis but would occur periodically throughout the construction phase based on need. As described in EIR Section 3.0, *Project Description*, up to eight pieces of heavy, off-road construction equipment are expected on the Project Site during any given phase of construction and up to five pieces of equipment would be used on each of the excess fill dirt sites; therefore, deliveries of construction equipment to the Project Site and excess fill dirt sites is not expected to generate substantial traffic. (Urban Crossroads, 2019e, p. 111)

Construction worker vehicular traffic would be substantially less than peak hour traffic volumes generated during Project operation (see Item "B," below) based on the number of employees anticipated at the Project Site and excess fill dirt sites during construction. It is anticipated that the majority of employees would arrive

to the Project Site and excess fill dirt sites outside of the peak hours. Construction employee parking is anticipated to occur interior to the properties and not on public streets. (Urban Crossroads, 2019e, p. 109)

Construction materials deliveries to the Project Site also would have a nominal effect to Project Study Area intersections. Construction materials would be delivered to the site throughout the construction phase – mostly outside of peak hours – based on need and would not occur on an everyday basis. The total number of daily, peak-hour construction materials deliveries to the Project Site is expected to be well below the number of trips during Project operation (see Item "B," below).

Notwithstanding the fact that daily construction equipment deliveries, material deliveries, and worker trips would generate nominal amounts of traffic, there is a potential that Project-generated traffic during the construction phase could conflict with applicable General Plan performance objectives and policies for the local roadway network if such traffic were to occur during the morning and evening peak hours and contribute more than 50 peak hour trips to any facility operating at a deficient level of service as shown in Table 4.12-3, or adding traffic to the nine intersections identified above that could receive substantial traffic during the Project's fill dirt import activities.

Based on the foregoing, the Project's construction traffic has the potential to contribute traffic to congested transportation facilities, resulting in a conflict with intersection performance criteria established by local agencies.

2. Freeway Impact Analysis

❑ Freeway Facilities

As disclosed in Table 4.12-4, all freeway mainline segments in the Project Study Area operate at acceptable LOS under existing conditions (i.e., without Project-related traffic). Based on the analysis of Opening Year (2022) conditions (provided below in Item "C"), the following freeway mainlines and merge/diverge locations are projected to operate at a deficient LOS under Project Buildout conditions:

- SR-60 Westbound, West of Euclid Avenue (SR-83) – LOS E in the AM and PM peak hours;
- SR-60 Westbound, Euclid Avenue (SR-83) at the Off-Ramp – LOS E in the AM and PM peak hours;
- SR-60 Westbound, East of Euclid Avenue (SR-83) – LOS E in the AM and PM peak hours; and
- SR-60 Eastbound, East of Euclid Avenue (SR-83) – LOS E in the AM peak hour.

Although the Project likely would contribute construction-related traffic to the above-listed facilities, Project construction traffic is anticipated to be substantially less than the traffic that would result from full buildout of the Project. Under Opening Year (2022) with Project Buildout conditions, Project operational traffic would contribute fewer than 50 peak hour trips to all of the above-listed facilities (Urban Crossroads, 2019e, Exhibit 4-8). Accordingly, it can be concluded that Project construction activities also would contribute fewer than 50 peak hour trips to the above-listed facilities. Furthermore, truck trips associated with soil import activities would occur on local roadways and would not affect any Study Area freeway facilities. Therefore, Project

construction traffic would not cause or contribute to a conflict with Caltrans performance criteria at Study Area freeway mainline segments or merge/diverge ramp junctions.

❑ Freeway Off-Ramp Queuing Locations

As shown in Table 4.12-5, all freeway off-ramp queuing locations in the Project Study Area do not experience queuing issues during the AM and PM peak hours under existing conditions. As indicated below under the analysis of Opening Year Cumulative (2022) conditions (refer to Item "C," below), Project operational traffic would not cause or contribute to any off-ramp queuing issues. Because Project construction traffic is expected to be less than the amount of traffic that would be generated by Project Buildout, Project construction traffic would not cause or contribute to a conflict with applicable performance criteria.

B. Impact Analysis for Existing plus Project Traffic Conditions

1. Intersection Impact Analysis

❑ Existing plus Project (Building 1)

Projected weekday ADT volumes and peak hour intersection volumes for E+P (Building 1) traffic conditions are shown on Figure 4.12-10 through Figure 4.12-12.

Table 4.12-12, *Existing plus Project (Building 1) Intersection Analysis*, summarizes the peak hour LOS at Project Study Area intersections under E+P (Building 1) conditions. As shown in Table 4.12-12, the Project would contribute more than 50 peak hour trips to the following Project Study Area intersections that are projected to operate at unacceptable LOS under E+P (Building 1) traffic conditions (Urban Crossroads, 2019e, p. 117).

- Central Avenue/El Prado Road (Intersection #7) – LOS E in the PM peak hour;
- El Prado Road/Kimball Avenue (Intersection #8) – LOS F in the PM peak hour; and
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30) – LOS E in the PM peak hour.

As previously disclosed in Subsection 4.12.2, the above-listed intersections operate at deficient LOS under Existing (2019) conditions. Accordingly, the Project would not cause the LOS deficiencies at these intersections and the Project would not directly conflict with General Plan objectives and policies that included LOS standards. Notwithstanding, the Project would contribute more than 50 peak hour trips to Intersections #7, #8, and #30 under E+P (Building 1) traffic conditions; therefore, the Project's cumulative contribution to LOS deficiencies that conflict with General Plan objectives and policies for the local roadway network would be subtantial.

Although the following intersections are projected to operate at a deficient LOS under E+P (Building 1) conditions, the Project would contribute fewer than 50 peak hour trips to these facilities with construction of Building 1 (only); thus, the Project's contribution to the LOS deficiency would not be substantial under E+P (Building 1) conditions (Urban Crossroads, 2019e, Exhibit 4-8):

- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – LOS E in the PM peak hour; and
- Archibald Avenue/Schleisman Road (Intersection #43) – LOS F in the AM peak hour.

❑ Existing plus Project (Project Buildout)

Projected weekday ADT volumes and peak hour intersection volumes for E+P (Project Buildout) traffic conditions are shown on Figure 4.12-13 through Figure 4.12-15.

Table 4.12-13, *Existing plus Project (Project Buildout) Intersection Analysis*, summarizes the peak hour LOS at Project Study Area intersections under E+P (Project Buildout) conditions. As shown in Table 4.12-13, the following Project Study Area intersections would operate at unacceptable LOS under E+P (Project Buildout) traffic conditions. (Urban Crossroads, 2019e, p. 127)

- Central Avenue/El Prado Road (Intersection #7) – LOS E in the PM peak hour;
- El Prado Road/Kimball Avenue (Intersection #8) – LOS F in the PM peak hour;
- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – LOS E in the PM peak hour;
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30) – LOS E in the PM peak hour; and
- Archibald Avenue/Schleisman Road (Intersection #43) – LOS F in the AM peak hour.

As shown in Table 4.12-3, the above-listed intersections operate at deficient LOS under existing conditions. Accordingly, the Project would not cause the LOS deficiencies at these intersections and the Project would not directly conflict with General Plan objectives and policies that included LOS standards. Notwithstanding, the Project would contribute more than 50 peak hour trips to all of the above-listed intersections under E+P (Project Buildout) traffic conditions; therefore, the Project's cumulative contribution to the LOS deficiencies would be substantial. These deficiencies conflict with General Plan objectives and policies that include LOS standards. (Urban Crossroads, 2019e, p. 127)

2. Traffic Signal Warrant Analysis

No additional Project Study Area intersections are anticipated to warrant a traffic signal under E+P (Building 1) or E+P (Project Buildout) conditions, beyond those previously warranted under Existing (2019) traffic conditions (Urban Crossroads, 2019e, p. 127). As indicated for Existing (2019) conditions, the following three intersections currently warrant a traffic signal:

- El Prado Road & Mountain Avenue (#14)
- El Prado Road & Pine Avenue (#15)
- Flight Avenue & Kimball Avenue (#38)

However, as shown in Table 4.12-12 and Table 4.12-13, the intersections of El Prado Road at Mountain Avenue (#14) and El Prado Road at Pine Avenue (#15) would operate at an acceptable LOS under E+P

(Building 1) and E+P (Project Buildout) conditions, and the installation of a traffic signal does not appear necessary with respect to peak hour operations. Additionally, the Project would not contribute more than 50 peak hour trips to the intersection of Flight Avenue at Kimball Avenue (#38) until Horizon Year (2040) conditions. As such, implementation of the Project would not warrant a traffic signal under E+P (Building 1) and E+P (Project Buildout) conditions. (Urban Crossroads, 2019e, p. 127)

3. Freeway Facility Analysis

As summarized in Table 4.12-14, *Existing plus Project Freeway Facility Analysis*, all Project Study Area freeway mainline segments would operate at acceptable LOS under E+P (Building 1) and E+P (Project Buildout) conditions. Additionally, as summarized in Table 4.12-14, all Project Study Area freeway ramps would have merge/diverge junctions that operate at acceptable LOS under E+P (Building 1) and E+P (Project Buildout) conditions, with the exception of SR-60 Westbound at Euclid Avenue (SR-83) Off-Ramp (#26), which would experience LOS E in both the AM and PM peak hours (consistent with Existing conditions). However, the Project would contribute fewer than 50 peak hour trips to the SR-60 Westbound Euclid Avenue (SR-83) Off-Ramp (#26) under both E+P (Building 1) and E+P (Project Buildout) conditions; therefore, the Project would not contribute substantial traffic to the LOS deficiency at this freeway ramp. (Urban Crossroads, 2019e, p. 127 and Exhibit 4-8)

The freeway mainline segments located in the Project Study Area include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Study Area. Rather, Project traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the Project Site increases. As such, Project traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, such as SR-91, I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at deficient LOS are in conflict with Caltrans objectives for freeway performance. However, because Project operation would contribute fewer than 50 peak hour trips to all congested freeway segment beyond the Project Study Area, the Project's traffic contribution would not substantially conflict with Caltrans LOS objectives for freeway performance.

4. Freeway Off-Ramp Queuing Analysis

Queuing analysis findings for E+P traffic conditions are presented on Table 4.12-15, *Existing plus Project Freeway Ramp Queuing Analysis*. As shown on Table 4.12-15, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with addition of Project traffic (for both Building 1 and Project Buildout traffic conditions). (Urban Crossroads, 2019e, p. 127)

C. Opening Year (2022) Impact Analysis

1. Intersection Impact Analysis

Projected weekday ADT volumes and peak hour intersection volumes for Opening Year (2022) traffic conditions are shown on Figure 4.12-16 through Figure 4.12-18.

As summarized in Table 4.12-16, *Opening Year (2022) Intersection Analysis*, the following Project Study Area intersections would operate at unacceptable LOS under Opening Year (2022) traffic conditions without the addition of Project traffic (Urban Crossroads, 2019e, p. 148):

- Central Avenue/El Prado Road (Intersection #7) – LOS E in the PM peak hour;
- El Prado Road/Kimball Avenue (Intersection #8) – LOS F in the PM peak hour;
- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – LOS E in the PM peak hour;
- Euclid Avenue (SR-83)/Edison Avenue (Intersection #25) – LOS E in the PM peak hour;
- Euclid Avenue (SR-83)/Merrill Avenue (Intersection #27) – LOS E in the PM peak hour;
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30) – LOS E in the PM peak hour;
- Archibald Avenue/Limonite Avenue (Intersection #42) – LOS E in the AM and PM peak hours; and
- Archibald Avenue/Schleisman Road (Intersection #43) – LOS F in the AM peak hour.

The Project would contribute more than 50 peak hour trips to the above-listed intersections during at least one peak hour; thus, the Project's contribution to the LOS deficiencies at the above-listed intersections under Opening Year (2022) conditions would represent a cumulatively-considerable conflict with General Plan objectives and policies for the local roadway network that include LOS standards.

Additionally, as shown in Table 4.12-16, the addition of Project traffic, traffic from ambient growth, and traffic from cumulative developments would degrade the projected LOS at the intersection of Euclid Avenue (SR-83) at Kimball Avenue (Intersection #28) from an acceptable LOS D in the PM peak hour to a deficient LOS E in the PM peak hour. However, as shown in Table 4.12-13, under E+P (Project Buildout) conditions this intersection is projected to operate at an acceptable LOS. As such, the deficient LOS at this intersection under Opening Year (2022) conditions is the result of ambient growth and traffic from cumulative developments, and not as a direct result of Project-related traffic.

2. Traffic Signal Warrant Analysis

There are no study area intersections anticipated to meet either peak hour or planning level (ADT) volume-based traffic signal warrants for Opening Year Cumulative (2022) Without and With Project traffic conditions, beyond those previously warranted under Existing (2019) traffic conditions. As previously indicated for Existing (2019) conditions, the following three intersections currently warrant a traffic signal: (Urban Crossroads, 2019e, p. 148)

- El Prado Road & Mountain Avenue (#14)
- El Prado Road & Pine Avenue (#15)
- Flight Avenue & Kimball Avenue (#38)

However, as shown in Table 4.12-16, the intersections of El Prado Road at Mountain Avenue (#14) and El Prado Road at Pine Avenue (#15) would operate at an acceptable LOS under Opening Year Cumulative (2022) Without and With Project traffic conditions, and the installation of a traffic signal does not appear necessary with respect to peak hour operations. Additionally, the Project would not contribute more than 50 peak hour trips to the intersections of Flight Avenue at Kimball Avenue (#38) until Horizon Year (2040) conditions. As such, implementation of the Project would not warrant any new traffic signals under Opening Year Cumulative (2022) With Project traffic conditions. (Urban Crossroads, 2019e, p. 148)

3. Freeway Facility Analysis

Table 4.12-17, *Opening Year (2022) Freeway Facility Analysis*, summarizes the LOS along freeway mainline segments and freeway ramp merge/diverge locations within the Project Study Area under Opening Year (2022) conditions, both with and without the addition of Project traffic. As shown in Table 4.12-17, all Study Area freeway facilities would operate at acceptable LOS under Opening Year (2022) conditions without the addition of Project traffic, with the exception of the following:

- SR-60 Westbound, West of Euclid Avenue (SR-83) (#24) – LOS E in the AM and PM peak hours;
- SR-60 Westbound, Euclid Avenue (SR-83) Off-Ramp (#26) – LOS E in the AM and PM peak hours;
- SR-60 Westbound, East of Euclid Avenue (SR-83) (#27) – LOS E in the AM and PM peak hours; and
- SR-60 Eastbound, East of Euclid Avenue (SR-83) (#31) – LOS E in the AM peak hour.

Under Opening Year (2022) traffic conditions, the Project would contribute fewer than 50 peak hour trips to all of the above-listed mainline segments and ramp junction locations during the affected peak hours (Urban Crossroads, 2019e, Exhibit 4-8). Therefore, the Project's contribution to the LOS deficiencies at the above-listed freeway mainline segments and freeway ramp merge/diverge locations would not be substantial under Opening Year (2022) traffic conditions. Furthermore, there would be no additional deficiencies to any freeway facility with the addition of Project traffic; thus, the Project would not conflict with any objectives and policies related to the performance of freeway mainline segments or freeway ramp merge/diverge locations under Opening Year (2022) traffic conditions.

The freeway mainline segments located in the Project Study Area, listed in Table 4.12-17, include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Study Area. Rather, Project traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the Project Site increases. As such, Project traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, such as SR-91, I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at an unacceptable LOS do not achieve Caltrans performance objectives. Because Project operation would contribute fewer than 50 peak hour trips to all congested freeway segment beyond the Project Study Area, the Project's effect on State highway system mainline segments located outside of the Study Area would not substantially conflict with Caltrans' LOS objectives for freeway performance.

4. Freeway Off-Ramp Queuing Analysis

Queuing analysis findings for Opening Year Cumulative (2022) Without and With Project traffic conditions are shown on Table 4.12-18, *Opening Year (2022) Freeway Ramp Queuing Analysis*. As shown on Table 4.12-18, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with addition of Project traffic. (Urban Crossroads, 2019e, p. 153)

D. Horizon Year (2040) Impact Analysis

Projected weekday ADT volumes and peak hour intersection volumes in the Study Area under Horizon Year (2040) traffic conditions are shown on Figure 4.12-19 through Figure 4.12-21.

1. Intersection Impact Analysis

Table 4.12-19, *Horizon Year (2040) Intersection Analysis*, summarizes the peak hour LOS at Study Area intersections under Horizon Year (2040) conditions. As shown in Table 4.12-19, all Study Area freeway facilities would operate at acceptable LOS without the addition of Project traffic under Horizon Year (2040) conditions with the exception of the following:

- SR-71 Southbound Ramps/Pine Avenue (Intersection #2) – LOS F in the AM peak hour;
- SR-71 Northbound Ramps/Pine Avenue (Intersection #5) – LOS F in the AM and PM peak hours;
- El Prado Road/Pine Avenue (Intersection #15) – LOS F in the AM and PM peak hours;
- Euclid Avenue (SR-83)/SR-60 Eastbound Ramps (Intersection #20) – LOS F in the AM and PM peak hours;
- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – LOS F in the AM and PM peak hours;
- Euclid Avenue (SR-83)/Chino Avenue (Intersection #23) – LOS E in the AM peak hour and LOS F in the PM peak hour;
- Euclid Avenue (SR-83)/Schaefer Avenue (Intersection #24) – LOS F in the AM and PM peak hour;
- Euclid Avenue (SR-83)/Edison Avenue (Intersection #25) – LOS F in the AM and PM peak hours;
- Euclid Avenue (SR-83)/Eucalyptus Avenue (Intersection #26) – LOS E in the AM peak hour and LOS F in the PM peak hour;
- Euclid Avenue (SR-83)/Merrill Avenue (Intersection #27) – LOS F in the AM and PM peak hours;
- Euclid Avenue (SR-83)/Kimball Avenue (Intersection #28) – LOS F in the AM and PM peak hours;
- Flight Avenue/Kimball Avenue (Intersection #38) – LOS F in the AM and PM peak hours;
- Hellman Avenue/Kimball Avenue (Intersection #40) – LOS F in the PM peak hour; and

- Archibald Avenue/Limonite Avenue (Intersection #42) – LOS F in the AM and PM peak hours.

With exception of the intersection of Archibald Avenue at Limonite (Intersection #42), the Project would contribute to but would not directly cause the above-listed LOS deficiencies; thus, the Project's cumulative contribution to the LOS deficiencies at the above-listed intersections (except Intersection #42) would represent a substantial conflict with General Plan objectives and policies that include LOS standards.

Although Table 4.12-19 shows that the intersection of Archibald Avenue at Limonite (Intersection #42) would operate at a deficient LOS under Horizon Year (2040) conditions with or without the addition of Project traffic, the Project would contribute fewer than 50 peak hour trips to this facility during both peak hours (Urban Crossroads, 2019e, Exhibit 4-10). Accordingly, Project traffic would not substantially contribute to the conflict with the applicable LOS objectives and policies and at Intersection #42 under Horizon Year (2040) conditions.

As also shown on Table 4.12-19, the intersection of El Prado Road at Mountain Avenue (Intersection #14) would degrade to a deficient LOS with the addition of Project traffic. Because this intersection was shown to operate at acceptable LOS under E+P (Project Buildout) and Opening Year (2022) conditions (refer to Table 4.12-13 and Table 4.12-16, the LOS deficiency is the result of ambient growth and traffic from cumulative developments combined with Project traffic. Therefore, Project's contribution to the LOS deficiency at the El Prado Road at Mountain Avenue (Intersection #14) would be cumulatively considerable. (Urban Crossroads, 2019e, p. 168)

2. Traffic Signal Warrant Analysis

The following Study Area intersections are anticipated to warrant a traffic signal under Horizon Year (2040) without Project traffic conditions (Urban Crossroads, 2019e, p. 173):

- SR-71 Northbound Ramps & Pine Avenue (#5)
- Rincon Meadows Avenue & Pine Avenue (#32)

The Project would contribute fewer than 50 peak hour trips to the intersection of Rincon Meadows Avenue at Pine Avenue (#32) under Horizon Year (2040) traffic conditions; thus, Project would not substantially contribute to the signal warrants at these intersections. The Project would contribute more than 50 peak hour trips to the intersection of SR-71 Northbound Ramps at Pine Avenue (#5); thus, and because the Project would contribute to but would not directly cause the need for signalization at this location, Project's cumulative contribution to a conflict with the General Plan objectives and policies that trigger the signal warrant to this intersection would be substantial under Horizon Year (2040) conditions. (Urban Crossroads, 2019e, p. 173 and Exhibit 4-10)

With the addition of Project traffic, there would be no additional Study Area intersections anticipated to meet either ADT or peak hour volume-based traffic signal warrants for Horizon Year (2040) With Project traffic conditions. (Urban Crossroads, 2019e, p. 173)

3. Freeway Facility Analysis

Table 4.12-20, *Horizon Year (2040) Freeway Facility Analysis*, summarizes the LOS along freeway mainline segments and freeway merge/diverge ramp junctions within the Project Study Area under Opening Year (2022) conditions. As shown in Table 4.12-20, the following eight (8) freeway facilities are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours without the addition of Project traffic: (Urban Crossroads, 2019e, p. 173)

- SR-71 Southbound, South of Euclid Avenue (SR-83) (#12) – LOS E in the AM peak hour;
- SR-60 Westbound, West of Euclid Avenue (SR-83) (#24) – LOS E in the AM and PM peak hours;
- SR-60 Westbound, Euclid Avenue (SR-83) Off-Ramp (#26) – LOS E in the AM peak hour and LOS F in the PM peak hour;
- SR-60 Westbound, East of Euclid Avenue (SR-83) (#27) – LOS E in the AM peak hour and LOS F in the PM peak hour;
- SR-60 Eastbound, West of Euclid Avenue (SR-83) (#28) – LOS F in the PM peak hour;
- SR-60 Eastbound, Euclid Avenue (SR-83) Off-Ramp (#29) – LOS E in the AMP peak hour and LOS F in the PM peak hour;
- SR-60 Eastbound, Euclid Avenue (SR-83) On-Ramp (#30) – LOS F in the PM peak hour; and
- SR-60 Eastbound, East of Euclid Avenue (SR-83) (#31) – LOS F in the PM peak hour.

Under Horizon Year (2040) traffic conditions, the Project would contribute fewer than 50 peak hour trips to all of the above-listed mainline segments and freeway junction merge/diverge locations during the affected peak hours; therefore, the Project's contribution to the LOS deficiencies at the above-listed freeway facilities would not represent a substantial conflict with applicable performance objectives and policies (Urban Crossroads, 2019e, Exhibit 4-10). There are no additional freeway facilities anticipated to operate at a deficient LOS with the addition of Project traffic.

The freeway mainline segments located in the Project Study Area, listed in Table 4.12-20, include the segments that would receive the highest concentration of traffic from the Project. However, Project traffic does not stop at the limits of the Study Area. Rather, Project traffic continues to travel throughout the southern California region along the State Highway System, dissipating as distance from the Project Site increases. As such, Project traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, such as SR-91, I-5, I-15, I-215, I-110, I-405, and I-710, among others. All State Highway System facilities that operate at an unacceptable LOS do not achieve Caltrans performance objectives. Because Project operation would contribute fewer than 50 peak hour trips to all congested freeway segments beyond the Project Study Area, the Project's effect on State highway system mainline segments located outside of the Study Area would not substantially conflict with Caltrans' LOS objectives for freeway performance.

4. Freeway Off-Ramp Queuing Analysis

Queuing analysis findings for Horizon Year (2040) traffic conditions are presented on Table 4.12-21, *Horizon Year (2040) Freeway Ramp Queuing Analysis*. As shown on Table 4.12-21, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Horizon Year (2040) Without Project traffic conditions. Similarly, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with addition of Project traffic. (Urban Crossroads, 2019e, p. 173)

E. Public and Non-Vehicular Transportation

The Project is not expected to attract large volumes of pedestrian or bicycle traffic. As described previously in Subsection 4.12.2.E, on the north side of Bickmore Avenue, on the opposite side of the street from the Project Site's frontage, and an approximately 270-foot long sidewalk segment on the west side of Mountain Avenue, on the opposite side of the Project Site's frontage, extending south from the Mountain Avenue and Bickmore Avenue intersection (Urban Crossroads, 2019e, Exhibit 3-15). In addition, there are proposed Class I bike lanes along Pine Avenue and proposed Class II bike lanes along Euclid Avenue within the vicinity of the Project Site under existing conditions; however, there are no existing or proposed bicycle facilities on or abutting the Project Site (Urban Crossroads, 2019e, Exhibit 3-12). Accordingly, the Project would not conflict with any City-designated bikeways. Furthermore, the Project's driveways would be stop-sign controlled and sight distance at each Project driveway would be reviewed by the City of Chino prior to the issuance of building permits to ensure that sight distance meets applicable City standards and provides for safe bicycle and pedestrian circulation.

As mentioned previously in Subsection 4.12.2.D, no transit lines serve the Project Site or the immediate surrounding area.

As demonstrated by the foregoing analysis, the Project would not conflict with adopted policies, plans or programs related to alternative transportation, or otherwise substantially decrease the performance or safety of such facilities, and a less-than-significant impact would occur.

Threshold b: Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?

Pursuant to CEQA Guidelines Section 15064.3(c), the City of Chino has until July 1, 2020, to implement CEQA Guidelines Section 15064.3(b). At the time the Draft EIR was circulated for public review, the City had not established a VMT threshold of significance and was not requiring development projects, including the proposed Project, to demonstrate compliance with CEQA Guidelines Section 15064.3(b). Accordingly, the Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b).

Threshold c: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The type of traffic generated by the Project (i.e., passenger cars and trucks) would be compatible with the type of existing traffic on Project Study Area roadways, as the surrounding area is largely developed with industrial land uses with an existing golf course occurring to the west and south of the Project Site. In addition, all

proposed improvements within the public right-of-way would be installed in conformance with City design standards. The City of Chino Public Works Department reviewed the Project's application materials and determined that no hazardous transportation design features would be introduced by the Project. Accordingly, the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. Impacts would be less than significant.

Threshold d: Would the Project result in inadequate emergency access?

The City of Chino reviewed the Project's design and confirmed that the Project would provide adequate access to-and-from the Project Site for emergency vehicles and also that development of the Project would not interfere with the circulation of emergency vehicles along public streets that abut the site. The City also will require the Project Applicant to provide adequate paved access to-and-from the site as a condition of Project approval. Lastly, the City would review all future Project construction drawings to ensure that adequate emergency access is maintained along abutting public streets during construction activities on the Project Site and Excess Fill Dirt Site Nos. 1 through 5. Based on the proposed Project design and with required adherence to City requirements for emergency vehicle access, no impact would occur.

4.12.7 Cumulative Impact Analysis

The analysis under Threshold "a" discloses the Project's potential to conflict with General Plan objectives and policies related to the transportation network, including LOS standards, on a cumulative basis. During construction of the proposed Project, if hauling activity occurs during peak hours, the Project could result in substantial, cumulative conflicts with applicable General Plan objectives and policies to nine intersections due to haul trucks during the soil import phase of construction (Urban Crossroads, 2019e, p. 113). Additionally, there is a potential that construction work trips combined with trips associated with delivery and/or removal of heavy equipment and delivery of construction materials could cumulatively-contribute to deficient LOS along Study Area facilities, including when combined with truck trips from soil import activities. Mitigation would be required to address the conflicts with applicable General Plan performance objectives and policies for the local roadway network.

As also disclosed under the analysis of Threshold "a," the Project would make substantial, cumulative contributions to LOS deficiencies that conflict with applicable General Plan performance objectives and policies for the local roadway network at several Project Study Area intersections under E+P (Building 1), E+P (Project Building), Opening Year (2022), and Horizon Year (2040) traffic conditions. The Project also would contribute to the need for signalization of the intersection of SR-71 Northbound Ramps at Pine Avenue (#5) under Horizon Year (2040) conditions. For all study scenarios, the Project would contribute fewer than 50 peak hour trips to Study Area freeway facilities (i.e., freeway mainlines and merge/diverge ramp junctions) that are projected to operate at a deficient LOS; thus, the Project would not contribute substantial traffic to these freeway mainline segments and freeway merge/diverge ramp junctions within the Project Study Area. Additionally, the Project would not contribute substantial traffics to freeway off-ramp queuing locations under any study scenario.

The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds "c" and "d" because the Project would not cause or exacerbate existing transportation design safety concerns or adversely affect emergency access.

4.12.8 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. During near-term construction activities, the Project would cause and contribute to conflicts with applicable General Plan performance objectives and policies, including LOS standards, to Study Area intersections due to combined soil import activities, heavy equipment delivery/removal, delivery of construction materials, and construction worker trips. During Project operations, the Project would contribute substantial traffic to Study Area intersections under all study scenarios. Under Horizon Year (2040) conditions, the Project also would contribute to the need to install a traffic signal at the SR-71 Northbound Ramps at Pine Avenue intersection (Intersection #5). The Project would not contribute substantial traffic to freeway mainlines, freeway merge/diverge ramp junctions, and freeway off-ramp queuing locations under all study scenarios.

Threshold b: No Impact. Pursuant to CEQA Guidelines Section 15064.3(c), the City of Chino has until July 1, 2020, to implement CEQA Guidelines Section 15064.3(b). At the time this Draft EIR was circulated for public review, the City had not implemented CEQA Guidelines Section 15064.3(b).

Threshold c: Less-than-Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project.

Threshold d: No Impact. Adequate emergency access would be provided to Excess Fill Dirt Site Nos. 1 through 5 during soil importing activities and to the Project Site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.

4.12.9 Mitigation

The following mitigation measures would minimize the Project's construction impacts to the local roadway and circulation network.

MM 4.12-1 Prior to the issuance of grading permits and building permits, the Project Applicant/Developer shall develop and implement a City-approved Construction Traffic Management Plan that addresses potential construction-related traffic detours and disruptions. The Construction Traffic Management Plan shall ensure to the extent practical that (a), construction worker commute traffic and building material deliveries occur during off-peak hours; (b) construction worker commute traffic uses direct routes to/from freeways; and (c) delivery and removal of heavy equipment use designated truck routes and not occur during the morning and evening peak periods of 7:00 AM to 9:00 AM or 4:00 PM to 6:00 PM.

MM 4.12-2 As a condition of grading permits, the City shall ensure that the Project Applicant/Developer limits truck trips associated with soil import hauling activity between the Project Site and Excess Fill Dirt Site Nos. 1 through 5 to a maximum of 50 PCE truck trips per hour (combined)

between the hours of 7:00 AM to 9:00 AM and between the hours of 4:00 PM to 6:00 PM. The 50 PCE truck trips equates to approximately 16 total trucks (8 trucks in and 8 trucks out) per hour during the hours specified above in order to limit the potential impacts of haul truck activity during these busy commute times. This requirement also shall be specified in bid documents issued to prospective construction contractors involved with excess fill dirt hauling and shall be specified in construction contracts involving excess fill dirt hauling.

The following mitigation measures would minimize the Project's cumulative impacts to the local roadway and circulation network.

MM 4.12-3 Prior to the issuance of building permits, the Project Applicant/Developer shall comply with the applicable requirements of City of Chino Development Impact Fee (DIF) program pursuant to City of Chino Municipal Code Chapter 3.40 (Development Impact Fees), which requires fee payment to the City of Chino (less any fee credits), a portion of which is used by the City to fund the installation of road and intersection improvements to reduce traffic congestion.

MM 4.12-4 Prior to the issuance of an occupancy permit for either of the proposed buildings, the Project Applicant/Developer shall make appropriate fair-share payments to the appropriate jurisdiction (City of Chino, City of Chino Hills, or City of Eastvale), to be held in trust, for the intersection improvements listed in Table 1-3 of the "Majestic Chino Heritage Traffic Impact Analysis," prepared by Urban Crossroads (dated August 13, 2019). The Project's mitigation obligations are listed in Table 9-1 of the same report under the "Project Responsibility" column, the Project's fair share percentage (for full Project Buildout) is listed under the "Fair Share %" column of Table 9-1, while Table 1-1 of the same report identifies the governing jurisdiction(s) for each of the Study Area intersections. Based on the Project's trip generation for Building 1 and Project Buildout (refer to Table 4.12-10), the Project Applicant would be required to contribute 55.8% of the total fair share amount prior to occupancy of either Building 1 or Building 2, while the remaining 44.2% of the required fair-share contribution shall be required prior to occupancy of Project Buildout (i.e., both Buildings 1 and 2). The City of Chino, City of Chino Hills, and/or City of Eastvale shall only use the funds for improving the intersections listed therein. If within five years of the date of collection of the Project's fair-share fee payment, the City of Chino, City of Chino Hills, and/or City of Eastvale has not completed the improvements or established a fair-share funding program for the specified improvements to the respective intersections, then the City of Chino, City of Chino Hills, and/or City of Eastvale shall return the funds to the Project Applicant/Developer.

4.12.10 Significance of Impacts After Mitigation

Threshold a (Construction Impacts): Less-than-Significant Direct and Cumulatively-Considerable Impact. Mitigation Measures MM 4.12-1 and MM 4.12-2 would require the Project Applicant/Developer to prepare and implement a Construction Traffic Management Plan to schedule construction worker commuting and building material deliveries during off-peak hours and limit hauling activity during morning and evening peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) to a maximum of 50 PCE trips. With

implementation of MM 4.12-1 and MM 4.12-2, the Project would not conflict with applicable General Plan objectives and policies related to the performance of the local roadway network, including LOS standards.

Threshold a (Operational Impacts): Significant and Unavoidable Cumulatively-Considerable Impact. Mitigation Measure MM 4.12-3 requires the Project Applicant/Developer to contribute to the City of Chino's Development Impact Fee (DIF) program and Mitigation Measure MM 4.12-4 requires the Project Applicant/Developer to contribute a fair share towards the cost of required improvements. Funds collected via Mitigation Measures MM 4.12-3 and MM 4.12-4 would be used to fund needed improvements to the local roadway system. Under CEQA, a monetary contribution to a mitigation fund is adequate mitigation if the funds are part of a reasonable plan that the relevant agency is committed to implementing.

As shown in Table 4.12-22, Table 4.12-23, and Table 4.12-24, all Study Area intersections would operate at acceptable LOS under E+P (Building 1), E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040) traffic scenarios with recommended improvements. However, to achieve acceptable levels of service along Study Area intersections, numerous improvements are required that are either: 1) not under the sole jurisdictional authority of the City of Chino (meaning the City of Chino cannot assure that the recommended improvements would be implemented); and/or 2) not included in any existing mitigation funding program to ensure a date-certain installation. Because the City of Chino cannot assure that all the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulatively-considerable impacts at the following intersections are recognized as significant and unavoidable. No other feasible mitigation measures for are available that would correct the conflicts with General Plan objectives and policies for LOS at these intersections that have a proportional nexus to the Project's contribution.

- SR-71 Southbound Ramps/Pine Avenue (Intersection #2) – Horizon Year (2040)
- SR-71 Northbound Ramps/Pine Avenue (Intersection #5) – Horizon Year (2040)
- Central Avenue/El Prado Road (Intersection #7) – E+P (Building 1), E+P (Project Buildout), and Opening Year (2022)
- El Prado Road/Kimball Avenue (Intersection #8) – E+P (Building 1), E+P (Project Buildout), and Opening Year (2022)
- El Prado Road/Mountain Avenue (Intersection #14) – Horizon Year (2040)
- El Prado Road/Pine Avenue (Intersection #15) – Horizon Year (2040)
- Euclid Avenue (SR-83)/SR-60 Eastbound Ramps (Intersection #20) – Horizon Year (2040)
- Euclid Avenue (SR-83)/Riverside Drive (Intersection #22) – E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040)
- Euclid Avenue (SR-83)/Chino Avenue (Intersection #23) – Horizon Year (2040)
- Euclid Avenue (SR-83)/Schaefer Avenue (Intersection #24) – Horizon Year (2040)

- Euclid Avenue (SR-82)/Edison Avenue (Intersection #25) – Opening Year (2022) and Horizon Year (2040)
- Euclid Avenue (SR-83)/Eucalyptus Avenue (Intersection #26) – Horizon Year (2040)
- Euclid Avenue (SR-83)/Merrill Avenue (Intersection #27) – Opening Year (2022) and Horizon Year (2040)
- Euclid Avenue (SR-83)/Kimball Avenue (Intersection #28) – Opening Year (2022) and Horizon Year (2040)
- Euclid Avenue (SR-83)/Pine Avenue (Intersection #30) – E+P (Building 1), E+P (Project Buildout), and Opening Year (2022)
- Flight Avenue/Kimball Avenue (Intersection #38) – Horizon Year (2040)
- Hellman Avenue/Kimball Avenue (Intersection #40) – Horizon Year (2040)
- Archibald Avenue/Limonite Avenue (Intersection #42) – Opening Year (2022)
- Archibald Avenue/Schleisman Road (Intersection #43) – E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040)

Additionally, although the Project would be required to contribute a fair-share contribution towards the signalization of the intersection of SR-71 Northbound Ramps at Pine Avenue (#5) pursuant to Mitigation Measure MM 4.12-4, it cannot be assured that the required signal would be in place under Horizon Year (2040) conditions because this intersection is under the jurisdiction of Chino Hills and Caltrans. Because the City of Chino cannot assure that the recommended traffic signal would be implemented and/or in place at the time of need, the Project's cumulatively-considerable impact due to the need for signalization of the intersection of SR-71 Northbound Ramps at Pine Avenue (#5) is recognized as significant and unavoidable. No other feasible mitigation measures are available that would have a proportional nexus to the Project's contribution.

Table 4.12-1 Study Area Intersection Locations

ID	Intersection Location	Jurisdiction	CMP?
1	SR-71 SB Ramps & Soquel Canyon Rd.	Chino Hills, Caltrans	No
2	SR-71 SB Ramps & Pine Av. – 2040 Analysis Location Only	Chino Hills, Caltrans	No
3	SR-71 SB Ramps & Butterfield Ranch Rd.	Chino Hills, Caltrans	No
4	SR-71 NB Ramps & Central Av.	Chino Hills, Caltrans	No
5	SR-71 NB Ramps & Pine Av. – 2040 Analysis Location Only	Chino Hills, Caltrans	No
6	SR-71 NB Ramps & Euclid Av. (SR-83)	Chino, Caltrans	No
7	Central Av. & El Prado Rd.	Chino	No
8	El Prado Rd. & Kimball Av.	Chino	No
9	Mountain Av. & Kimball Av.	Chino	No
10	Mountain Av. & Bickmore Av.	Chino	No
11	Mountain Av. & Driveway 1 – Future Intersection	Chino	No
12	Mountain Av. & Driveway 2 – Future Intersection	Chino	No
13	Mountain Av. & Driveway 3 – Future Intersection	Chino	No
14	El Prado Rd. & Mountain Av.	Chino	No
15	El Prado Rd. & Pine Av.	Chino	No
16	Driveway 4 & Bickmore Avenue – Future Intersection	Chino	No
17	Driveway 5 & Bickmore Avenue – Future Intersection	Chino	No
18	Driveway 6 & Bickmore Avenue – Future Intersection	Chino	No
19	Euclid Av. (SR-83) & SR-60 WB Ramps	Ontario, Caltrans	Yes
20	Euclid Av. (SR-83) & SR-60 EB Ramps	Ontario, Caltrans	Yes
21	Euclid Av. (SR-83) & Walnut Av.	Ontario	Yes
22	Euclid Av. (SR-83) & Riverside Dr.	Caltrans, Chino, Ontario	Yes
23	Euclid Av. (SR-83) & Chino Av.	Caltrans, Chino, Ontario	No
24	Euclid Av. (SR-83) & Schaefer Av.	Caltrans, Chino, Ontario	No
25	Euclid Av. (SR-83) & Edison Av.	Caltrans, Chino, Ontario	Yes
26	Euclid Av. (SR-83) & Eucalyptus Av.	Caltrans, Chino, Ontario	No
27	Euclid Av. (SR-83) & Merrill Av.	Caltrans, Chino, Ontario	No
28	Euclid Av. (SR-83) & Kimball Av.	Caltrans, Chino	No
29	Euclid Av. (SR-83) & Bickmore Av.	Caltrans, Chino	No
30	Euclid Av. (SR-83) & Pine Av.	Caltrans, Chino	No
31	Rincon Meadows Av. & Kimball Av. – 2040 Analysis Location Only	Chino	No
32	Rincon Meadows Av. & Pine Av.	Chino	No
33	Mill Creek Av. & Kimball Av. – 2040 Analysis Location Only	Chino	No
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	Chino	No
35	Cucamonga Av. & Chino-Corona Rd. – Construction Only	Chino	No
36	W. Preserve Loop & Pine Av.	Chino	No
37	Main St. & Kimball Av. – 2040 Analysis Location Only	Chino	No
38	Flight Av. & Kimball Av. – 2040 Analysis Location Only	Chino	No
39	E. Preserve Loop & Pine Av.	Chino	No
40	Hellman Av. & Kimball Av. – 2040 Analysis Location Only	Chino, Eastvale	No
41	Hellman Av. & Pine Av./Schleisman Rd.	Chino, Eastvale	No
42	Archibald Av. & Limonite Av.	Eastvale	No
43	Archibald Av. & Schleisman Rd.	Eastvale	No

Source: (Urban Crossroads, 2019e, Table 1-1)

Table 4.12-2 Study Area Freeway Mainline Segments and Freeway Merge/Diverge Ramp Junctions

ID	Freeway Mainline Segments
1	SR-71 Southbound, North of Central Av.
2	SR-71 Southbound, Central Av. Off-Ramp
3	SR-71 Southbound, Central Av. Loop On-Ramp
4	SR-71 Southbound, Central Av. On-Ramp
5	SR-71 Southbound, Central Av. to Pine Av.
6	SR-71 Southbound, Pine Av. Off-Ramp
7	SR-71 Southbound, Pine Av. On-Ramp
8	SR-71 Southbound, Pine Av. to Euclid Av. (SR-83)
9	SR-71 Southbound, Euclid Av. (SR-83) Off-Ramp
10	SR-71 Southbound, Euclid Av. (SR-83) Loop On-Ramp
11	SR-71 Southbound, Euclid Av. (SR-83) On-Ramp
12	SR-71 Southbound, South of Euclid Av. (SR-83)
13	SR-71 Northbound, North of Central Av.
14	SR-71 Northbound, Central Av. On-Ramp
15	SR-71 Northbound, Central Av. Loop On-Ramp
16	SR-71 Northbound, Central Av. Off-Ramp
17	SR-71 Northbound, Central Av. to Pine Av.
18	SR-71 Northbound, Pine Av. On-Ramp
19	SR-71 Northbound, Pine Av. Off-Ramp
20	SR-71 Northbound, Pine Av. to Euclid Av. (SR-83)
21	SR-71 Northbound, Euclid Av. (SR-83) On-Ramp
22	SR-71 Northbound, Euclid Av. (SR-83) Off-Ramp
23	SR-71 Northbound, South of Euclid Av. (SR-83)
24	SR-60 Westbound, West of Euclid Av. (SR-83)
25	SR-60 Westbound, Euclid Av. (SR-83) On-Ramp
26	SR-60 Westbound, Euclid Av. (SR-83) Off-Ramp
27	SR-60 Westbound, East of Euclid Av. (SR-83)
28	SR-60 Eastbound, West of Euclid Av. (SR-83)
29	SR-60 Eastbound, Euclid Av. (SR-83) Off-Ramp
30	SR-60 Eastbound, Euclid Av. (SR-83) On-Ramp
31	SR-60 Eastbound, East of Euclid Av. (SR-83)

Source: (Urban Crossroads, 2019e, Table 1-2)

Table 4.12-3 Existing Intersection Levels of Service

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable LOS[4]
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	SR-71 SB Ramps & Soquel Canyon Rd.	TS	0	0	0	1	1	0	0	3	1>>	0	3	1>>	13.3	23.2	B	C	D
2	SR-71 SB Ramps & Pine Av.	TS	0	0	0	0	1	1	0	1	1	1	2	0	31.2	26.7	C	C	D
3	SR-71 SB Ramps & Butterfield Ranch Rd.	TS	1	0	1	1	1	1	0	2	0	1	2	1>>	40.0	39.6	D	D	D
4	SR-71 NB Ramps & Central Av.	TS	1	1	0	0	0	0	0	3	1>>	0	3	1>>	8.6	7.7	A	A	D
5	SR-71 NB Ramps & Pine Av.	AWS	1	1	0	0	0	0	2	0	0	0	0	0	9.3	8.9	A	A	D
6	SR-71 NB Ramps & Euclid Av. (SR-83)	TS	2	0	1>>	0	0	0	0	2	1>>	1	2	0	27.2	42.5	C	D	D
7	Central Av. & El Prado Rd.	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	29.0	**61.2**	C	E	D
8	El Prado Rd. & Kimball Av.	TS	1	1	1	1	2	0	1	1	0	0	1	1>	28.1	**86.2**	C	F	D
9	Mountain Av. & Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	2	0	7.4	9.7	A	A	D
10	Mountain Av. & Bickmore Av.	CSS	0	1	0	1	1	0	0	0	0	1	0	1	9.8	9.6	A	A	D
11	Mountain Av. & Driveway 1		Future Intersection																D
12	Mountain Av. & Driveway 2		Future Intersection																D
13	Mountain Av. & Driveway 3		Future Intersection																D
14	El Prado Rd. & Mountain Av.	CSS	0	1	0	0	1	0	0	0	0	0	1	0	10.4	13.6	B	B	D
15	El Prado Rd. & Pine Av.	AWS	0	0	0	0	1	0	0	1	0	0	1	0	9.8	13.5	A	B	D
16	Driveway 4 & Bickmore Av.		Future Intersection																D
17	Driveway 5 & Bickmore Av.		Future Intersection																D
18	Driveway 6 & Bickmore Av.		Future Intersection																D
19	Euclid Av. (SR-83) & SR-60 WB Ramps	TS	1	2	0	0	2	1	0	0	0	1	1	1	22.3	18.6	C	B	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps	TS	0	2	1	1	2	0	1	1	0	0	0	0	25.3	21.9	C	C	D
21	Euclid Av. (SR-83) & Walnut Av.	TS	1	3	d	2	3	1	1	2	0	1	2	0	30.1	32.5	C	C	E
22	Euclid Av. (SR-83) & Riverside Dr.	TS	1	2	1	1	2	1>	1	1	0	1	2	d	47.0	**55.5**	D	E	D
23	Euclid Av. (SR-83) & Chino Av.	TS	1	2	1	1	2	1	1	1	1	0	1	0	21.5	23.2	C	C	D
24	Euclid Av. (SR-83) & Schaefer Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	23.6	26.2	C	C	D
25	Euclid Av. (SR-83) & Edison Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	38.1	39.7	D	D	D
26	Euclid Av. (SR-83) & Eucalyptus Av.	TS	1	2	1	1	2	1	1	1	1	1	1	0	13.8	13.2	B	B	D
27	Euclid Av. (SR-83) & Merrill Av.	TS	1	2	1	1	2	0	0	1	0	0	1	0	26.4	29.9	C	C	D
28	Euclid Av. (SR-83) & Kimball Av.	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	32.4	38.3	C	D	D
29	Euclid Av. (SR-83) & Bickmore Av.	TS	1	2	0	1	2	1	1	1	1	1	1	0	16.3	14.0	B	B	D
30	Euclid Av. (SR-83) & Pine Av.	TS	1	2	1>	1	2	0	1	1	1	2	1	0	31.9	**61.5**	C	E	D
31	Rincon Meadows Av. & Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	15.4	12.8	B	B	D
32	Rincon Meadows Av. & Pine Av.		Future Intersection																D
33	Mill Creek Av. & Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	14.5	12.9	B	B	D
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	TS	1	1	0	1	1	0	1	2	1	1	1	1	27.1	12.2	C	B	D
35	Cucamonga Av. & Chino Corona Rd.	AWS	0	1	0	0	1	0	0	1	0	0	1	0	7.0	7.3	A	A	D
36	W. Preserve Loop & Pine Av.	TS	0	0	0	1	0	1	1	2	0	0	2	0	9.4	8.0	A	A	D
37	Main St. & Kimball Av.	TS	1	0	1	0	0	0	0	2	0	1	1	0	13.4	12.5	B	B	D
38	Flight Av. & Kimball Av.	CSS	0	1	0	0	1	0	1	2	0	1	1	0	21.0	20.5	C	C	D
39	E. Preserve Loop & Pine Av.	TS	2	0	1	0	0	0	0	2	1	1	2	0	8.5	7.2	A	A	D
40	Hellman Av. & Kimball Av.	TS	1	2	0	0	2	d	1	0	1>	0	0	0	**>200.0**	**77.9**	F	F	D
41	Hellman Av. & Pine Av./Schleisman Rd.	TS	2	2	1	2	2	1	2	3	1>	2	3	1>	37.7	38.6	D	D	D
42	Archibald Av. & Limonite Av.	TS	0	1	1>	1	1	0	0	0	0	1	0	1>	48.0	29.6	D	C	D
43	Archibald Av. & Schleisman Rd.	TS	2	3	1	2	3	1	2	3	1	2	3	1	**80.1**	46.5	F	D	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d = Defacto Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Minimum acceptable LOS for each applicable jurisdiction.

Source: (Urban Crossroads, 2019e, Table 3-1)

Table 4.12-4 Existing Freeway Facility Levels of Service

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]
SR-71 Freeway	Southbound	North of Central Avenue	3	9.6	A	18.4	C
		Central Avenue Off-Ramp	3	16.4	B	28.0	C
		Central Avenue Loop On-Ramp	3	9.5	A	13.9	B
		Central Avenue On-Ramp	3	10.0	A	14.0	B
		Central Avenue to Pine Avenue	3	10.4	A	17.1	B
		Pine Avenue Off-Ramp	2	14.5	B	22.2	C
		Pine Avenue On-Ramp	2	12.5	B	12.3	B
		Pine Avenue to Euclid Avenue (SR-83)	2	9.2	A	9.0	A
		Euclid Avenue (SR-83) Off-Ramp	2	13.4	B	13.2	B
		Euclid Avenue (SR-83) Loop On-Ramp	2	9.7	A	10.4	B
		Euclid Avenue (SR-83) On-Ramp	2	15.8	B	16.5	B
		South of Euclid Avenue (SR-83)	2	15.0	B	16.3	B
	Northbound	North of Central Avenue	3	20.3	C	17.8	B
		Central Avenue On-Ramp	3	24.6	C	21.2	C
		Central Avenue Loop On-Ramp	3	18.7	B	16.5	B
		Central Avenue Off-Ramp	3	20.4	C	21.7	C
		Central Avenue to Pine Avenue	3	13.6	B	14.9	B
		Pine Avenue On-Ramp	2	15.8	B	18.5	C
		Pine Avenue Off-Ramp	2	22.7	C	26.4	C
		Pine Avenue to Euclid Avenue (SR-83)	2	17.2	B	20.4	C
		Euclid Avenue (SR-83) On-Ramp	2	18.6	B	22.2	C
		Euclid Avenue (SR-83) Off-Ramp	3	8.9	A	15.6	B
		South of Euclid Avenue (SR-83)	3	10.8	A	19.0	C
SR-60 Freeway	Westbound	West of Euclid Avenue (SR-83)	4	33.9	D	31.5	D
		Euclid Avenue (SR-83) On-Ramp	4	28.6	D	27.3	C
		Euclid Avenue (SR-83) Off-Ramp	4	**36.3**	**E**	**35.7**	**E**
		East of Euclid Avenue (SR-83)	4	34.6	D	33.3	D
	Eastbound	West of Euclid Avenue (SR-83)	4	31.2	D	25.7	C
		Euclid Avenue (SR-83) Off-Ramp	4	32.2	D	28.5	D
		Euclid Avenue (SR-83) On-Ramp	4	28.9	D	24.7	C
		East of Euclid Avenue (SR-83)	4	32.9	D	26.4	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

Source: (Urban Crossroads, 2019e, Table 3-3)

Table 4.12-5 Existing Peak Hour Freeway Off-Ramp Queuing Summary

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
SR-71 SB Ramps & Central Avenue	SBL	1,530	245	516 [2]	Yes	Yes
	SBL/R	740	0	698 [2]	Yes	Yes
SR-71 SB Ramps & Pine Avenue	SBL/T	1,370	8	16	Yes	Yes
	SBR	725	29	456 [2]	Yes	Yes
SR-71 SB Ramps & Euclid Avenue (SR-83)	SBL	1,100	215	230	Yes	Yes
	SBL/T	1,560	215	232	Yes	Yes
	SBR	255	0	1	Yes	Yes
SR-71 NB Ramps & Central Avenue	NBL	1,485	34	75	Yes	Yes
	NBL/R	1,070	0	0	Yes	Yes
SR-71 NB Ramps & Pine Avenue	NBL	1,375	5	10	Yes	Yes
	NBL/T	815	5	10	Yes	Yes
SR-71 NB Ramps & Euclid Avenue (SR-83)	NBL	1,745	27	44	Yes	Yes
	NBR	420	203 [2]	732 [2]	Yes	Yes[3]
Euclid Av. (SR-83) & SR-60 WB Ramps	WBL	400	306	276	Yes	Yes
	WBL/T/R	1,430	316 [2]	284	Yes	Yes
	WBR	400	202	207	Yes	Yes
Euclid Av. (SR-83) & SR-60 EB Ramps	EBL	900	363 [2]	352 [2]	Yes	Yes
	EBT/R	1,270	260 [2]	288 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Source: (Urban Crossroads, 2019e, Table 3-2)

Table 4.12-6 Signalized Intersection LOS Thresholds

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Source: HCM (6th Edition)
Source: (Urban Crossroads, 2019e, Table 2-1)

Table 4.12-7 Unsignalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM (6th Edition)
Source: (Urban Crossroads, 2019e, Table 2-2)

Table 4.12-8 Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows, and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM (6th Edition)

Source: (Urban Crossroads, 2019e, Table 2-4)

Table 4.12-9 Freeway Ramp Junction Merge/Diverge LOS Thresholds

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM (6th Edition)

Source: (Urban Crossroads, 2019e, Table 2-5)

Table 4.12-10 Project Trip Generation Summary

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary (Actual Vehicles)									
High-Cube Fulfillment Center Warehouse (Building 1)	1,168.710	TSF							
Passenger Cars:			93	28	121	47	121	168	2,046
Truck Trips:									
2-4 axle:			7	2	9	4	9	13	190
5+-axle:			10	3	13	3	8	11	254
- Net Truck Trips			17	5	22	7	17	24	444
High-Cube Fulfillment Center Warehouse (Building 2)	814.040	TSF							
Passenger Cars:			65	19	84	33	84	117	1,426
Truck Trips:									
2-4 axle:			5	1	6	3	6	9	132
5+-axle:			7	2	9	2	6	8	178
- Net Truck Trips			12	3	15	5	12	17	310
High-Cube Warehouse (With Cold Storage) (Building 2)	100.000	TSF							
Passenger Cars:			6	2	8	3	7	10	144
Truck Trips:									
2-axle:			1	0	1	0	1	1	24
3-axle:			0	0	0	0	0	0	8
4+-axle:			1	0	1	0	1	1	38
- Net Truck Trips			2	0	2	0	2	2	70
Total Passenger Cars			164	49	213	83	212	295	3,616
Total Trucks			31	8	39	12	31	43	824
Truck %			19%	16%	18%	14%	15%	15%	23%
TOTAL NET TRIPS (Actual Vehicles)[2]			**195**	**57**	**252**	**95**	**243**	**338**	**4,440**
Project Trip Generation Summary (PCE)									
High-Cube Fulfillment Center Warehouse (Building 1)	1,168.710	TSF							
Passenger Cars:			93	28	121	47	121	168	2,046
Truck Trips:									
2-4 axle:			14	4	18	7	19	26	380
5+-axle:			30	9	39	10	25	35	762
- Net Truck Trips			44	13	57	17	44	61	1,142
High-Cube Fulfillment Center Warehouse (Building 2)	814.040	TSF							
Passenger Cars:			65	19	84	33	84	117	1,426
Truck Trips:									
2-4 axle:			10	3	13	5	13	18	264
5+-axle:			21	6	27	7	18	25	530
- Net Truck Trips			31	9	40	12	31	43	794
High-Cube Warehouse (With Cold Storage) (Building 2)	100.000	TSF							
Passenger Cars:			6	2	8	3	7	10	144
Truck Trips:									
2-axle:			1	0	1	0	1	1	36
3-axle:			1	0	1	0	0	0	16
4+-axle:			4	1	5	1	3	4	112
- Net Truck Trips			6	1	7	1	4	5	164
Total Passenger Cars (PCE)			164	49	213	83	212	295	3,616
Total Trucks (PCE)			81	23	104	30	79	109	2,100
TOTAL NET TRIPS (PCE)[2]			**245**	**72**	**317**	**113**	**291**	**404**	**5,716**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Source: (Urban Crossroads, 2019e, Table 4-2)

Table 4.12-11 Import Operation by Excess Fill Dirt Sites

Site	Nighttime Hauling		Daytime Hauling		Excess Fill Dirt (CY of Import)	Trucks Per Day (one-way)[1]	Total Trucks per Hour[2]	Two-way Truck Trips per Hour[3]
	Hours	Duration	Hours[4]	Duration				
1	6:00 PM to 2:00 AM	55 Nights	7:00 AM to 3:00 PM	55 Days	462,518	623	78	156
3	6:00 PM to 2:00 AM	22 Nights	7:00 AM to 3:00 PM	22 Days	156,222	526	66	132
4	6:00 PM to 2:00 AM	21 Nights	7:00 AM to 3:00 PM	21 Days	168,254	593	74	148
5	6:00 PM to 2:00 AM	11 Nights	7:00 AM to 3:00 PM	11 Days	98,867	666	83	166
2	6:00 PM to 2:00 AM	6 Nights	7:00 AM to 3:00 PM	6 Days	54,490	673	84	168

[1] [Excess Fill Dirt / Duration] / 13.5 cubic yards per truck

[2] [Trucks Per Day / 8 hours]

[3] [Trucks Per Day / 8 hours] x 2 trips (one trip in and one trip out)

[4] In order to keep traffic impacts to less than significant during the AM peak hour, the Project shall limit trips to less than 50 two-way peak hour trips during the hours of 7:00 AM to 9:00 AM.

Source: (Urban Crossroads, 2019e, Table 5-1)

Table 4.12-12 Existing plus Project (Building 1) Intersection Analysis

#	Intersection	Traffic Control[2]	Existing (2019)				E+P - Building 1				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-71 SB Ramps & Soquel Canyon Rd.	TS	13.3	23.2	B	C	13.9	23.7	B	C	D
2	SR-71 SB Ramps & Pine Av.	TS	31.2	26.7	C	C	2040 Analysis Location				D
3	SR-71 SB Ramps & Butterfield Ranch Rd.	TS	40.0	39.6	D	D	40.0	39.7	D	D	D
4	SR-71 NB Ramps & Central Av.	TS	8.6	7.7	A	A	8.6	7.7	A	A	D
5	SR-71 NB Ramps & Pine Av.	AWS	9.3	8.9	A	A	2040 Analysis Location				D
6	SR-71 NB Ramps & Euclid Av. (SR-83)	TS	27.2	42.5	C	D	29.8	42.5	C	D	D
7	Central Av. & El Prado Rd.	TS	29.0	**61.2**	C	E	29.8	**64.6**	C	E	D
8	El Prado Rd. & Kimball Av.	TS	28.1	**86.2**	C	**F**	30.3	**90.4**	C	**F**	D
9	Mountain Av. & Kimball Av.	TS	7.4	9.7	A	A	7.8	10.4	A	B	D
10	Mountain Av. & Bickmore Av.	CSS	9.8	9.6	A	A	10.4	10.2	B	B	D
11	Mountain Av. & Driveway 1	**CSS**	Future Intersection				8.5	9.0	A	A	D
12	Mountain Av. & Driveway 2	**CSS**	Future Intersection				9.0	9.3	A	A	D
13	Mountain Av. & Driveway 3	**CSS**	Future Intersection				Future Intersection				D
14	El Prado Rd. & Mountain Av.	CSS	10.4	13.6	B	B	10.7	15.0	B	C	D
15	El Prado Rd. & Pine Av.	AWS	9.8	13.5	A	B	10.1	14.6	B	B	D
16	Driveway 4 & Bickmore Av.	**CSS**	Future Intersection				8.6	9.1	A	A	D
17	Driveway 5 & Bickmore Av.	**CSS**	Future Intersection				8.6	9.1	A	A	D
18	Driveway 6 & Bickmore Av.	**CSS**	Future Intersection				8.6	9.2	A	A	D
19	Euclid Av. (SR-83) & SR-60 WB Ramps	TS	22.3	18.6	C	B	22.6	18.9	C	B	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps	TS	25.3	21.9	C	C	25.5	22.0	C	C	D
21	Euclid Av. (SR-83) & Walnut Av.	TS	30.1	32.5	C	C	30.2	32.6	C	C	E
22	Euclid Av. (SR-83) & Riverside Dr.	TS	47.0	**55.5**	D	E	47.6	**57.5**	D	E	D
23	Euclid Av. (SR-83) & Chino Av.	TS	21.5	23.2	C	C	21.6	23.3	C	C	D
24	Euclid Av. (SR-83) & Schaefer Av.	TS	23.6	26.2	C	C	24.0	26.6	C	C	D
25	Euclid Av. (SR-83) & Edison Av.	TS	38.1	39.7	D	D	38.8	40.4	D	D	D
26	Euclid Av. (SR-83) & Eucalyptus Av.	TS	13.8	13.2	B	B	14.0	13.3	B	B	D
27	Euclid Av. (SR-83) & Merrill Av.	TS	26.4	29.9	C	C	27.0	31.5	C	C	D
28	Euclid Av. (SR-83) & Kimball Av.	TS	32.4	38.3	C	D	32.8	39.6	C	D	D
29	Euclid Av. (SR-83) & Bickmore Av.	TS	16.3	14.0	B	B	17.3	15.3	B	B	D
30	Euclid Av. (SR-83) & Pine Av.	TS	31.9	**61.5**	C	E	33.3	**67.5**	C	E	D
31	Rincon Meadows Av. & Kimball Av.	TS	15.4	12.8	B	B	2040 Analysis Location				D
32	Rincon Meadows Av. & Pine Av.		Future Intersection				Future Intersection				D
33	Mill Creek Av. & Kimball Av.	TS	14.5	12.9	B	B	2040 Analysis Location				D
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	TS	27.1	12.2	C	B	27.1	12.3	C	B	D
35	Cucamonga Av. & Chino Corona Rd.	AWS	7.0	7.3	A	A	Construction Location Only				D
36	W. Preserve Loop & Pine Av.	TS	9.4	8.0	A	A	9.4	8.0	A	A	D
37	Main St. & Kimball Av.	TS	13.4	12.5	B	B	2040 Analysis Location				D
38	Flight Av. & Kimball Av.	CSS	21.0	20.5	C	C	2040 Analysis Location				D
39	E. Preserve Loop & Pine Av.	TS	8.5	7.2	A	A	8.5	7.2	A	A	D
40	Hellman Av. & Kimball Av.	TS	**>200.0**	**77.9**	**F**	**F**	2040 Analysis Location				D
41	Hellman Av. & Pine Av./Schleisman Rd.	TS	37.7	38.6	D	D	37.7	39.0	D	D	D
42	Archibald Av. & Limonite Av.	TS	48.0	29.6	D	C	48.0	30.8	D	C	D
43	Archibald Av. & Schleisman Rd.	TS	**80.1**	46.5	**F**	D	**80.1**	50.9	**F**	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

Source: (Urban Crossroads, 2019e, Table 6-1)

Table 4.12-13 Existing plus Project (Project Buildout) Intersection Analysis

#	Intersection	Traffic Control[2]	Existing (2019) Delay[1] (secs.) AM	Existing (2019) Delay[1] (secs.) PM	Existing (2019) Level of Service AM	Existing (2019) Level of Service PM	E+P - Project Buildout Delay[1] (secs.) AM	E+P - Project Buildout Delay[1] (secs.) PM	E+P - Project Buildout Level of Service AM	E+P - Project Buildout Level of Service PM	Acceptable LOS
1	SR-71 SB Ramps & Soquel Canyon Rd.	TS	13.3	23.2	B	C	14.3	24.0	B	C	D
2	SR-71 SB Ramps & Pine Av.	TS	31.2	26.7	C	C	2040 Analysis Location				D
3	SR-71 SB Ramps & Butterfield Ranch Rd.	TS	40.0	39.6	D	D	40.0	39.8	D	D	D
4	SR-71 NB Ramps & Central Av.	TS	8.6	7.7	A	A	8.6	7.7	A	A	D
5	SR-71 NB Ramps & Pine Av.	AWS	9.3	8.9	A	A	2040 Analysis Location				D
6	SR-71 NB Ramps & Euclid Av. (SR-83)	TS	27.2	42.5	C	D	32.7	42.6	C	D	D
7	Central Av. & El Prado Rd.	TS	29.0	**61.2**	C	E	30.5	**67.2**	C	E	D
8	El Prado Rd. & Kimball Av.	TS	28.1	**86.2**	C	**F**	34.7	**93.2**	C	**F**	D
9	Mountain Av. & Kimball Av.	TS	7.4	9.7	A	A	8.1	10.8	A	B	D
10	Mountain Av. & Bickmore Av.	CSS	9.8	9.6	A	A	11.2	10.8	B	B	D
11	Mountain Av. & Driveway 1	**CSS**	Future Intersection				8.6	9.4	A	A	D
12	Mountain Av. & Driveway 2	**CSS**	Future Intersection				9.1	9.6	A	A	D
13	Mountain Av. & Driveway 3	**CSS**	Future Intersection				9.2	9.3	A	A	D
14	El Prado Rd. & Mountain Av.	CSS	10.4	13.6	B	B	11.0	16.2	B	C	D
15	El Prado Rd. & Pine Av.	AWS	9.8	13.5	A	B	10.3	16.0	B	C	D
16	Driveway 4 & Bickmore Av.	**CSS**	Future Intersection				8.6	9.4	A	A	D
17	Driveway 5 & Bickmore Av.	**CSS**	Future Intersection				8.7	9.5	A	A	D
18	Driveway 6 & Bickmore Av.	**CSS**	Future Intersection				8.7	9.6	A	A	D
19	Euclid Av. (SR-83) & SR-60 WB Ramps	TS	22.3	18.6	C	B	22.8	19.1	C	B	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps	TS	25.3	21.9	C	C	25.6	22.1	C	C	D
21	Euclid Av. (SR-83) & Walnut Av.	TS	30.1	32.5	C	C	30.2	32.6	C	C	E
22	Euclid Av. (SR-83) & Riverside Dr.	TS	47.0	**55.5**	D	E	48.0	**59.4**	D	E	D
23	Euclid Av. (SR-83) & Chino Av.	TS	21.5	23.2	C	C	21.8	23.5	C	C	D
24	Euclid Av. (SR-83) & Schaefer Av.	TS	23.6	26.2	C	C	24.4	26.9	C	C	D
25	Euclid Av. (SR-83) & Edison Av.	TS	38.1	39.7	D	D	39.5	41.0	D	D	D
26	Euclid Av. (SR-83) & Eucalyptus Av.	TS	13.8	13.2	B	B	14.2	13.4	B	B	D
27	Euclid Av. (SR-83) & Merrill Av.	TS	26.4	29.9	C	C	27.3	33.0	C	C	D
28	Euclid Av. (SR-83) & Kimball Av.	TS	32.4	38.3	C	D	33.1	40.7	C	D	D
29	Euclid Av. (SR-83) & Bickmore Av.	TS	16.3	14.0	B	B	18.1	16.2	B	B	D
30	Euclid Av. (SR-83) & Pine Av.	TS	31.9	**61.5**	C	E	34.6	**71.3**	C	E	D
31	Rincon Meadows Av. & Kimball Av.	TS	15.4	12.8	B	B	2040 Analysis Location				D
32	Rincon Meadows Av. & Pine Av.		Future Intersection				Future Intersection				D
33	Mill Creek Av. & Kimball Av.	TS	14.5	12.9	B	B	2040 Analysis Location				D
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	TS	27.1	12.2	C	B	32.3	12.3	C	B	D
35	Cucamonga Av. & Chino Corona Rd.	AWS	7.0	7.3	A	A	Construction Location Only				D
36	W. Preserve Loop & Pine Av.	TS	9.4	8.0	A	A	9.6	8.0	A	A	D
37	Main St. & Kimball Av.	TS	13.4	12.5	B	B	2040 Analysis Location				D
38	Flight Av. & Kimball Av.	CSS	21.0	20.5	C	C	2040 Analysis Location				D
39	E. Preserve Loop & Pine Av.	TS	8.5	7.2	A	A	8.8	7.2	A	A	D
40	Hellman Av. & Kimball Av.	TS	**>200.0**	**77.9**	**F**	**F**	2040 Analysis Location				D
41	Hellman Av. & Pine Av./Schleisman Rd.	TS	37.7	38.6	D	D	38.3	39.4	D	D	D
42	Archibald Av. & Limonite Av.	TS	48.0	29.6	D	C	48.0	31.6	D	C	D
43	Archibald Av. & Schleisman Rd.	TS	**80.1**	46.5	**F**	D	**88.1**	55.0	**F**	D	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

Source: (Urban Crossroads, 2019e, Table 6-2)

Table 4.12-14 Existing plus Project Freeway Facility Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2019)				E+P - Building 1				E+P - Project Buildout			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
SR-71 Freeway	Southbound	North of Central Avenue	3	9.6	A	18.4	C	9.7	A	18.5	C	9.8	A	18.6	C
		Central Avenue Off-Ramp	3	16.4	B	28.0	C	16.6	B	28.1	D	16.7	B	28.1	D
		Central Avenue Loop On-Ramp	3	9.5	A	13.9	B	9.5	A	13.9	B	9.5	A	13.9	B
		Central Avenue On-Ramp	3	10.0	A	14.0	B	10.0	A	14.0	B	10.0	A	14.0	B
		Central Avenue to Pine Avenue	3	10.4	A	17.1	B	10.4	A	17.1	B	10.4	A	17.1	B
		Pine Avenue Off-Ramp	2	14.5	B	22.2	C	14.5	B	22.2	C	14.5	B	22.2	C
		Pine Avenue On-Ramp	2	12.5	B	12.3	B	12.5	B	12.3	B	12.5	B	12.3	B
		Pine Avenue to Euclid Avenue (SR-83)	2	9.2	A	9.0	A	9.2	A	9.0	A	9.2	A	9.0	A
		Euclid Avenue (SR-83) Off-Ramp	2	13.4	B	13.2	B	13.4	B	13.2	B	13.4	B	13.2	B
		Euclid Avenue (SR-83) Loop On-Ramp	2	9.7	A	10.4	B	9.8	A	10.6	B	9.8	A	10.8	B
		Euclid Avenue (SR-83) On-Ramp	2	15.8	B	16.5	B	15.8	B	16.8	B	15.9	B	17.0	B
		South of Euclid Avenue (SR-83)	2	15.0	B	16.3	B	15.0	B	16.1	B	15.0	B	16.3	B
	Northbound	North of Central Avenue	3	20.3	C	17.8	B	20.4	C	17.9	B	20.4	C	18.1	C
		Central Avenue On-Ramp	3	24.6	C	21.2	C	24.6	C	21.4	C	24.7	C	21.6	C
		Central Avenue Loop On-Ramp	3	18.7	B	16.5	B	18.7	B	16.9	B	18.7	B	16.9	B
		Central Avenue Off-Ramp	3	20.4	C	21.7	C	20.4	C	21.7	C	20.4	C	21.7	C
		Central Avenue to Pine Avenue	3	13.6	B	14.9	B	13.6	B	14.9	B	13.6	B	14.9	B
		Pine Avenue On-Ramp	2	15.8	B	18.5	C	15.8	B	18.5	C	15.8	B	18.5	C
		Pine Avenue Off-Ramp	2	22.7	C	26.4	C	22.7	C	26.4	C	22.7	C	26.4	C
		Pine Avenue to Euclid Avenue (SR-83)	2	17.2	B	20.4	C	17.2	B	20.4	C	17.2	B	20.4	C
		Euclid Avenue (SR-83) On-Ramp	2	18.6	B	22.2	C	18.8	B	22.5	C	18.8	B	22.5	C
		Euclid Avenue (SR-83) Off-Ramp	3	8.9	A	15.6	B	9.1	A	15.7	B	9.2	A	15.7	B
		South of Euclid Avenue (SR-83)	3	10.8	A	19.0	C	11.0	A	19.0	C	11.1	B	19.1	C
SR-60 Freeway	Westbound	West of Euclid Avenue (SR-83)	4	33.9	D	31.5	D	34.0	D	31.5	D	343.0	D	32.2	D
		Euclid Avenue (SR-83) On-Ramp	4	28.6	D	27.3	C	33.4	D	32.0	C	33.4	D	32.3	C
		Euclid Avenue (SR-83) Off-Ramp	4	**36.3**	**E**	**35.7**	**E**	**36.4**	**E**	**35.7**	**E**	**36.5**	**E**	**35.7**	**E**
		East of Euclid Avenue (SR-83)	4	34.6	D	33.3	D	34.7	D	33.4	D	34.7	D	33.4	D
	Eastbound	West of Euclid Avenue (SR-83)	4	31.2	D	25.7	C	31.2	D	25.7	C	31.2	D	25.8	C
		Euclid Avenue (SR-83) Off-Ramp	4	32.2	D	28.5	D	32.2	D	28.6	D	32.3	D	28.7	D
		Euclid Avenue (SR-83) On-Ramp	4	28.9	D	24.7	C	33.1	D	24.8	C	33.1	D	27.6	C
		East of Euclid Avenue (SR-83)	4	32.9	D	26.4	D	32.9	D	26.5	D	33.0	D	26.5	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

Source: (Urban Crossroads, 2019e, Table 6-4)

Table 4.12-15 Existing plus Project Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2019)				E+P - Building 1				E+P - Project Buildout			
			95th Percentile Queue (Feet)[3]		Acceptable?[1]		95th Percentile Queue (Feet)[3]		Acceptable?[1]		95th Percentile Queue (Feet)[3]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-71 SB Ramps & Central Avenue	SBL	1,530	245	516 [2]	Yes	Yes	257	528 [2]	Yes	Yes	265	538 [2]	Yes	Yes
	SBL/R	740	0	698 [2]	Yes	Yes	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 SB Ramps & Pine Avenue	SBL/T	1,370	8	16	Yes	Yes	2040 Analysis Location				2040 Analysis Location			
	SBR	725	29	456 [2]	Yes	Yes								
SR-71 SB Ramps & Euclid Avenue (SR-83)	SBL	1,100	215	230	Yes	Yes	215	230	Yes	Yes	215	230	Yes	Yes
	SBL/T	1,560	215	232	Yes	Yes	215	232	Yes	Yes	215	232	Yes	Yes
	SBR	255	0	1	Yes	Yes	0	1	Yes	Yes	0	1	Yes	Yes
SR-71 NB Ramps & Central Avenue	NBL	1,485	34	75	Yes	Yes	34	75	Yes	Yes	34	75	Yes	Yes
	NBL/R	1,070	0	0	Yes	Yes	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 NB Ramps & Pine Avenue	NBL	1,375	5	10	Yes	Yes	2040 Analysis Location				2040 Analysis Location			
	NBL/T	815	5	10	Yes	Yes								
SR-71 NB Ramps & Euclid Avenue (SR-83)	NBL	1,745	27	44	Yes	Yes	27	44	Yes	Yes	27	44	Yes	Yes
	NBR	420	203 [2]	732 [2]	Yes	Yes[3]	235 [2]	745 [2]	Yes	Yes[3]	259 [2]	757 [2]	Yes	Yes[3]
Euclid Av. (SR-83) & SR-60 WB Ramps	WBL	400	306	276	Yes	Yes	312 [2]	280	Yes	Yes	326 [2]	283	Yes	Yes
	WBL/T/R	1,430	316 [2]	284	Yes	Yes	342 [2]	281	Yes	Yes	346 [2]	284	Yes	Yes
	WBR	400	202	207	Yes	Yes	206	209	Yes	Yes	209	209	Yes	Yes
Euclid Av. (SR-83) & SR-60 EB Ramps	EBL	900	363 [2]	352 [2]	Yes	Yes	363 [2]	352 [2]	Yes	Yes	363 [2]	352 [2]	Yes	Yes
	EBT/R	1,270	260 [2]	288 [2]	Yes	Yes	289 [2]	294 [2]	Yes	Yes	300 [2]	298 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Source: (Urban Crossroads, 2019e, Table 6-3)

Table 4.12-16 Opening Year (2022) Intersection Analysis

#	Intersection	Traffic Control[2]	2022 Without Project Delay[1] (secs.) AM	2022 Without Project Delay[1] (secs.) PM	2022 Without Project Level of Service AM	2022 Without Project Level of Service PM	2022 With Project Delay[1] (secs.) AM	2022 With Project Delay[1] (secs.) PM	2022 With Project Level of Service AM	2022 With Project Level of Service PM	Acceptable LOS
1	SR-71 SB Ramps & Soquel Canyon Rd.	TS	14.8	30.5	B	C	16.0	32.0	B	C	D
2	SR-71 SB Ramps & Pine Av.	TS	2040 Analysis Location				2040 Analysis Location				D
3	SR-71 SB Ramps & Butterfield Ranch Rd.	TS	43.6	46.7	D	D	43.6	46.7	D	D	D
4	SR-71 NB Ramps & Central Av.	TS	9.2	8.2	A	A	9.2	8.2	A	A	D
5	SR-71 NB Ramps & Pine Av.	AWS	2040 Analysis Location				2040 Analysis Location				D
6	SR-71 NB Ramps & Euclid Av. (SR-83)	TS	33.7	49.0	C	D	37.1	49.1	D	D	D
7	Central Av. & El Prado Rd.	TS	35.0	**81.1**	D	**F**	36.9	**87.7**	D	**F**	D
8	El Prado Rd. & Kimball Av.	TS	35.0	**124.9**	C	**F**	48.8	**132.4**	D	**F**	D
9	Mountain Av. & Kimball Av.	TS	7.7	11.0	A	B	8.3	12.2	A	B	D
10	Mountain Av. & Bickmore Av.	CSS	9.9	10.3	A	B	11.3	11.7	B	B	D
11	Mountain Av. & Driveway 1	**CSS**	Future Intersection				8.6	9.5	A	A	D
12	Mountain Av. & Driveway 2	**CSS**	Future Intersection				9.1	10.0	A	B	D
13	Mountain Av. & Driveway 3	**CSS**	Future Intersection				9.2	9.5	A	A	D
14	El Prado Rd. & Mountain Av.	CSS	10.5	14.9	B	B	11.2	18.1	B	C	D
15	El Prado Rd. & Pine Av.	AWS	10.2	15.7	B	C	10.7	18.4	B	C	D
16	Driveway 4 & Bickmore Av.	**CSS**	Future Intersection				8.7	9.6	A	A	D
17	Driveway 5 & Bickmore Av.	**CSS**	Future Intersection				8.7	9.7	A	A	D
18	Driveway 6 & Bickmore Av.	**CSS**	Future Intersection				8.7	9.7	A	A	D
19	Euclid Av. (SR-83) & SR-60 WB Ramps	TS	26.4	22.7	C	C	27.6	23.3	C	C	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps	TS	35.3	25.2	D	C	36.4	25.6	D	C	D
21	Euclid Av. (SR-83) & Walnut Av.	TS	32.3	35.5	C	D	32.4	35.7	C	D	E
22	Euclid Av. (SR-83) & Riverside Dr.	TS	**59.0**	**83.7**	**E**	**F**	**61.2**	**91.8**	**E**	**F**	D
23	Euclid Av. (SR-83) & Chino Av.	TS	23.9	27.3	C	C	24.3	28.2	C	C	D
24	Euclid Av. (SR-83) & Schaefer Av.	TS	30.1	33.4	C	C	31.5	35.2	C	D	D
25	Euclid Av. (SR-83) & Edison Av.	TS	51.6	**60.6**	D	**E**	**56.3**	**64.8**	**E**	**E**	D
26	Euclid Av. (SR-83) & Eucalyptus Av.	TS	17.1	16.7	B	B	17.8	17.4	B	B	D
27	Euclid Av. (SR-83) & Merrill Av.	TS	45.5	**71.5**	D	**E**	47.6	**81.6**	D	**F**	D
28	Euclid Av. (SR-83) & Kimball Av.	TS	42.4	52.2	D	D	43.2	**57.1**	D	**E**	D
29	Euclid Av. (SR-83) & Bickmore Av.	TS	18.9	16.1	B	B	20.8	18.5	C	B	D
30	Euclid Av. (SR-83) & Pine Av.	TS	45.3	**101.0**	D	**F**	50.0	**114.4**	D	**F**	D
31	Rincon Meadows Av. & Kimball Av.	TS	2040 Analysis Location				2040 Analysis Location				D
32	Rincon Meadows Av. & Pine Av.	**TS**	10.7	11.3	B	B	11.0	11.9	B	B	D
33	Mill Creek Av. & Kimball Av.	TS	2040 Analysis Location				2040 Analysis Location				D
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	TS	42.1	15.9	D	B	49.6	16.2	D	B	D
35	Cucamonga Av. & Chino Corona Rd.	AWS	Construction Location Only				Construction Location Only				D
36	W. Preserve Loop & Pine Av.	TS	10.3	8.2	B	A	10.6	8.2	B	A	D
37	Main St. & Kimball Av.	TS	2040 Analysis Location				2040 Analysis Location				D
38	Flight Av. & Kimball Av.	CSS	2040 Analysis Location				2040 Analysis Location				D
39	E. Preserve Loop & Pine Av.	TS	8.5	7.3	A	A	8.6	7.4	A	A	D
40	Hellman Av. & Kimball Av.	TS	2040 Analysis Location				2040 Analysis Location				D
41	Hellman Av. & Pine Av./Schleisman Rd.	TS	39.8	42.0	D	D	40.7	43.7	D	D	D
42	Archibald Av. & Limonite Av.	TS	**76.8**	**63.6**	**E**	**E**	**77.2**	**66.5**	**E**	**E**	D
43	Archibald Av. & Schleisman Rd.	TS	**106.7**	**66.0**	**F**	**E**	**116.0**	**77.8**	**F**	**E**	D

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[3] Intersection geometrics reflect the completion of Pine Avenue Stages 1-3.

Source: (Urban Crossroads, 2019e, Table 7-1)

Table 4.12-17 Opening Year (2022) Freeway Facility Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	2022 Without Project				2022 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
SR-71 Freeway	Southbound	North of Central Avenue	3	9.9	A	19.4	C	10.2	A	19.5	C
		Central Avenue Off-Ramp	3	16.7	B	29.1	D	17.2	B	29.3	D
		Central Avenue Loop On-Ramp	3	9.9	A	14.6	B	9.9	A	14.6	B
		Central Avenue On-Ramp	3	10.4	B	14.6	B	10.4	B	14.6	B
		Central Avenue to Pine Avenue	3	11.1	B	18.2	C	11.1	B	18.2	C
		Pine Avenue Off-Ramp	2	15.3	B	23.4	C	15.3	B	23.4	C
		Pine Avenue On-Ramp	2	13.1	B	12.9	B	13.1	B	12.9	C
		Pine Avenue to Euclid Avenue (SR-83)	2	9.8	A	9.6	A	9.8	A	9.6	A
		Euclid Avenue (SR-83) Off-Ramp	2	14.2	B	13.9	B	14.2	B	13.9	B
		Euclid Avenue (SR-83) Loop On-Ramp	2	10.3	B	10.9	B	10.3	B	11.3	B
		Euclid Avenue (SR-83) On-Ramp	2	16.7	B	17.4	B	16.8	B	17.8	B
		South of Euclid Avenue (SR-83)	2	16.0	B	16.9	B	16.0	B	17.3	B
	Northbound	North of Central Avenue	3	21.6	C	18.6	C	8.0	A	18.9	C
		Central Avenue On-Ramp	3	25.8	C	21.9	C	10.3	B	22.3	C
		Central Avenue Loop On-Ramp	3	19.7	B	17.8	B	14.2	B	17.8	B
		Central Avenue Off-Ramp	3	21.3	C	22.9	C	13.1	B	22.9	C
		Central Avenue to Pine Avenue	3	14.5	B	15.9	B	9.5	A	15.9	B
		Pine Avenue On-Ramp	2	16.8	B	20.0	C	15.3	B	20.0	C
		Pine Avenue Off-Ramp	2	24.0	C	28.2	D	10.4	B	28.2	D
		Pine Avenue to Euclid Avenue (SR-83)	2	18.2	C	22.1	C	6.8	A	22.1	C
		Euclid Avenue (SR-83) On-Ramp	2	20.0	B	24.4	C	9.9	A	24.4	C
		Euclid Avenue (SR-83) Off-Ramp	3	9.5	A	16.8	B	17.2	B	16.9	B
		South of Euclid Avenue (SR-83)	3	11.6	B	20.4	C	10.2	A	20.5	C
SR-60 Freeway	Westbound	West of Euclid Avenue (SR-83)	4	**38.0**	**E**	**35.9**	**E**	**38.0**	**E**	**35.9**	**E**
		Euclid Avenue (SR-83) On-Ramp	4	36.3	D	35.0	D	36.3	D	35.1	D
		Euclid Avenue (SR-83) Off-Ramp	4	**38.6**	**E**	**38.0**	**E**	**38.8**	**E**	**38.1**	**E**
		East of Euclid Avenue (SR-83)	4	**38.6**	**E**	**37.2**	**E**	**38.7**	**E**	**37.2**	**E**
	Eastbound	West of Euclid Avenue (SR-83)	4	34.8	D	28.1	D	34.8	D	28.1	D
		Euclid Avenue (SR-83) Off-Ramp	4	34.9	D	30.8	D	34.9	D	30.8	D
		Euclid Avenue (SR-83) On-Ramp	4	35.8	D	29.7	C	35.9	D	29.8	D
		East of Euclid Avenue (SR-83)	4	**36.6**	**E**	28.8	D	**36.6**	**E**	28.9	D

* BOLD = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

Source: (Urban Crossroads, 2019e, Table 7-3)

Table 4.12-18 Opening Year (2022) Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	2022 Without Project				2022 With Project			
			95th Percentile Queue (Feet)[3]		Acceptable?[1]		95th Percentile Queue (Feet)[3]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-71 SB Ramps & Central Avenue	SBL	1,530	273	613 [2]	Yes	Yes	297 [2]	636 [2]	Yes	Yes
	SBL/R	740	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 SB Ramps & Pine Avenue	SBL/T	1,370	2040 Analysis Location				2040 Analysis Location			
	SBR	725								
SR-71 SB Ramps & Euclid Avenue (SR-83)	SBL	1,100	233	256	Yes	Yes	233	256	Yes	Yes
	SBL/T	1,560	233	255	Yes	Yes	233	255	Yes	Yes
	SBR	255	0	3	Yes	Yes	0	3	Yes	Yes
SR-71 NB Ramps & Central Avenue	NBL	1,485	35	81	Yes	Yes	35	81	Yes	Yes
	NBL/R	1,070	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 NB Ramps & Pine Avenue	NBL	1,375	2040 Analysis Location				2040 Analysis Location			
	NBL/T	815								
SR-71 NB Ramps & Euclid Avenue (SR-83)	NBL	1,745	28	49	Yes	Yes	28	49	Yes	Yes
	NBR	420	355 [2]	941 [2]	Yes	Yes[3]	412 [2]	967 [2]	Yes	Yes[3]
Euclid Av. (SR-83) & SR-60 WB Ramps	WBL	400	375 [2]	308	Yes	Yes	388 [2]	308	Yes	Yes
	WBL/T/R	1,430	384 [2]	315	Yes	Yes	401 [2]	328 [2]	Yes	Yes
	WBR	400	241	236	Yes	Yes	250	238	Yes	Yes
Euclid Av. (SR-83) & SR-60 EB Ramps	EBL	900	396 [2]	386 [2]	Yes	Yes	396 [2]	386 [2]	Yes	Yes
	EBT/R	1,270	457 [2]	433 [2]	Yes	Yes	477 [2]	442 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Source: (Urban Crossroads, 2019e, Table 7-2)

Table 4.12-19 Horizon Year (2040) Intersection Analysis

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Acceptable LOS
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-71 SB Ramps & Soquel Canyon Rd.	TS	16.0	36.7	B	D	16.1	36.8	B	D	D
2	SR-71 SB Ramps & Pine Av.	TS	**121.0**	40.1	**F**	D	**122.4**	**55.9**	**F**	**E**	D
3	SR-71 SB Ramps & Butterfield Ranch Rd.	TS	**58.3**	**65.9**	**E**	**E**	**58.3**	**65.9**	**E**	**E**	D
4	SR-71 NB Ramps & Central Av.	TS	10.0	8.7	B	A	10.0	8.7	B	A	D
5	SR-71 NB Ramps & Pine Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
6	SR-71 NB Ramps & Euclid Av. (SR-83)	TS	20.1	13.9	C	B	20.1	13.9	C	B	D
7	Central Av. & El Prado Rd.	TS	30.3	**59.8**	C	**E**	31.8	**61.5**	C	**E**	D
8	El Prado Rd. & Kimball Av.	TS	34.6	**121.4**	C	**F**	38.6	**124.2**	D	**F**	D
9	Mountain Av. & Kimball Av.	TS	9.3	14.8	A	B	9.5	15.3	A	B	D
10	Mountain Av. & Bickmore Av.	CSS	11.7	11.1	B	B	13.0	11.9	B	B	D
11	Mountain Av. & Driveway 1	**CSS**	Future Intersection				9.7	9.7	A	A	D
12	Mountain Av. & Driveway 2	**CSS**	Future Intersection				10.9	10.9	B	B	D
13	Mountain Av. & Driveway 3	**CSS**	Future Intersection				10.2	10.2	B	B	D
14	El Prado Rd. & Mountain Av.	CSS	14.5	20.6	B	C	17.3	**64.7**	C	**F**	D
15	El Prado Rd. & Pine Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
16	Driveway 4 & Bickmore Av.	**CSS**	Future Intersection				9.6	9.6	A	A	D
17	Driveway 5 & Bickmore Av.	**CSS**	Future Intersection				9.6	9.6	A	A	D
18	Driveway 6 & Bickmore Av.	**CSS**	Future Intersection				9.7	9.7	A	A	D
19	Euclid Av. (SR-83) & SR-60 WB Ramps	TS	**73.5**	**69.5**	**E**	**E**	**77.9**	**73.0**	**E**	**E**	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps	TS	**100.8**	**81.7**	**F**	**F**	**103.8**	**87.1**	**F**	**F**	D
21	Euclid Av. (SR-83) & Walnut Av.	TS	55.3	59.0	E	E	58.2	62.9	E	E	E
22	Euclid Av. (SR-83) & Riverside Dr.	TS	**129.9**	**>200.0**	**F**	**F**	**136.2**	**>200.0**	**F**	**F**	D
23	Euclid Av. (SR-83) & Chino Av.	TS	**56.5**	**121.9**	**E**	**F**	**61.8**	**128.0**	**E**	**F**	D
24	Euclid Av. (SR-83) & Schaefer Av.	TS	**155.8**	**172.7**	**F**	**F**	**165.1**	**180.7**	**F**	**F**	D
25	Euclid Av. (SR-83) & Edison Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
26	Euclid Av. (SR-83) & Eucalyptus Av.	TS	**69.2**	**155.8**	**E**	**F**	**75.9**	**162.8**	**E**	**F**	D
27	Euclid Av. (SR-83) & Merrill Av.	TS	**117.6**	**>200.0**	**F**	**F**	**120.8**	**>200.0**	**F**	**F**	D
28	Euclid Av. (SR-83) & Kimball Av.	TS	**101.3**	**152.6**	**F**	**F**	**114.1**	**163.3**	**F**	**F**	D
29	Euclid Av. (SR-83) & Bickmore Av.	TS	49.4	40.5	D	D	52.4	49.5	D	D	D
30	Euclid Av. (SR-83) & Pine Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
31	Rincon Meadows Av. & Kimball Av.	TS	31.4	26.4	C	C	36.0	27.5	D	C	D
32	Rincon Meadows Av. & Pine Av.	**TS**	**57.7**	**107.7**	**E**	**F**	**59.6**	**109.8**	**E**	**F**	D
33	Mill Creek Av. & Kimball Av.	TS	26.2	15.3	C	B	30.3	16.0	C	B	D
34	Mill Creek Av./Chino-Corona Rd. & Pine Av.	TS	**175.6**	**62.4**	**F**	**E**	**178.8**	**64.2**	**F**	**E**	D
35	Cucamonga Av. & Chino Corona Rd.	AWS	Construction Location Only				Construction Location Only				D
36	W. Preserve Loop & Pine Av.	TS	**72.7**	36.0	**E**	D	**74.4**	36.9	**E**	D	D
37	Main St. & Kimball Av.	TS	24.6	25.0	C	C	25.5	26.1	C	C	D
38	Flight Av. & Kimball Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
39	E. Preserve Loop & Pine Av.	TS	**160.3**	**>200.0**	**F**	**F**	**161.3**	**>200.0**	**F**	**F**	D
40	Hellman Av. & Kimball Av.	TS	32.9	**>200.0**	C	**F**	33.4	**>200.0**	C	**F**	D
41	Hellman Av. & Pine Av./Schleisman Rd.	TS	41.6	46.7	D	D	41.8	47.0	D	D	D
42	Archibald Av. & Limonite Av.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**	D
43	Archibald Av. & Schleisman Rd.	TS	**>200.0**	**152.3**	**F**	**F**	**>200.0**	**152.8**	**F**	**F**	D

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **CSS** = Improvement

[3] Includes additional lanes consistent with the planned Pine Avenue extension.

[4] Intersection geometrics reflect the completion of Pine Avenue Stages 1-3.

[5] Assumes signalization of the intersection and the buildout of the east leg.

[6] Assumes the buildout of the west leg.

[7] Assumes new interchange improvements at I-15 Freeway and Limonite Avenue.

Source: (Urban Crossroads, 2019e, Table 8-1)

Table 4.12-20 Horizon Year (2040) Freeway Facility Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	2040 Without Project				2040 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]	Density[2]	LOS[3]
SR-71 Freeway	Southbound	North of Central Avenue	3	12.2	B	19.1	C	12.6	B	19.3	C
		Central Avenue Off-Ramp	3	19.0	B	26.4	C	19.4	B	26.6	C
		Central Avenue Loop On-Ramp	3	8.6	A	14.1	B	8.9	A	14.2	B
		Central Avenue On-Ramp	3	15.5	B	21.4	C	15.8	B	21.5	C
		Central Avenue to Pine Avenue	3	17.9	B	28.5	D	18.2	C	28.8	D
		Pine Avenue Off-Ramp	2	23.1	C	45.0	D	23.4	C	45.0	D
		Pine Avenue On-Ramp	2	18.7	B	17.3	B	18.8	B	17.7	B
		Pine Avenue to Euclid Avenue (SR-83)	2	15.3	B	13.2	B	15.4	B	13.4	B
		Euclid Avenue (SR-83) Off-Ramp	2	20.4	C	18.9	B	20.5	C	19.4	B
		Euclid Avenue (SR-83) Loop On-Ramp	2	21.3	C	17.4	B	21.4	C	17.9	B
		Euclid Avenue (SR-83) On-Ramp	2	34.9	D	28.1	C	35.1	D	28.6	D
		South of Euclid Avenue (SR-83)	2	**35.5**	**E**	27.7	D	**35.6**	**E**	28.2	D
	Northbound	North of Central Avenue	3	17.6	B	18.1	C	17.6	B	18.4	C
		Central Avenue On-Ramp	3	20.5	C	21.6	C	20.6	C	21.9	C
		Central Avenue Loop On-Ramp	3	17.2	B	17.0	B	17.2	B	17.3	B
		Central Avenue Off-Ramp	3	23.2	C	24.8	C	23.3	C	25.0	C
		Central Avenue to Pine Avenue	3	16.3	B	17.1	B	16.3	B	17.4	B
		Pine Avenue On-Ramp	2	15.0	B	17.5	B	15.0	B	17.5	B
		Pine Avenue Off-Ramp	2	24.2	C	32.6	D	24.6	C	32.8	D
		Pine Avenue to Euclid Avenue (SR-83)	2	18.5	C	26.6	D	18.8	C	26.8	D
		Euclid Avenue (SR-83) On-Ramp	2	20.5	C	29.6	D	20.7	C	29.8	D
		Euclid Avenue (SR-83) Off-Ramp	3	13.1	B	24.7	C	13.3	B	24.8	C
		South of Euclid Avenue (SR-83)	3	15.9	B	28.9	D	16.1	B	29.0	D
SR-60 Freeway	Westbound	West of Euclid Avenue (SR-83)	4	**35.5**	**E**	**42.9**	**E**	**35.5**	**E**	**42.9**	**E**
		Euclid Avenue (SR-83) On-Ramp	4	35.4	D	40.8	D	35.4	D	40.8	D
		Euclid Avenue (SR-83) Off-Ramp	4	**41.3**	**E**	**43.4**	**F**	**41.5**	**E**	**43.4**	**F**
		East of Euclid Avenue (SR-83)	4	**38.1**	**E**	**45.0**	**F**	**38.2**	**E**	**45.0**	**F**
	Eastbound	West of Euclid Avenue (SR-83)	4	32.9	D	**45.0**	**F**	33.0	D	**45.0**	**F**
		Euclid Avenue (SR-83) Off-Ramp	4	**36.4**	**E**	**50.1**	**F**	**36.5**	**E**	**50.1**	**F**
		Euclid Avenue (SR-83) On-Ramp	4	34.9	D	**55.3**	**F**	35.0	D	**55.3**	**F**
		East of Euclid Avenue (SR-83)	4	34.7	D	**38.4**	**F**	34.8	D	**38.4**	**F**

BOLD = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

Source: (Urban Crossroads, 2019e, Table 8-3)

Table 4.12-21 Horizon Year (2040) Freeway Ramp Queuing Analysis

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project			
			95th Percentile Queue (Feet)[3]		Acceptable? [1]		95th Percentile Queue (Feet)[3]		Horizon Year (2040)	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
SR-71 SB Ramps & Central Avenue	SBL	1,530	297 [2]	656 [2]	Yes	Yes	295 [2]	658 [2]	Yes	Yes
	SBL/R	740	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 SB Ramps & Pine Avenue	SBL/T	1,370	236	599 [2]	Yes	Yes	272	622 [2]	Yes	Yes
	SBR	725	30	240	Yes	Yes	30	242	Yes	Yes
SR-71 SB Ramps & Euclid Avenue (SR-83)	SBL	1,100	232	470 [2]	Yes	Yes	232	470 [2]	Yes	Yes
	SBL/T	1,560	233	484 [2]	Yes	Yes	233	484 [2]	Yes	Yes
	SBR	255	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 NB Ramps & Central Avenue	NBL	1,485	54	85	Yes	Yes	54	85	Yes	Yes
	NBL/R	1,070	0	0	Yes	Yes	0	0	Yes	Yes
SR-71 NB Ramps & Pine Avenue	NBL	1,375	15	35	Yes	Yes	15	35	Yes	Yes
	NBL/T	815	20	90	Yes	Yes	33	105	Yes	Yes
SR-71 NB Ramps & Euclid Avenue (SR-83)	NBL	1,745	70	63	Yes	Yes	70	63	Yes	Yes
	NBR	420	157 [2]	1,226 [2,3]	Yes	Yes	157 [2]	1,226 [2,3]	Yes	Yes
Euclid Av. (SR-83) & SR-60 WB Ramps	WBL	400	493 [2,3]	420 [2,3]	Yes	Yes	503 [2,3]	428 [2,3]	Yes	Yes
	WBL/T/R	1,430	510 [2]	447 [2]	Yes	Yes	537 [2]	447 [2]	Yes	Yes
	WBR	400	388 [2]	326 [2]	Yes	Yes	395 [2]	334 [2]	Yes	Yes
Euclid Av. (SR-83) & SR-60 EB Ramps	EBL	900	518 [2]	489 [2]	Yes	Yes	518 [2]	489 [2]	Yes	Yes
	EBT/R	1,270	883 [2]	687 [2]	Yes	Yes	903 [2]	695 [2]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Source: (Urban Crossroads, 2019e, Table 8-2)

Table 4.12-22 Existing plus Project Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
7	Central Av. & El Prado Rd.																	
	Existing:																	
	-Without Improvements	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	29.0	**61.2**	C	**E**
	-With Improvements	TS	1	2	1>	**2**	3	0	1	1	0	1	1	1>	27.8	31.5	C	C
	E+P (Building 1):																	
	-Without Improvements	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	29.8	**64.6**	C	**E**
	-With Improvements	TS	1	2	1>	**2**	3	0	1	1	0	1	1	1>	28.0	32.9	C	C
	E+P (Project Buildout):																	
	-Without Improvements	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	30.5	**67.2**	C	**E**
	-With Improvements	TS	1	2	1>	**2**	3	0	1	1	0	1	1	1>	28.2	34.1	C	C
8	El Prado Rd. & Kimball Av.																	
	Existing:																	
	-Without Improvements	TS	1	1	1	1	2	0	1	1	0	0	1	1>	28.1	**86.2**	C	**F**
	-With Improvements	TS	1	1	1	**2**	**1**	0	1	1	0	0	1	1>	24.4	25.7	C	C
	E+P (Building 1):																	
	-Without Improvements	TS	1	1	1	1	2	0	1	1	0	0	1	1>	30.3	**90.4**	C	**F**
	-With Improvements	TS	1	1	1	**2**	**1**	0	1	1	0	0	1	1>	24.4	26.2	C	C
	E+P (Project Buildout):																	
	-Without Improvements	TS	1	1	1	1	2	0	1	1	0	0	1	1>	34.7	**93.2**	C	**F**
	-With Improvements	TS	1	1	1	**2**	**1**	0	1	1	0	0	1	1>	24.5	26.7	C	C
22	Euclid Av. (SR-83) & Riverside Dr.																	
	Existing:																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	47.0	**55.5**	D	**E**
	-With Improvements	TS	1	2	1	1	2	1>	1	1	**1**	1	2	d	45.3	49.8	D	D
	E+P (Building 1):																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	47.6	**57.5**	D	**E**
	-With Improvements	Not Applicable																
	E+P (Project Buildout):																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	48.0	**59.4**	D	**E**
	-With Improvements	TS	1	2	1	1	2	1>	1	1	**1**	1	2	d	45.8	51.5	D	D
30	Euclid Av. (SR-83) & Pine Av.																	
	Existing:																	
	-Without Improvements	TS	1	2	1>	1	2	0	1	1	1	2	1	0	31.9	**61.5**	C	**E**
	-With Improvements	TS	1	2	**1>>**	1	2	0	1	1	1	2	1	0	39.1	36.1	C	D
	E+P (Building 1):																	
	-Without Improvements	TS	1	2	1>	1	2	0	1	1	1	2	1	0	33.3	**67.5**	C	**E**
	-With Improvements	TS	1	2	**1>>**	1	2	0	1	1	1	2	1	0	40.4	39.7	D	D
	E+P (Project Buildout):																	
	-Without Improvements	TS	1	2	1>	1	2	0	1	1	1	2	1	0	34.6	**71.3**	C	**E**
	-With Improvements	TS	1	2	**1>>**	1	2	0	1	1	1	2	1	0	41.8	42.9	D	D
43	Archibald Av. & Schleisman Rd.																	
	Existing:																	
	-Without Improvements	TS	2	3	1	2	3	1	2	3	1	2	3	1	**80.1**	46.5	**F**	D
	-With Improvements[4]	TS	2	3	1	2	3	1	2	3	1	2	3	1	32.8	29.6	C	C
	E+P (Building 1):																	
	-Without Improvements	TS	2	3	1	2	3	1	2	3	1	2	3	1	**80.1**	50.9	**F**	D
	-With Improvements	Not Applicable																
	E+P (Project Buildout):																	
	-Without Improvements	TS	2	3	1	2	3	1	2	3	1	2	3	1	**88.1**	55.0	**F**	D
	-With Improvements[4]	TS	2	3	1	2	3	1	2	3	1	2	3	1	34.5	30.1	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

[4] Improvement consists of modifying the traffic signal to extend the cycle length to 130 seconds.

Source: (Urban Crossroads, 2019e, Table 6-5)

Table 4.12-23 Opening Year (2022) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
7	Central Av. & El Prado Rd.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	35.0	**81.1**	D	F
	-With Improvements	TS	1	2	1>	**2**	3	0	1	1	0	1	1	1>	30.1	37.5	C	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1>	1	3	0	1	1	0	1	1	1>	36.9	**87.7**	D	F
	-With Improvements	TS	1	2	1>	**2**	3	0	1	1	0	1	1	1>	30.6	40.9	C	D
8	El Prado Rd. & Kimball Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	1	1	1	2	0	1	1	0	0	1	1>	35.0	**124.9**	C	F
	-With Improvements	TS	1	1	1	**2**	**1**	0	1	1	0	0	1	1>	25.4	27.9	C	C
	2022 With Project:																	
	-Without Improvements	TS	1	1	1	1	2	0	1	1	0	0	1	1>	48.8	**132.4**	D	F
	-With Improvements	TS	1	1	1	**2**	**1**	0	1	1	0	0	1	1>	25.6	29.4	C	C
22	Euclid Av. (SR-83) & Riverside Dr.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	**59.0**	**83.7**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1>	1	1	**1**	1	2	d	39.9	47.8	D	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	**61.2**	**91.8**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1>	1	1	**1**	1	2	d	40.2	48.7	D	D
25	Euclid Av. (SR-83) & Edison Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	51.6	**60.6**	D	E
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	1	1	0	38.5	41.3	D	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**56.3**	**64.8**	E	E
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	1	1	0	39.3	42.1	D	D
27	Euclid Av. (SR-83) & Merrill Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	0	0	1	0	0	1	0	45.5	**71.5**	D	E
	-With Improvements	TS	1	**3**	1	1	**3**	0	0	1	0	0	1	0	29.2	39.9	C	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	0	0	1	0	0	1	0	47.6	**81.6**	D	F
	-With Improvements	TS	1	**3**	1	1	**3**	0	0	1	0	0	1	0	29.9	42.5	C	D
28	Euclid Av. (SR-83) & Kimball Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	42.4	52.2	D	D
	-With Improvements		Not Applicable															
	2022 With Project:																	
	-Without Improvements	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	43.2	**57.1**	D	E
	-With Improvements	TS	1	**3**	1>	2	**3**	1>	2	2	0	1	2	0	34.5	41.5	C	D

Table 4.12-23 Opening Year (2022) Intersection Analysis – With Mitigation (Cont'd)

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
30	Euclid Av. (SR-83) & Pine Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	1	2	1>	1	2	0	1	1	1	2	1	0	45.3	**101.0**	D	F
	-With Improvements	TS	1	**3**	**1>>**	1	**3**	0	1	1	1	2	1	0	35.8	39.3	D	D
	2022 With Project:																	
	-Without Improvements	TS	1	2	1>	1	2	0	1	1	1	2	1	0	50.0	**114.4**	D	F
	-With Improvements	TS	1	**3**	**1>>**	1	**3**	0	1	1	1	2	1	0	38.6	46.6	D	D
42	Archibald Av. & Limonite Av.																	
	2022 Without Project:																	
	-Without Improvements	TS	0	1	1>	1	1	0	0	0	0	1	0	1>	**76.8**	**63.6**	E	E
	-With Improvements	TS	0	**2**	1>	1	1	0	0	0	0	1	0	1>	31.7	37.4	C	D
	2022 With Project:																	
	-Without Improvements	TS	0	1	1>	1	1	0	0	0	0	1	0	1>	**77.2**	**66.5**	E	E
	-With Improvements	TS	0	**2**	1>	1	1	0	0	0	0	1	0	1>	32.1	41.4	C	D
43	Archibald Av. & Schleisman Rd.																	
	2022 Without Project:																	
	-Without Improvements	TS	2	3	1	2	3	1	2	3	1	2	3	1	**106.7**	**66.0**	F	E
	-With Improvements[4]	TS	2	3	1	2	3	1	2	3	1	2	3	1	38.3	33.9	D	C
	2022 With Project:																	
	-Without Improvements	TS	2	3	1	2	3	1	2	3	1	2	3	1	**116.0**	**77.8**	F	E
	-With Improvements[4]	TS	2	3	1	2	3	1	2	3	1	2	3	1	41.8	35.4	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

[4] Improvement consists of modifying the traffic signal to extend the cycle length to 130 seconds.

Source: (Urban Crossroads, 2019e, Table 7-4)

Table 4.12-24 Horizon Year (2040) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
2	SR-71 SB Ramps & Pine Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	0	0	0	0	1	1	0	1	1	1	2	0	**121.0**	**40.1**	**F**	**D**
	-With Improvements	TS	0	0	0	**1**	1	**0**	0	**2**	**0**	1	2	0	22.2	27.1	C	C
	2040 With Project:																	
	-Without Improvements	TS	0	0	0	0	1	1	0	1	1	1	2	0	**122.4**	**55.9**	**F**	**E**
	-With Improvements	TS	0	0	0	**1**	1	**0**	0	**2**	**0**	1	2	0	23.1	29.7	C	C
5	SR-71 NB Ramps & Pine Av.																	
	2040 Without Project:																	
	-Without Improvements[4]	AWS	1	1	0	0	0	0	**1**	**1**	0	0	**1**	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements[4]	**TS**	**0**	1	**1**	0	0	0	**2**	**1**	0	0	**2**	**1**	18.4	21.5	B	C
	2040 With Project:																	
	-Without Improvements[4]	AWS	1	1	0	0	0	0	**1**	**1**	0	0	**1**	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements[4]	**TS**	**0**	1	**1**	0	0	0	**2**	**1**	0	0	**2**	**1**	24.2	22.6	C	C
14	El Prado Rd. & Mountain Av.																	
	2040 Without Project:																	
	-Without Improvements	CSS	0	1	0	0	1	0	0	0	0	0	1	0	14.5	20.6	B	C
	-With Improvements		Not Applicable															
	2040 With Project:																	
	-Without Improvements	CSS	0	1	0	0	1	0	0	0	0	0	1	0	17.3	**64.7**	C	**F**
	-With Improvements	**TS**	0	1	0	0	1	0	0	0	0	0	1	0	10.5	10.6	B	B
15	El Prado Rd. & Pine Av.																	
	2040 Without Project:																	
	-Without Improvements[4]	AWS	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements[4]	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	20.8	31.6	C	C
	2040 With Project:																	
	-Without Improvements[4]	AWS	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements[4]	**TS**	0	0	0	0	1	0	**1**	**2**	0	0	**2**	0	37.7	54.3	D	D
20	Euclid Av. (SR-83) & SR-60 EB Ramps																	
	2040 Without Project:																	
	-Without Improvements	TS	0	2	1	1	2	0	1	1	0	0	0	0	**100.8**	**81.7**	**F**	**F**
	-With Improvements	TS	0	2	1	**2**	2	0	1	1	**1**	0	0	0	30.0	22.1	C	C
	2040 With Project:																	
	-Without Improvements	TS	0	2	1	1	2	0	1	1	0	0	0	0	**103.8**	**87.1**	**F**	**F**
	-With Improvements	TS	0	2	1	**2**	2	0	1	1	**1**	0	0	0	30.7	22.1	C	C
22	Euclid Av. (SR-83) & Riverside Dr.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	**129.9**	**>200.0**	**F**	**F**
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	1>	1	**2**	**1**	1	2	d	37.0	45.8	D	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1>	1	1	0	1	2	d	**136.2**	**>200.0**	**F**	**F**
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	1>	1	**2**	**1**	1	2	d	37.2	46.4	D	D

Table 4.12-24 Horizon Year (2040) Intersection Analysis – With Mitigation (Cont'd)

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
23	Euclid Av. (SR-83) & Chino Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	0	1	0	**56.5**	**121.9**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	**1**	1	0	25.9	36.3	C	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	0	1	0	**61.8**	**128.0**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	**1**	1	0	26.1	37.7	C	D
24	Euclid Av. (SR-83) & Schaefer Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**155.8**	**172.7**	F	F
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	1	**2**	1	1	1	1	0	52.2	41.5	D	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**165.1**	**180.7**	F	F
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	1	**2**	1	1	1	1	0	54.9	42.9	D	D
25	Euclid Av. (SR-83) & Edison Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**>200.0**	**>200.0**	F	F
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	**1>**	**2**	**3**	1	**2**	**2**	**1>**	41.9	43.2	D	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**>200.0**	**>200.0**	F	F
	-With Improvements	TS	**2**	**3**	1	**2**	**3**	**1>**	**2**	**3**	1	**2**	**2**	**1>**	42.7	44.1	D	D
26	Euclid Av. (SR-83) & Eucalyptus Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**69.2**	**155.8**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	**2**	1	**1**	25.9	45.2	C	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	1	0	**75.9**	**162.8**	E	F
	-With Improvements	TS	1	**3**	1	1	**3**	1	1	1	1	**2**	1	**1**	26.6	47.3	C	D
27	Euclid Av. (SR-83) & Merrill Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1	1	2	0	0	1	0	0	1	0	**117.6**	**>200.0**	F	F
	-With Improvements	TS	1	**3**	**1>**	1	**3**	0	**1**	1	0	**2**	1	**1>**	25.3	46.1	C	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1	1	2	0	0	1	0	0	1	0	**120.8**	**>200.0**	F	F
	-With Improvements	TS	1	**3**	**1>**	1	**3**	0	**1**	1	0	**2**	1	**1>**	25.5	50.4	C	D
28	Euclid Av. (SR-83) & Kimball Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	**101.3**	**152.6**	F	F
	-With Improvements	TS	1	**3**	1>	2	**3**	1>	2	2	0	**2**	2	0	35.0	52.7	C	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	1>	2	2	1>	2	2	0	1	2	0	**114.1**	**163.3**	F	F
	-With Improvements	TS	1	**3**	1>	2	**3**	1>	2	2	0	**2**	2	0	35.9	54.9	D	D

Table 4.12-24 Horizon Year (2040) Intersection Analysis – With Mitigation (Cont'd)

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
38	Flight Av. & Kimball Av.																	
	2040 Without Project:																	
	-Without Improvements	CSS	0	1	0	0	1	0	1	2	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements	**TS**	0	1	0	**1**	1	0	1	2	0	1	**2**	**1**	43.2	19.2	D	B
	2040 With Project:																	
	-Without Improvements	CSS	0	1	0	0	1	0	1	2	0	1	1	0	**>100.0**	**>100.0**	**F**	**F**
	-With Improvements	**TS**	0	1	0	**1**	1	0	1	2	0	1	**2**	**1**	45.2	19.5	D	B
40	Hellman Av. & Kimball Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	1	2	0	**1**	2	d	1	**1**	1>	**2**	**2**	**1**	32.9	**>200.0**	C	**F**
	-With Improvements	TS	**2**	2	0	**1**	2	d	1	**2**	1>	**2**	**2**	**1**	31.6	43.0	C	D
	2040 With Project:																	
	-Without Improvements	TS	1	2	0	**1**	2	d	1	**1**	1>	**2**	**2**	**1**	33.4	**>200.0**	C	**F**
	-With Improvements	TS	**2**	2	0	**1**	2	d	1	**2**	1>	**2**	**2**	**1**	31.9	44.3	C	D
42	Archibald Av. & Limonite Av.																	
	2040 Without Project:																	
	-Without Improvements	TS	**1**	1	1>	1	1	0	**1**	**1**	0	1	**1**	1>	**>200.0**	**>200.0**	**F**	**F**
	-With Improvements	TS	**1**	**3**	1>	**2**	**3**	0	**2**	**2**	0	**2**	**2**	1>	40.5	52.4	D	D
	2040 With Project:																	
	-Without Improvements	TS	**1**	1	1>	1	1	0	**1**	**1**	0	1	**1**	1>	**>200.0**	**>200.0**	**F**	**F**
	-With Improvements	TS	**1**	**3**	1>	**2**	**3**	0	**2**	**2**	0	**2**	**2**	1>	41.0	54.0	D	D

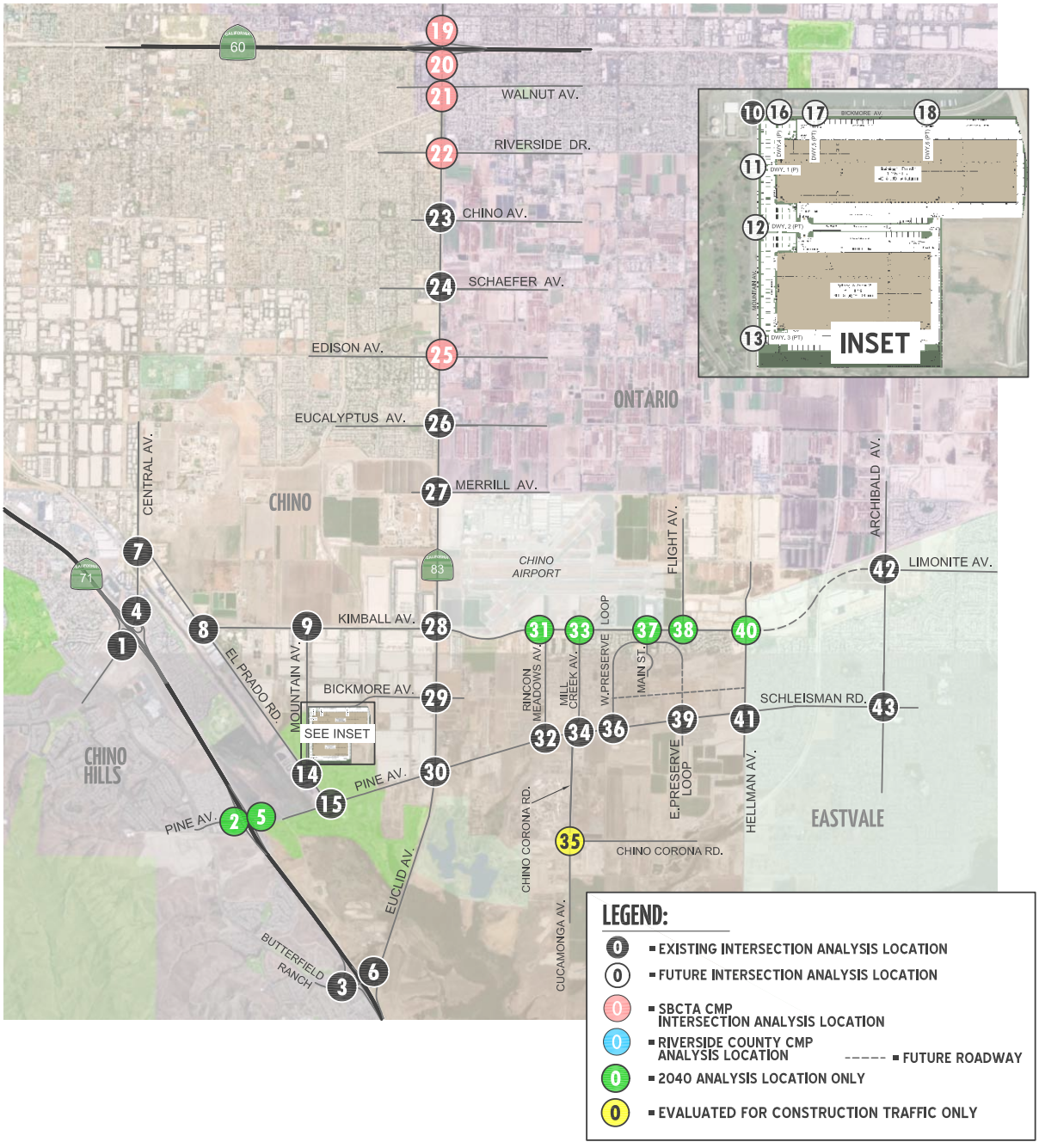
[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Includes additional lanes consistent with the planned Pine Avenue extension.

Source: (Urban Crossroads, 2019e, Table 8-4)

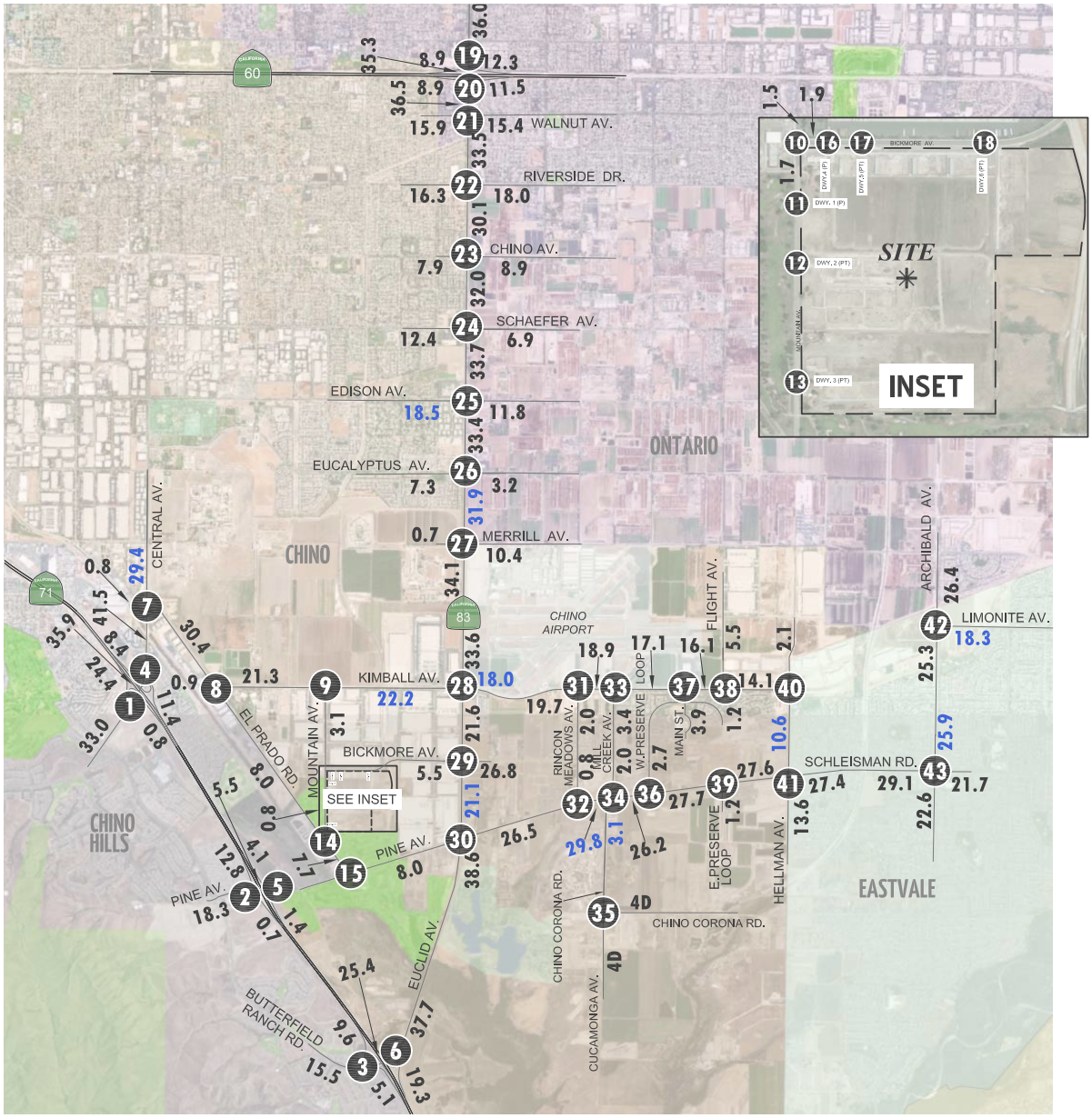


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-1

STUDY AREA INTERSECTION LOCATIONS



LEGEND:

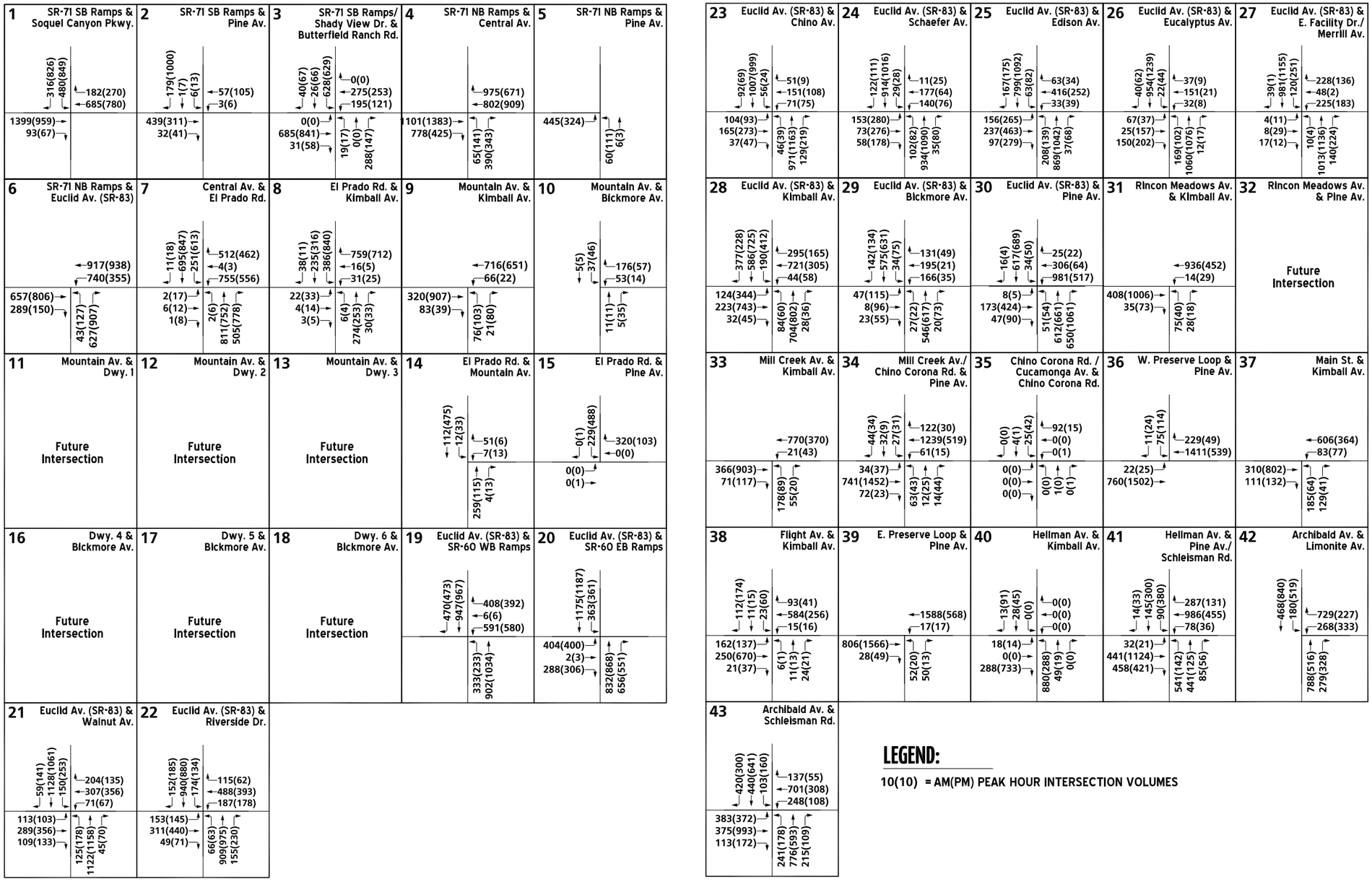
10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0 = ESTIMATED VEHICLES PER DAY (1000'S)

Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-2

EXISTING AVERAGE DAILY TRAFFIC (PCE)

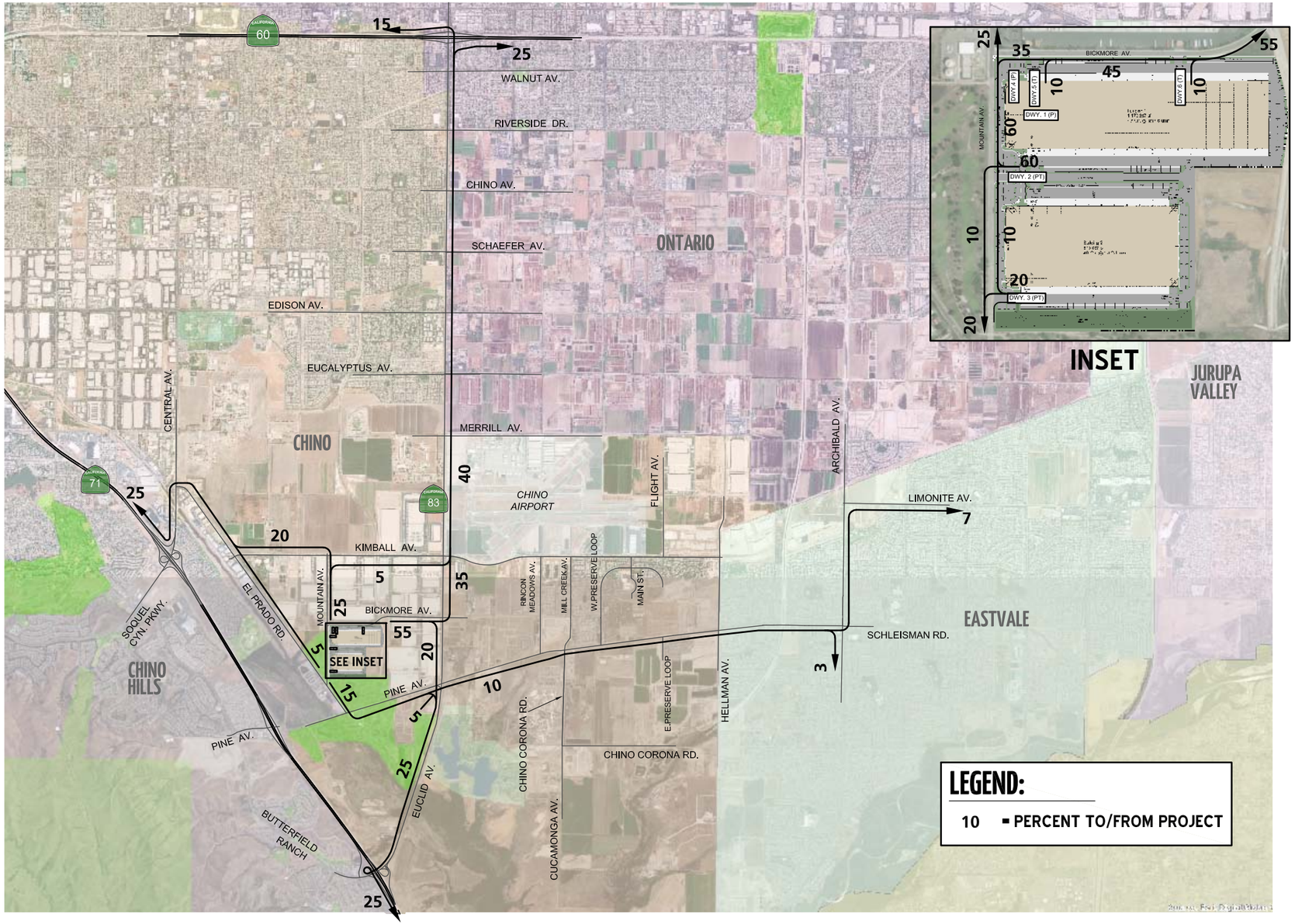


Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-3

EXISTING PEAK HOUR INTERSECTION VOLUMES (PCE)

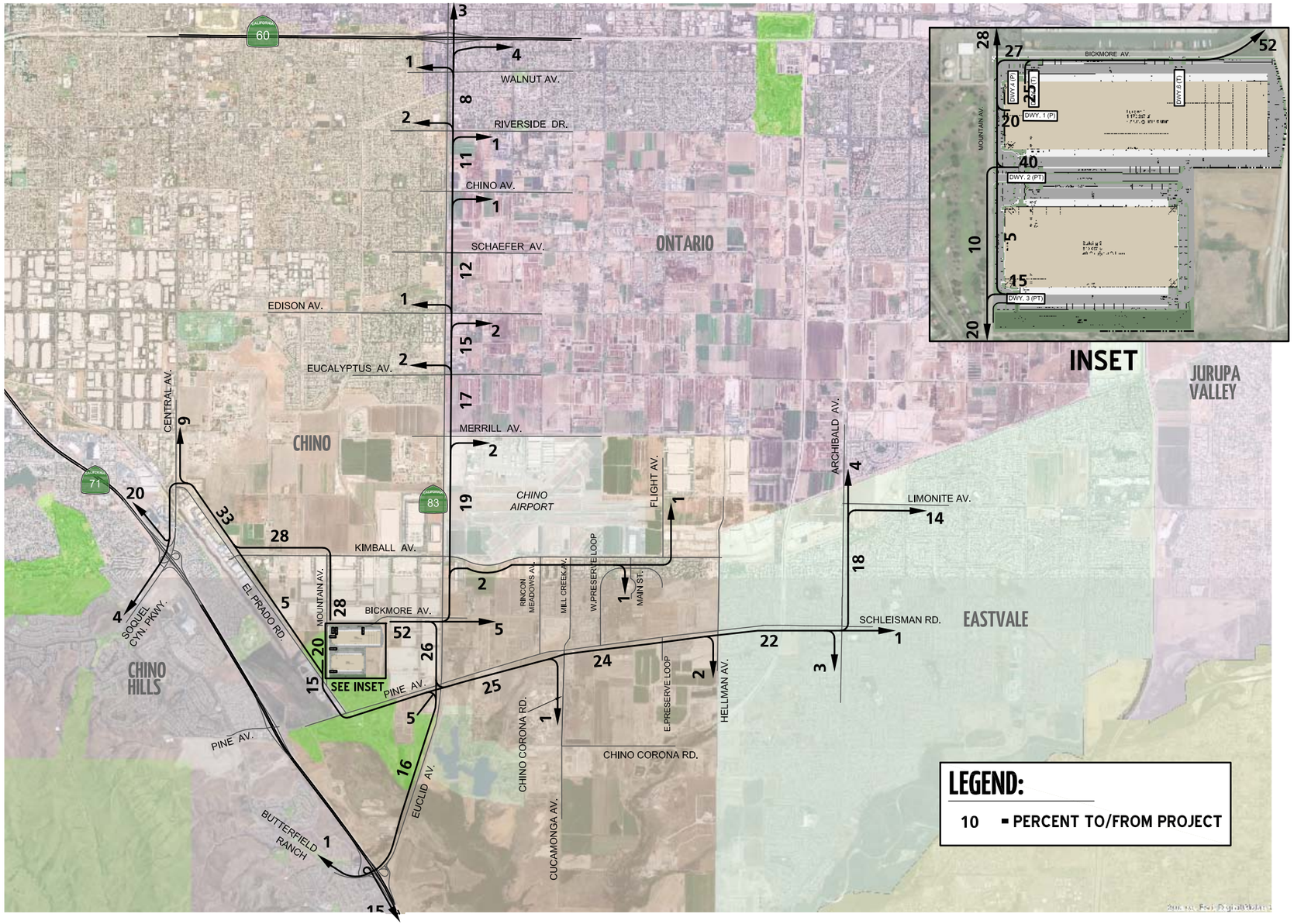


Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-4

PROJECT TRUCK TRIP DISTRIBUTION – NEAR TERM

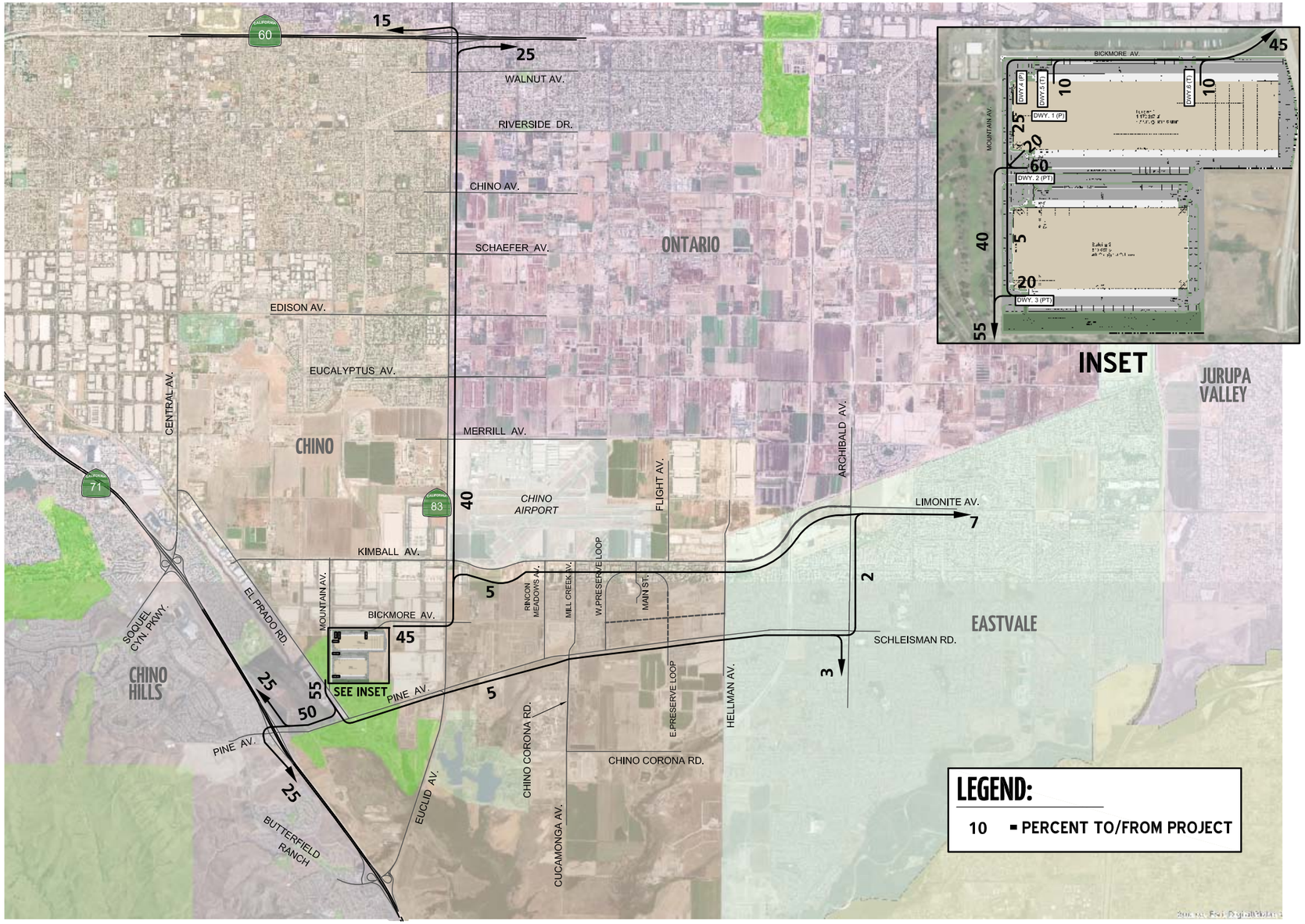


Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-5

PROJECT PASSENGER CAR TRIP DISTRIBUTION – NEAR-TERM

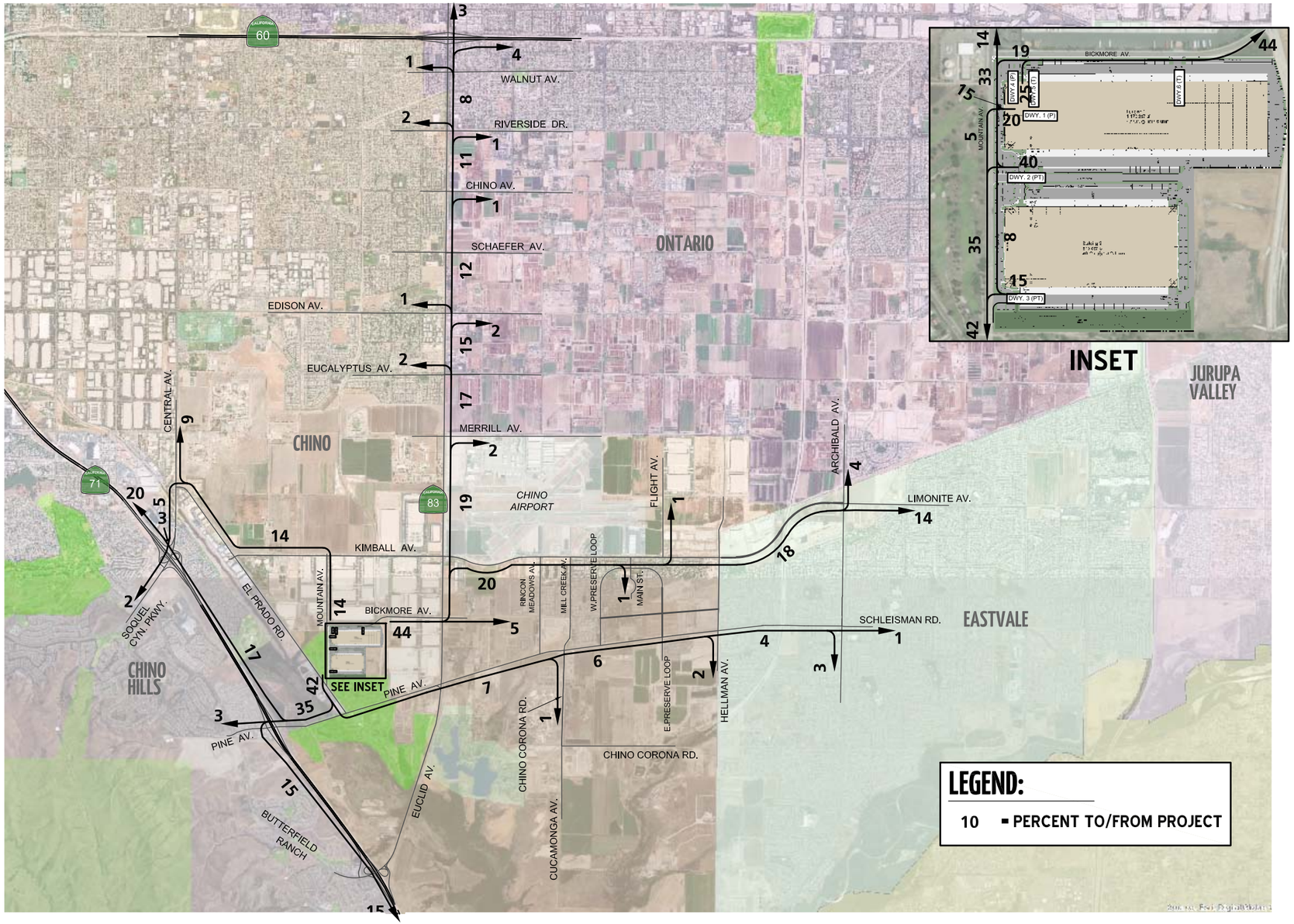


Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-6

PROJECT TRUCK TRIP DISTRIBUTION – HORIZON YEAR



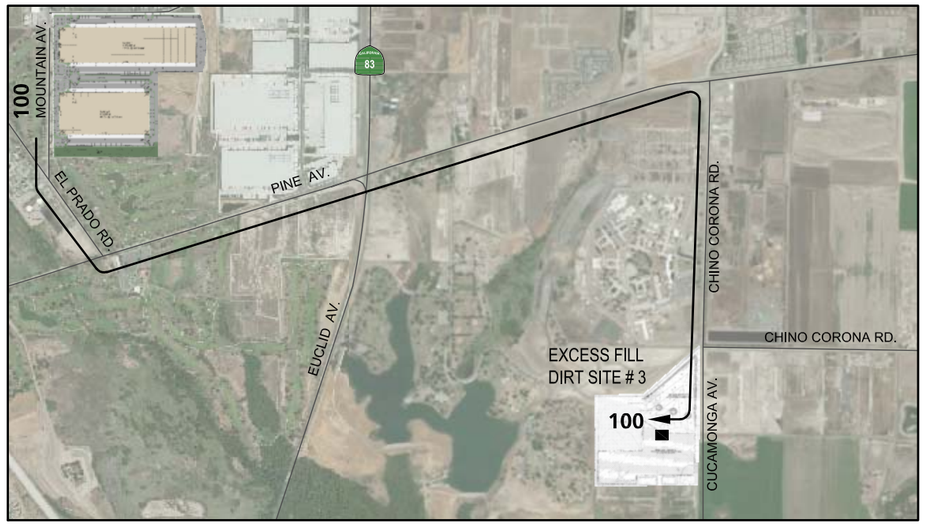
Source(s): Urban Crossroads (11-06-2019)

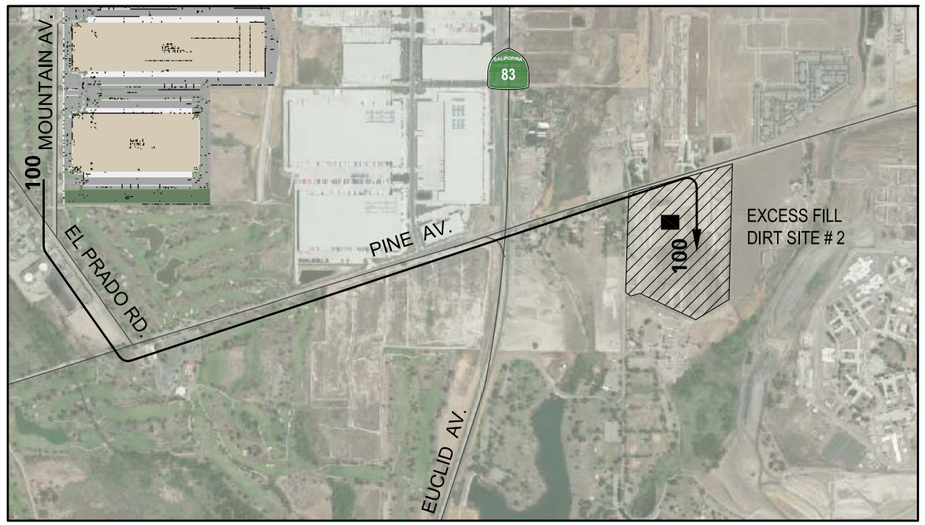
Not to Scale

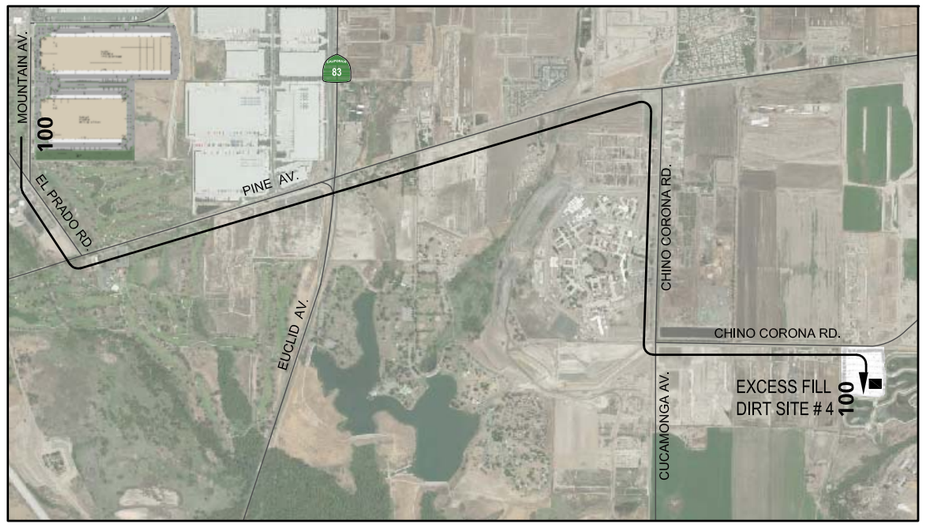
Figure 4.12-7

PROJECT PASSENGER CAR TRIP DISTRIBUTION – HORIZON YEAR









LEGEND:

10 = PERCENT TO/FROM PROJECT

■ = STAGING AREA

Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-8

HAUL ROUTES BETWEEN THE PROJECT AND EXCESS FILL DIRT SITES (1 OF 2)



LEGEND:

10 = PERCENT TO/FROM PROJECT

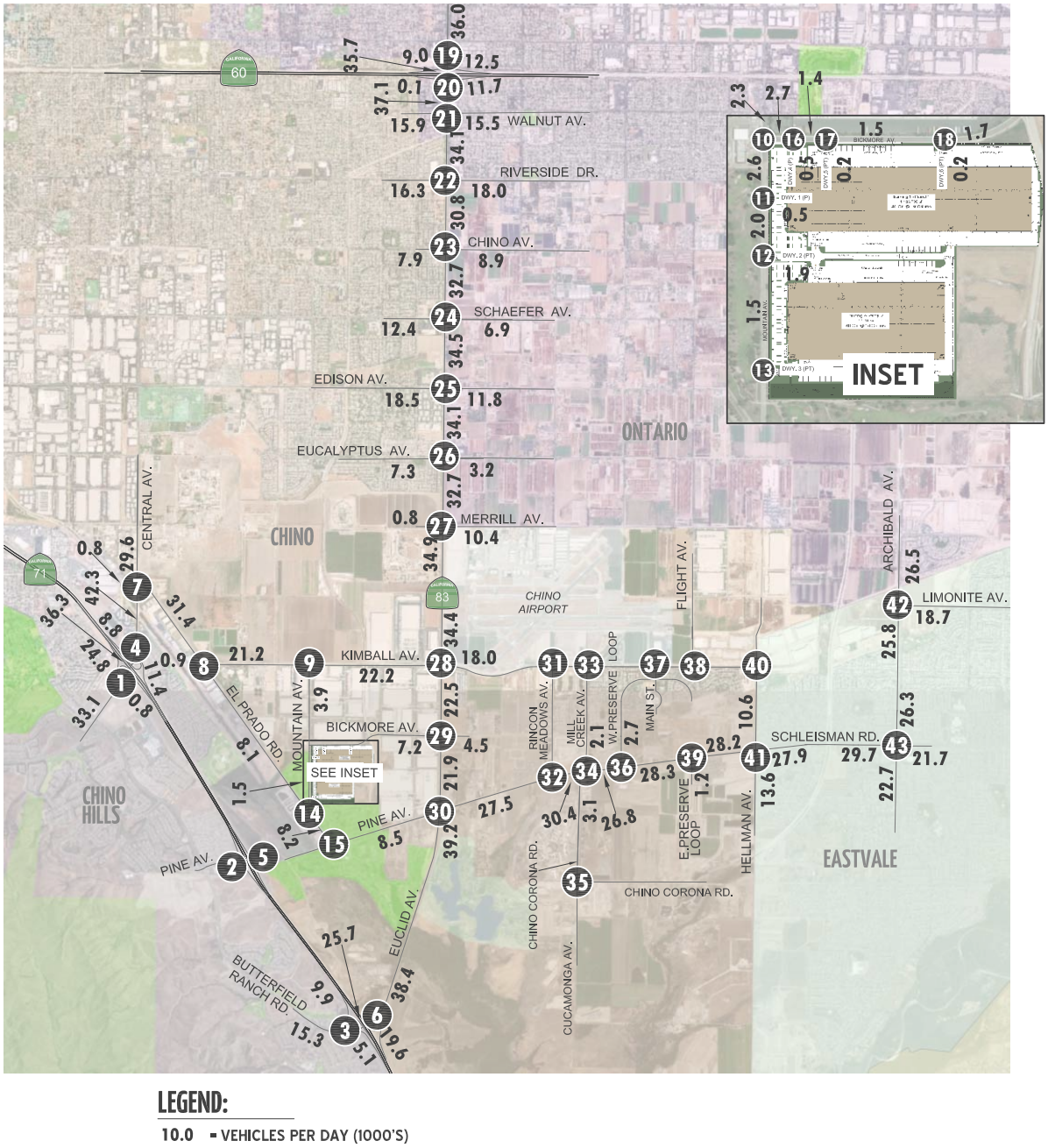
■ = STAGING AREA

Source(s): Urban Crossroads (11-06-2019)

Not to Scale

Figure 4.12-9

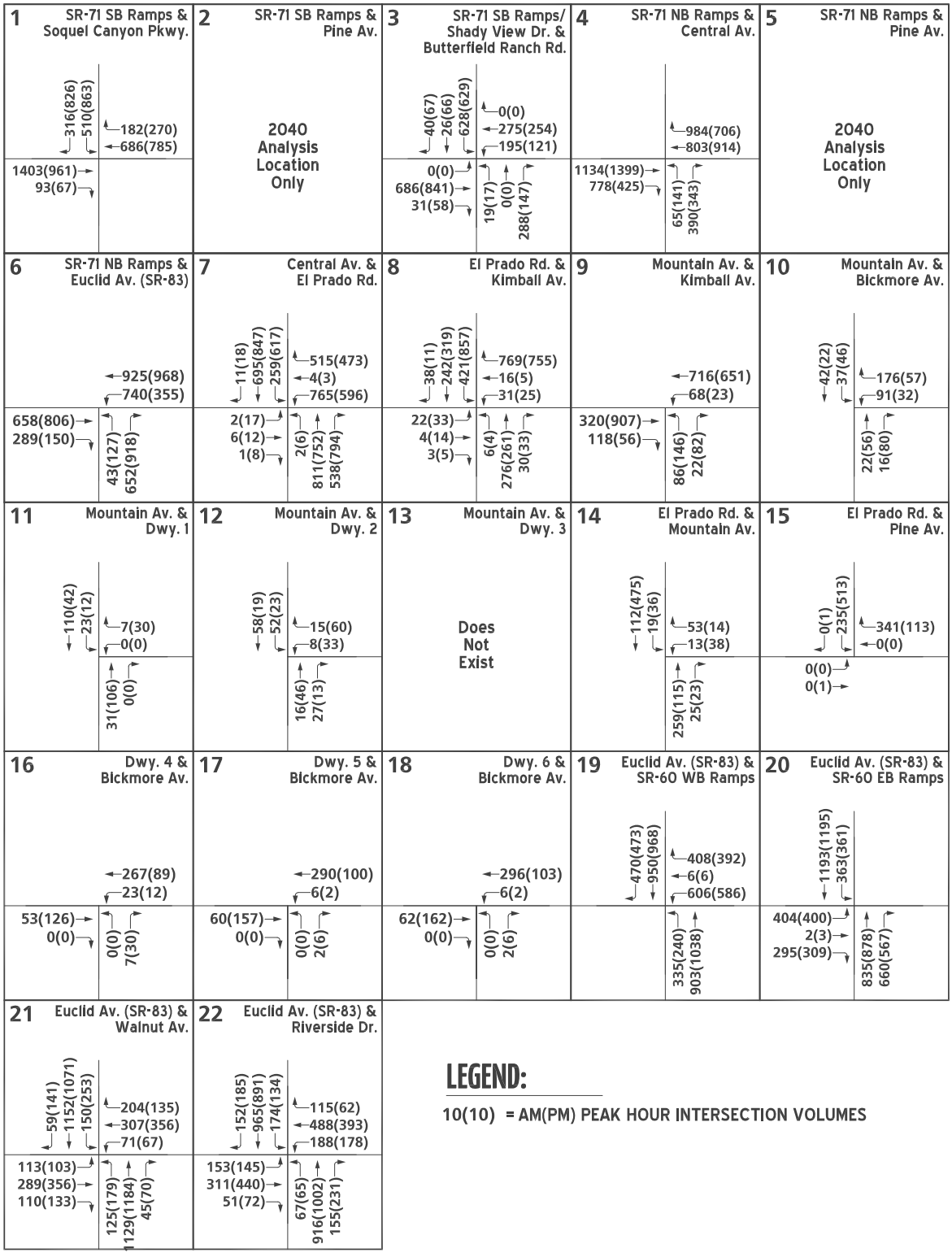
HAUL ROUTES BETWEEN THE PROJECT AND EXCESS FILL DIRT SITES (2 OF 2)



Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-10
EXISTING PLUS PROJECT (BUILDING 1) AVERAGE DAILY TRAFFIC

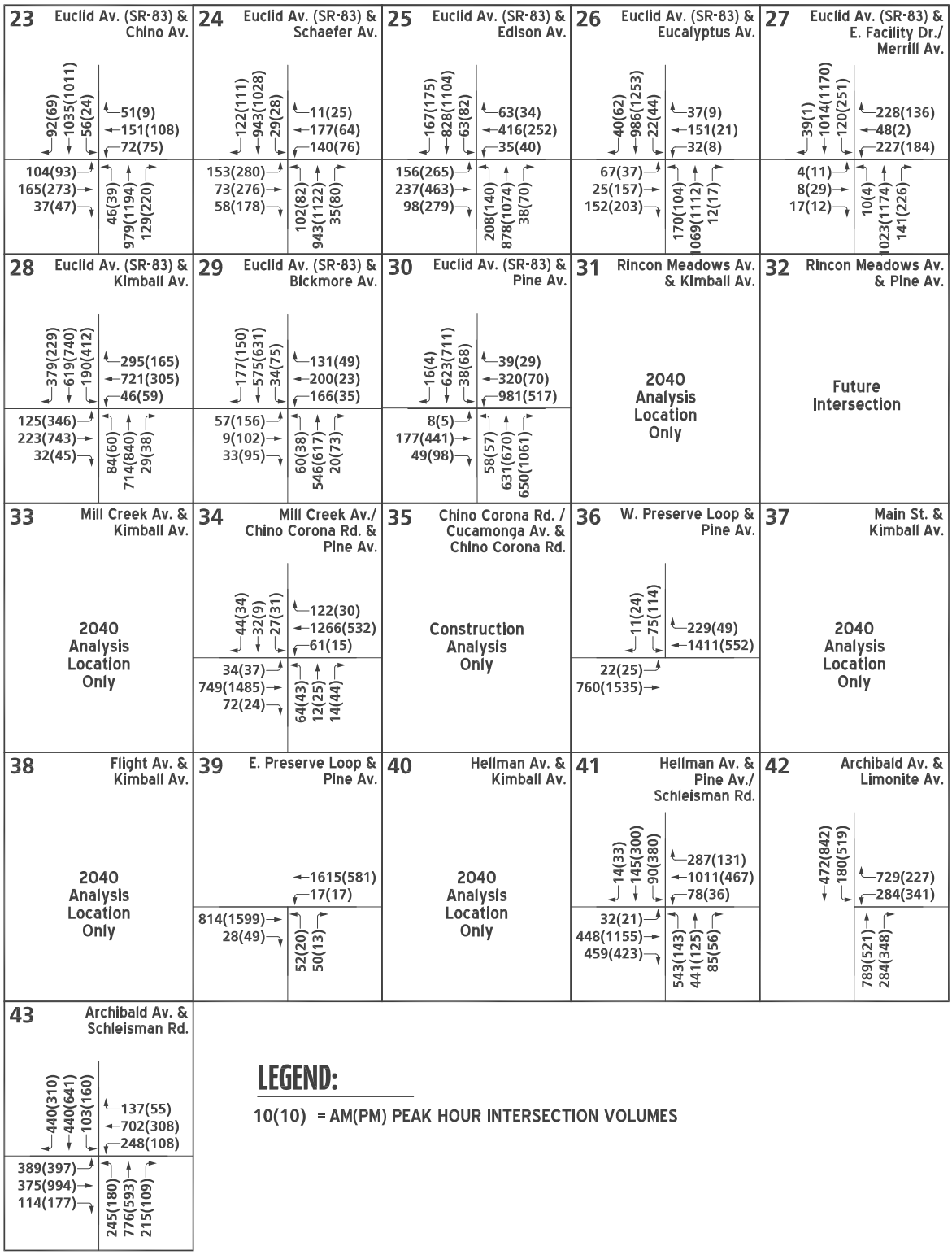


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-11

EXISTING PLUS PROJECT (BUILDING 1) PEAK HOUR INTERSECTION VOLUMES (1 OF 2)

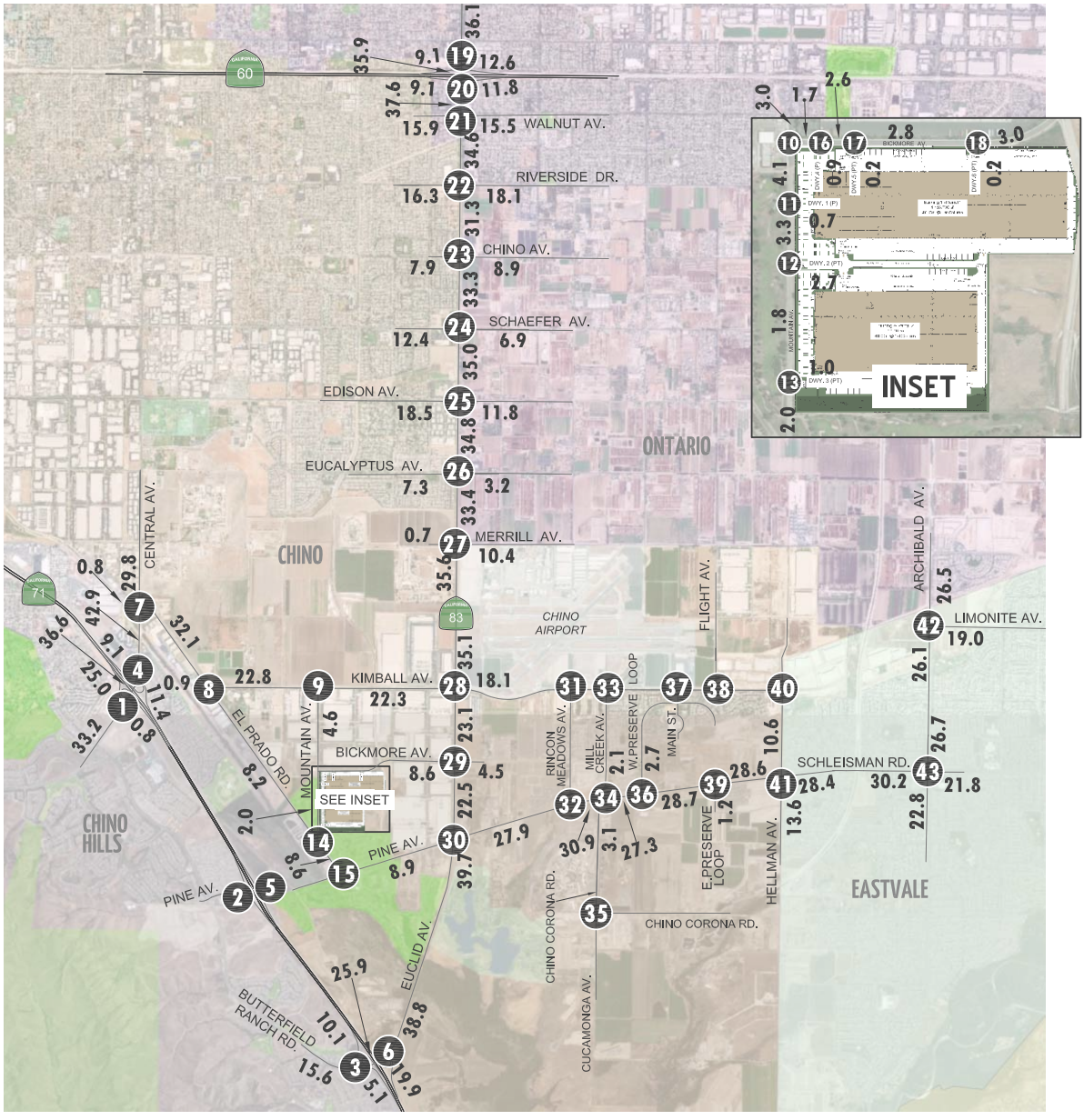


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-12

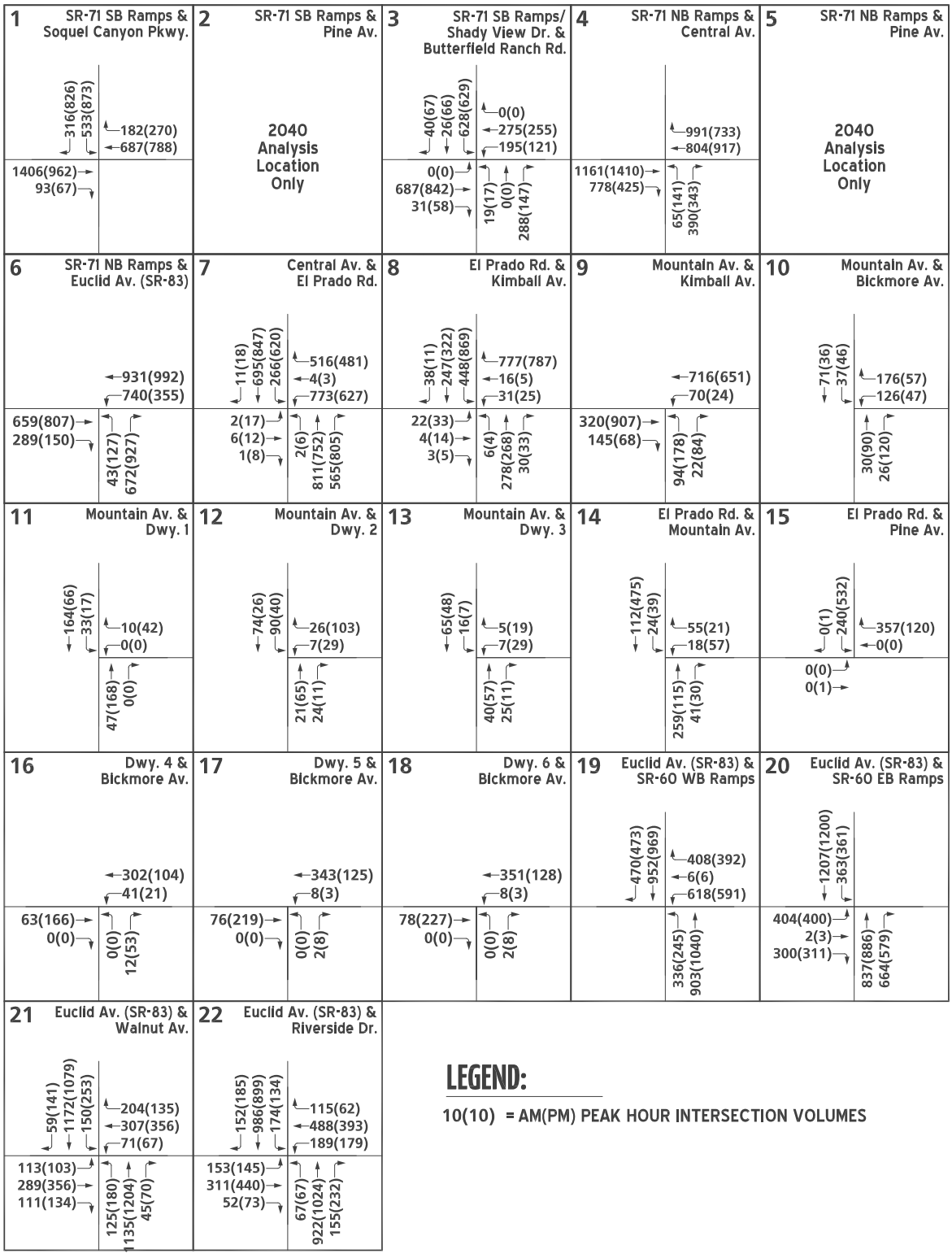
EXISTING PLUS PROJECT (BUILDING 1) PEAK HOUR INTERSECTION VOLUMES (2 OF 2)



Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-13
EXISTING PLUS PROJECT (PROJECT BUILDOUT) AVERAGE DAILY TRAFFIC

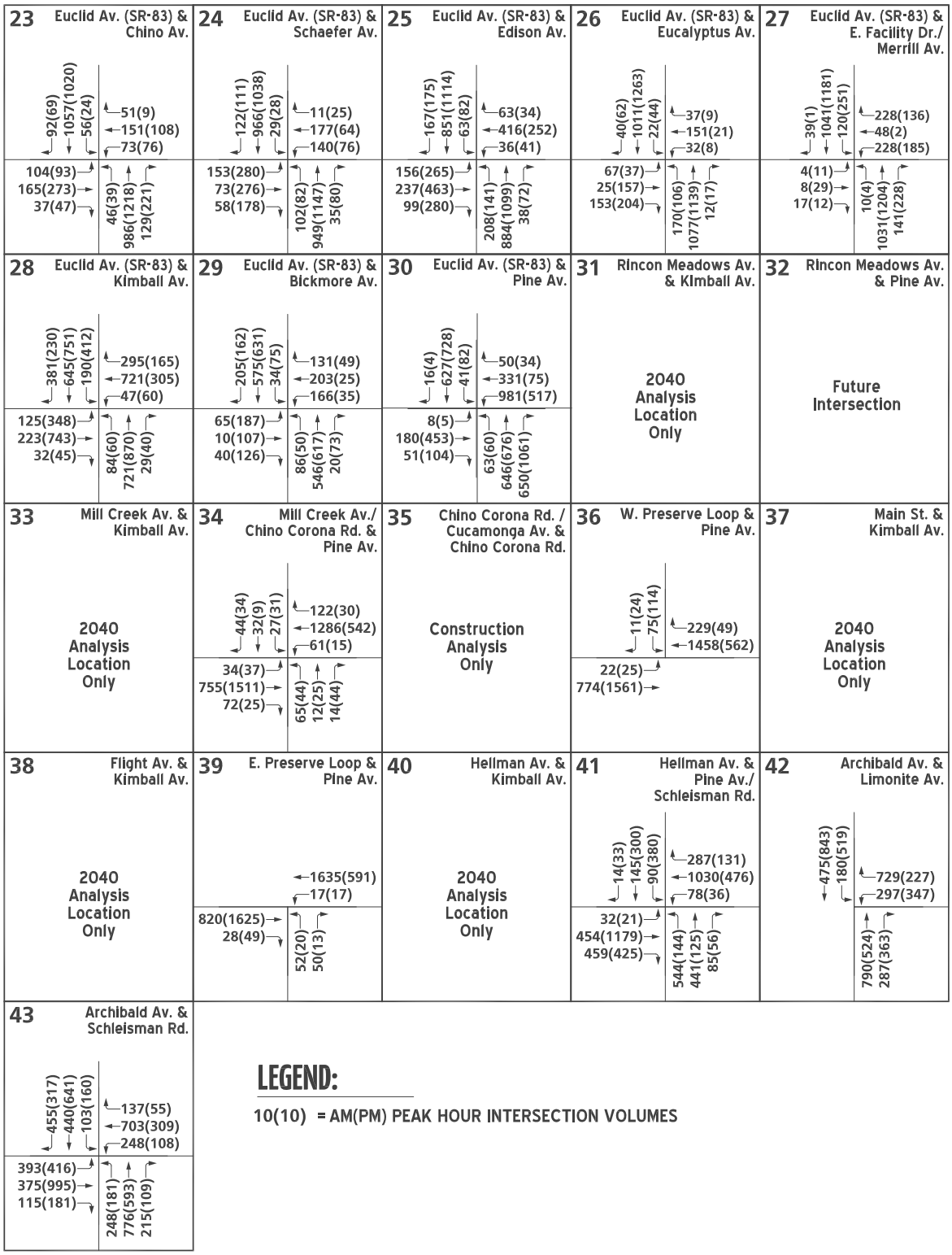


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-14

EXISTING PLUS PROJECT (PROJECT BUILDOUT) PEAK HOUR INTERSECTION VOLUMES (1 OF 2)

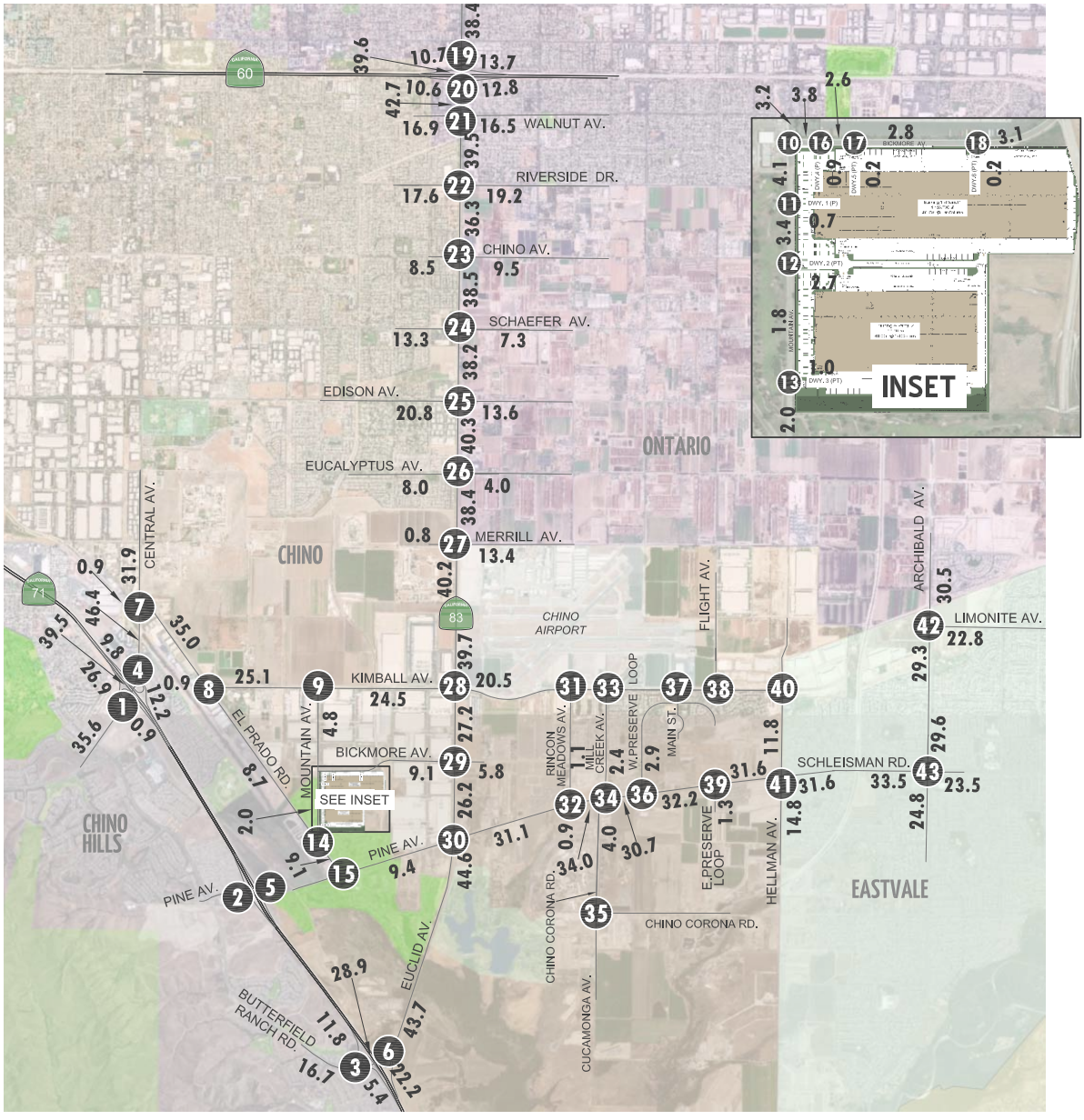


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-15

EXISTING PLUS PROJECT (PROJECT BUILDOUT) PEAK HOUR INTERSECTION VOLUMES (2 OF 2)

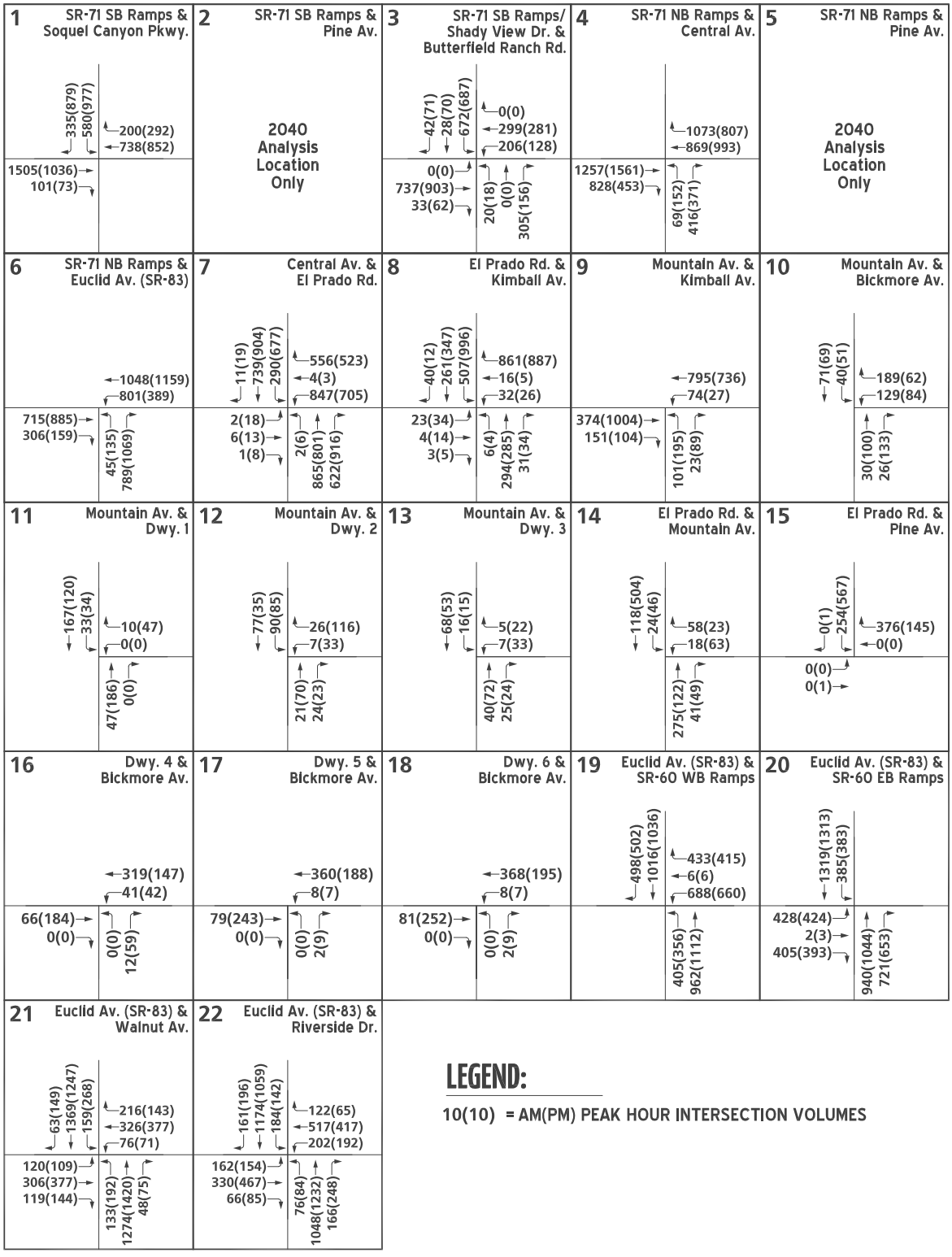


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-16

OPENING YEAR (2022) AVERAGE DAILY TRAFFIC

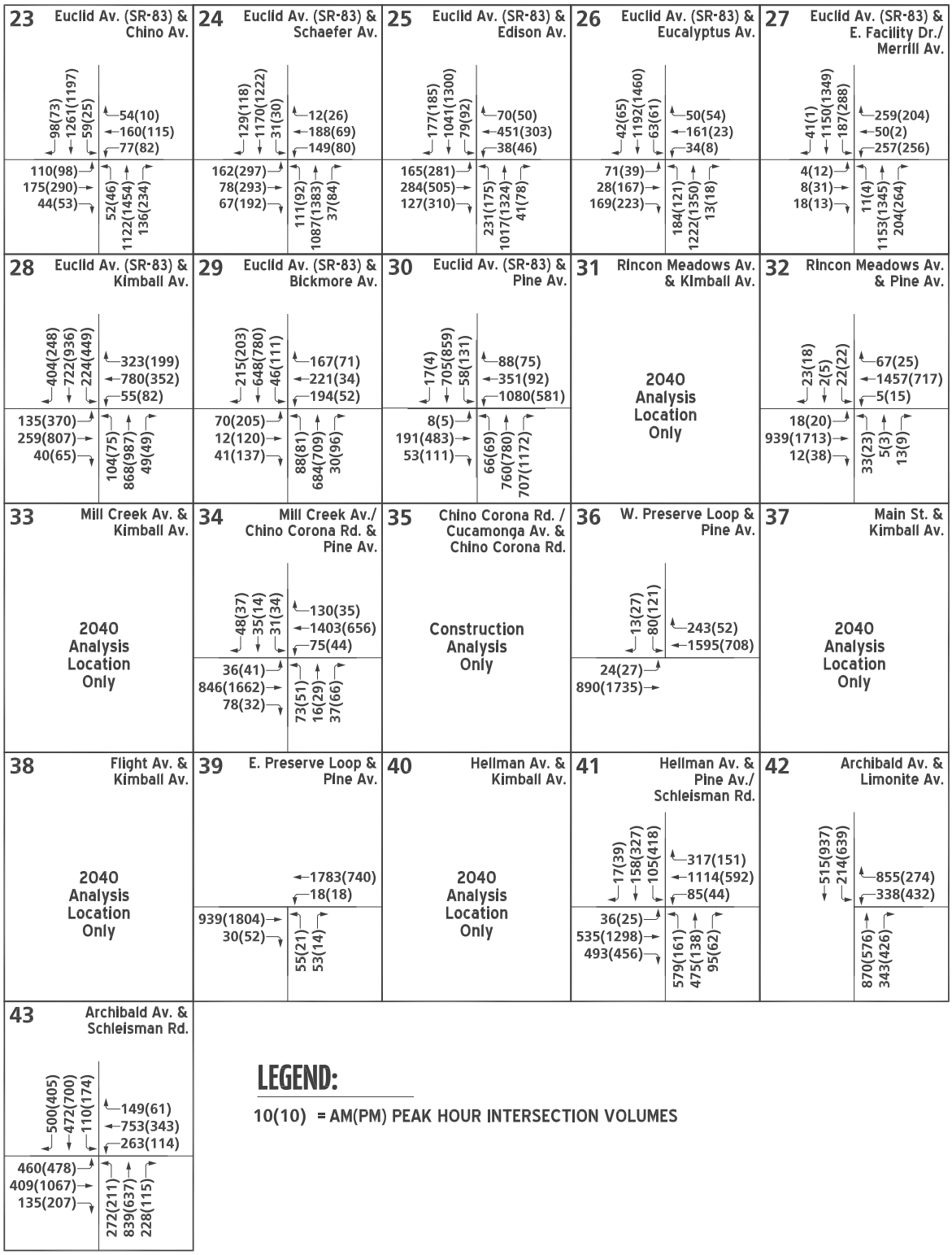


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-17

OPENING YEAR (2022) PEAK HOUR INTERSECTION VOLUMES (1 OF 2)

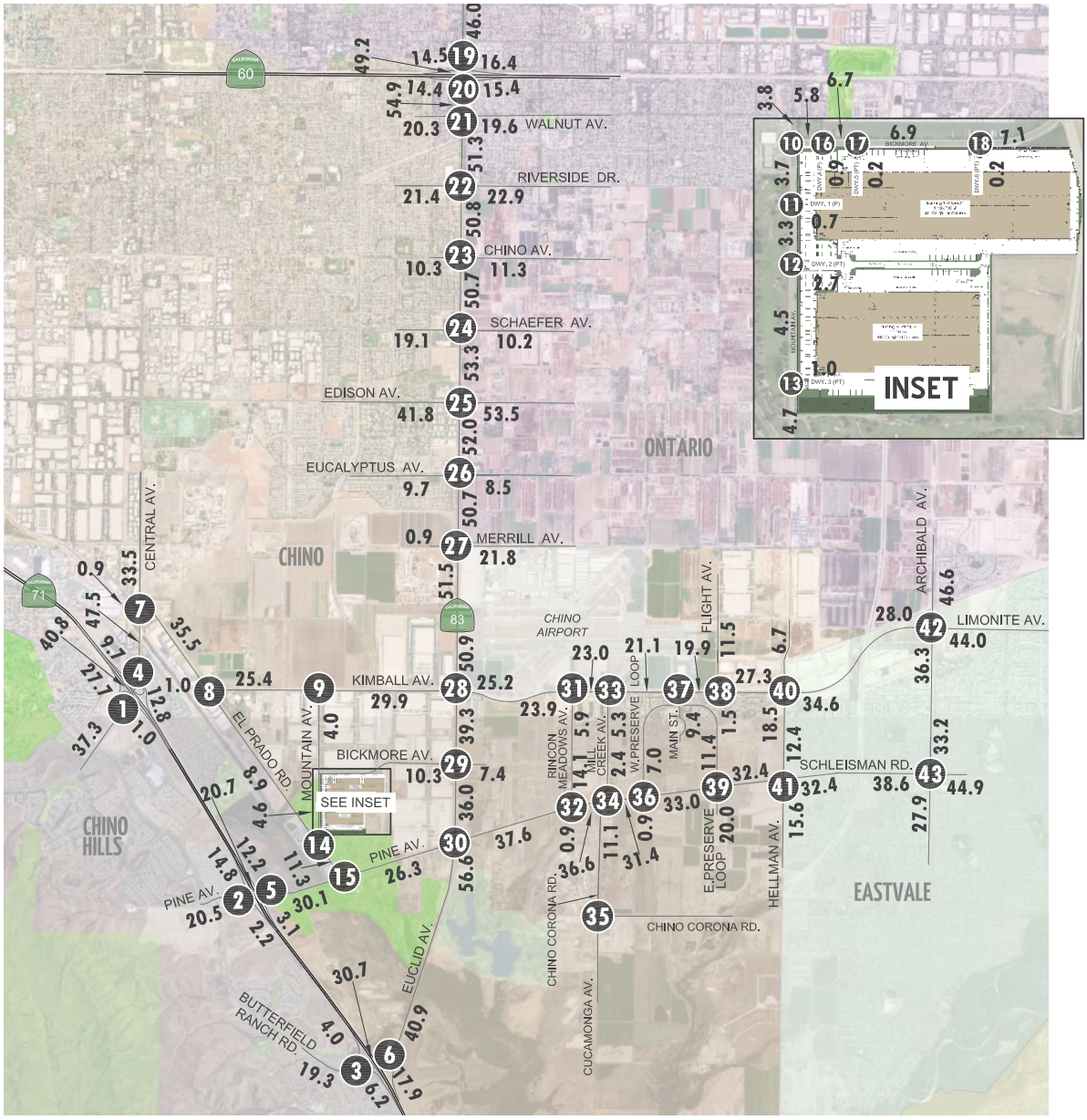


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-18

OPENING YEAR (2022) PEAK HOUR INTERSECTION VOLUMES (2 OF 2)

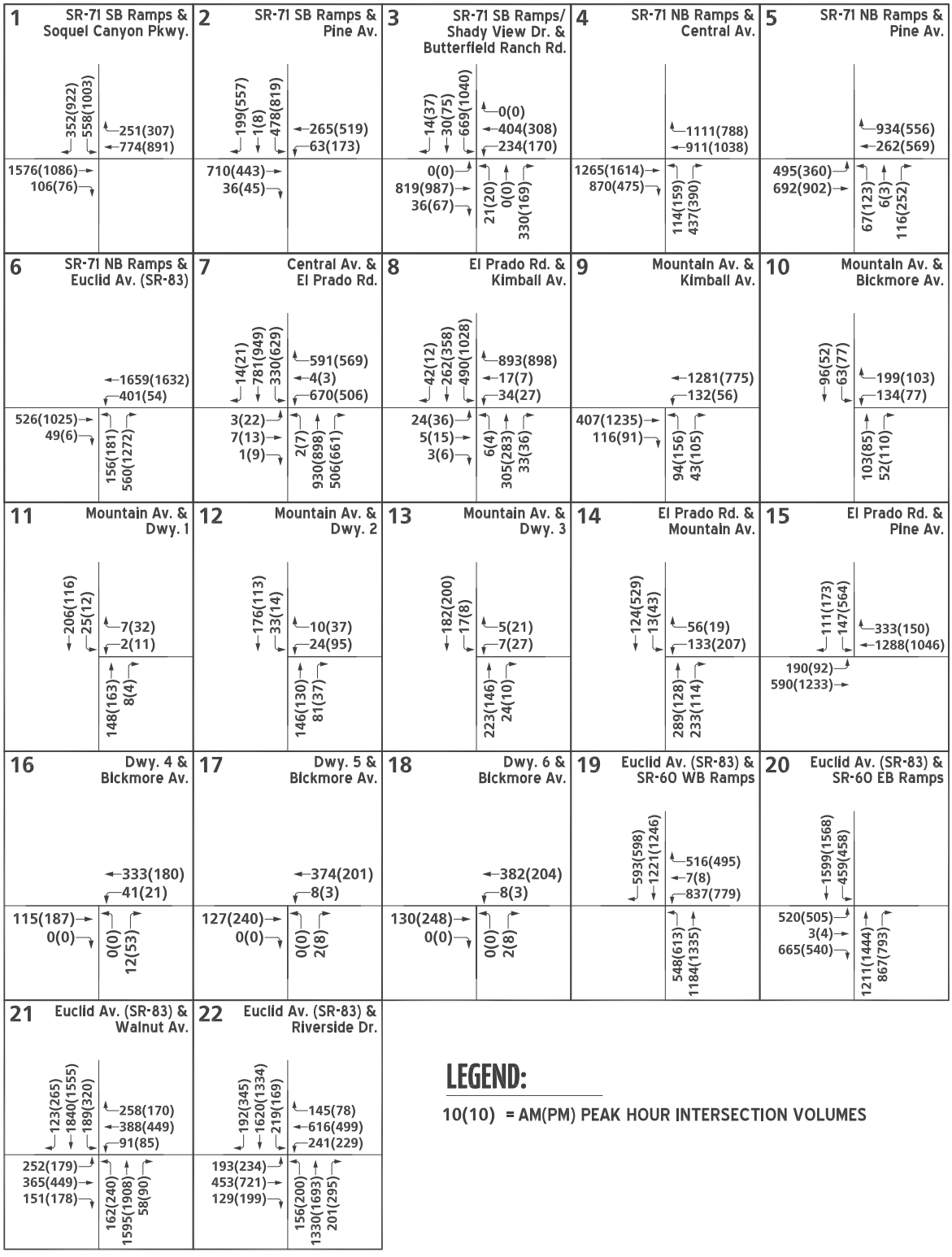


Source(s): Urban Crossroads 11-09-2020

Figure 4.12-19

Not to Scale

HORIZON YEAR (2040) AVERAGE DAILY TRAFFIC

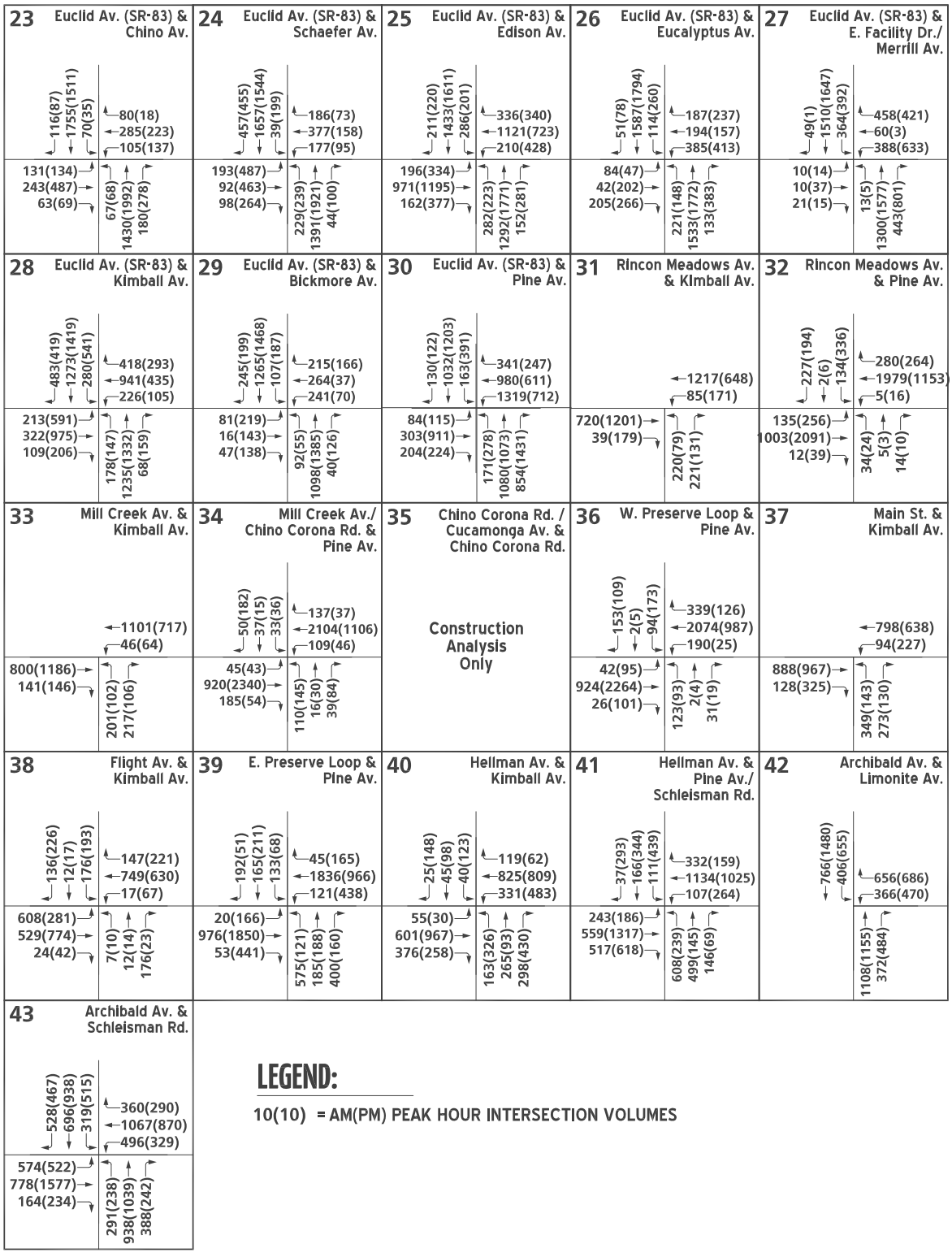


Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-20

HORIZON YEAR (2040) PEAK HOUR INTERSECTION VOLUMES (1 OF 2)



Source(s): Urban Crossroads 11-09-2020

Not to Scale

Figure 4.12-21

HORIZON YEAR (2040) PEAK HOUR INTERSECTION VOLUMES (2 OF 2)

4.13 TRIBAL CULTURAL RESOURCES

The analysis in this Subsection relies on information contained in a report titled "A Cultural Resources Study for the Majestic Chino Heritage Project," prepared by Brian F. Smith and Associates, Inc. (hereafter "BFSA") and dated September 11, 2019 (BFSA, 2019a). This report, which includes the findings from archaeological pedestrian surveys; a cultural records search and sacred lands search and an inventory of all recorded prehistoric and tribal cultural resources located on and within a one-mile radius of the Project Site and the excess fill dirt sites, is provided as *Technical Appendix D* to this EIR.

Written and oral communication between Native American tribes, BFSA, and the City of Chino is considered confidential in respect to places that have tribal cultural significance (Gov. Code § 65352.4). Although all relevant communications that occurred between Native American tribes, BFSA, and the City of Chino were relied upon to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)). Confidential information that falls under the limits described above has been redacted from *Technical Appendix D* for purposes of public review.

4.13.1 EXISTING CONDITIONS

A. Regional Setting

The Project Site and excess fill dirt sites are located in the southern portion of the City of Chino, San Bernardino County, California. The Paleo-Indian Period, Archaic Period, Late Prehistoric Period, and Protohistoric Period are the four general prehistoric cultural periods represented in San Bernardino County, as summarized briefly below. Refer to *Technical Appendix D* for a detailed discussion about the prehistoric cultural periods in San Bernardino County.

- Paleo-Indian Period (Late-Pleistocene: 11,500 to 9,000 years ago). The Paleo-Indian Period is associated with the terminus of the late Pleistocene period. During this time, the climate became warmer, causing sea levels to rise and major vegetation changes to occur. Paleo Indians were attracted to multiple habitats, including mountains, marshlands, estuaries, and lakeshores, and used a more generalized adaptation of hunting and gathering to survive. (BFSA, 2019a, p. 3.0-2)

- Archaic Period (Early and Middle Holocene: 9,000 to 1,300 years ago). The Archaic Period marks a shift from the Pleistocene to the Holocene period, representing a time when substantial environmental changes occurred. In southern California, this period is associated with a number of different cultures, complexes, traditions, periods, and horizons, including San Dieguito, La Jolla, Encinitas, Millingstone, Pauma, and Intermediate. (BFSA, 2019a, pp. 3.0-2 - 3.0-3)

- Late Prehistoric Period (Late Holocene: 1,300 years ago to 1790). Approximately 1,350 years before present, a Shoshonean-speaking group moved into San Bernardino County, marking the transition to the Late Prehistoric period. This Period is characterized by higher population densities, the expansion of social, economic, and political systems, and innovations in technological systems. During this

Period, the San Bernardino County area was inhabited by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2019a, p. 3.0-3)

- Protohistoric (Late Holocene: 1790 to Present). At the time of Spanish contact, southwestern San Bernardino County was primarily occupied by the Gabrielino (also known ethnographically as the Tongva) and Serrano.

  The Gabrielino lived in permanent villages and smaller resource gathering camps occupied at various times of the year depending upon the seasonality of the resource. The Gabrielino territory covered much of present-day Los Angeles and Orange counties, with a southern extent was bounded by Aliso Creek, an eastern extent east of present-day City of San Bernardino (along the Santa Ana River), a northern extent including the San Fernando Valley, and a western extent including portions of the Santa Monica Mountains. Because of their access to certain resources, including a steatite source from Santa Catalina Island, the Gabrielino group was among the wealthiest and most populous aboriginal groups in all of Southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California. (BFSA, 2019a, p. 3.0-3 to 3.0-5)

  The Serrano were organized into autonomous localized lineages occupying definite, favored territories, but rarely claiming any territory far removed from the lineage's home base. As such, their definitive territory is difficult to place but is thought to include the San Bernardino Mountains east of Cajon Pass, the base of and north of the mountains near Victorville, east to Twentynine Palms, and south to the Yucaipa Valley. The Serrano were primarily hunter/gatherers. Vegetal staples varied with locality: acorns and piñon nuts were found in the foothills, and mesquite, yucca roots, cacti fruits, and piñon nuts were found in or near the desert regions. Diets were supplemented with other roots, bulbs, shoots, and seeds. (BFSA, 2019a, p. 3.0-5 to 3.0-7)

B. Study Area Setting and Existing Conditions

BFSA conducted intensive pedestrian surveys of the Project Site and excess fill dirt sites on March 14 and 15, 2019. The pedestrian surveys consisted of a series of parallel transects, spaced at approximately 20-meter intervals, which covered the entire survey areas. The Project Site and excess fill dirt sites had a ground visibility ranging from fair to good in most areas. According to the pedestrian survey, no prehistoric or tribal cultural resources were identified on the Project Site or on any of the excess fill dirt sites. (BFSA, 2019a, p. 1.0-2)

BFSA also conducted an archaeological records search through the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton, and a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The SCCIC records search identified 30 prehistoric sites that have been previously recorded within a one-mile radius of the Project Site and/or excess fill dirt sites, including two prehistoric sites that were previously recorded on Excess Fill Sites Nos. 1 and 4 (which are briefly described on the following page). The SLF research indicated that neither the Project site nor any of the excess fill dirt sites were recorded as sacred sites or locations of religious or ceremonial importance. (BFSA, 2019a, pp. 4.0-2, 5.0-1 to 5.0-3)

❑ Excess Fill Dirt Site No. 1

Prehistoric site CA-SBR-5241 was recorded within Excess Fill Dirt Site No. 1 in 1983 as a lithic scatter with projectile points. At the time, the resident of Excess Fill Dirt Site No. 1 reported the presence of the site and a 1-meter x 1-meter test unit was excavated at CA-SBR-5241; however, no evidence of any prehistoric artifacts was discovered. BFSA did not observe any prehistoric artifacts at CA-SBR-5241 during the pedestrian field survey conducted in 2019. (BFSA, 2019a, p. 5.0-32 and 5.0-34)

❑ Excess Fill Dirt Site No. 4

A portion of prehistoric site CA-SBR-2845 was recorded on Excess Fill Dirt Site No. 4 in 1978. Site CA-SBR-2845 was originally recorded as a light surface scatter of lithics, which included a mano, metate fragments, and some debitage spread across an 85-meter area that had been disturbed by agricultural activities. The site was updated in 1980 when one metate fragment was observed but no lithics. Site CA-SBR-2845 was re-surveyed and tested in 1985 which yielded minimal amounts of prehistoric artifacts. The archaeologists conducting the testing determined that little or no subsurface cultural resources were present at the site and the site warranted no further study. BFSA did not observe any prehistoric artifacts at CA-SBR-2845 during the pedestrian field survey conducted in 2019. (BFSA, 2019a, p. 5.0-82)

4.13.2 Applicable Regulatory Requirements

The following is a brief description of the State environmental laws and related regulations governing the protection of tribal cultural resources.

A. State Plans, Policies, and Regulations

1. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 *et seq.*). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation

and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

2. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2017)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2017)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

Section 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017)

4.13.3 Basis for Determining Significance

The Project would result in a significant impact to tribal cultural resources if the Project or any Project-related component would:

a. *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

   i. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or*

   ii. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to tribal cultural resources that could result from development projects.

4.13.4 Impact Analysis

Threshold a:	***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) that is:*** ***i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? or*** ***ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

No prehistoric resource sites, features, places, or landscapes were identified within the Project Site or within any of the excess fill dirt sites that are either listed or eligible for listing in the California Register of Historic Places or a local register of historic resources, according to research conducted by BFSA (BFSA, 2019a, pp. 5.0-1 to 5.0-4). Recorded prehistoric archaeology resource sites are located on Excess Fill Dirt Site Nos. 1 and 4; however, as addressed in detail in Subsection 4.4, *Cultural Resources*, neither of these sites could be re-located during 2019 field surveys (and it is presumed that either past testing at the sites collected all artifacts

that were present or that historic agricultural and dairy land uses on the subject properties resulted in the destruction of the sites). Furthermore, no substantial evidence was presented to or found by the City of Chino that led to the identification of any resources within the Project Site or the excess fill dirt sites that in the City's discretion was considered to be a tribal cultural resource.

As part of the SB 18/AB 52 consultation process required by State law, the City of Chino sent notification of the Project to Native American tribes with possible traditional or cultural affiliation to the Project area. In response, the City was notified by one Native American tribe that the Project Site and each of the excess fill dirt sites were located within their traditional use area and that tribal cultural resources had the potential to be found during Project construction. Accordingly, although considered unlikely due to the pervasive disturbances that have occurred on the Project Site and the excess fill dirt sites from historic agriculture and commercial dairy land uses, implementation of the Project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 should such a resource be found – and not protected – during construction. Mitigation is required.

4.13.5 Cumulative Impact Analysis

The Project Site and excess fill dirt sites are located within a Native American traditional use area that stretches across southwestern San Bernardino County, as well as parts of Riverside, Orange, and Los Angeles counties. Other development projects within this traditional use area would have a similar potential as the Project to adversely affect tribal cultural resources. Thus, implementation of the Project has the potential to result in a cumulatively considerable impact to tribal cultural resources for which mitigation is required.

4.13.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project Site and excess fill dirt sites do not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential, however unlikely, to unearth and adversely impact tribal cultural resources that may be buried or masked at the Project Site and/or at the excess fill dirt sites.

4.13.7 Mitigation

The following mitigation measure (MM) would reduce potential impacts to tribal cultural resources that may be discovered during ground-disturbing construction activities.

MM 4.13-1 Prior the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Chino that the Native American Tribe that requested consultation with the City during the SB 18 and AB 52 processes (hereafter referred to as "Native American Tribal Representative") received a minimum of 14 days' advance notice of all mass grading and trenching activities. The Native American Tribal Representative also shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. In the event that suspected tribal cultural resources are unearthed, the Native American Tribal Representative shall have the authority to

temporarily redirect earth moving activities in the affected area and Mitigation Measures 4.4-4 and 4.4-5 shall apply.

4.13.8 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant with Mitigation Incorporated. Implementation of MM 4.13-1 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources that may be encountered during ground-disturbing activities associated with Project development. With implementation of the required mitigation, the Project's potential impact to significant tribal cultural resources would be reduced to less-than-significant.

4.14 Utilities and Service Systems

This Subsection addresses the topics of water service and supply, wastewater collection and treatment, stormwater drainage facilities, dry utilities, and solid waste collection and disposal. Because no utilities or service systems are proposed on the excess fill dirt sites, a majority of the discussion in this Subsection is focused on the Project Site. The information contained herein is based, in part, on information contained in the Project's water supply assessment report prepared by Charles Marr Consulting (CMC) for the City of Chino Public Works Department (CMC, 2019). The water supply assessment is provided as *Technical Appendix N* to this EIR. Other information sources used in this analysis include, but are not limited to, the *City of Chino 2015 Urban Water Management Plan (UWMP)* (Chino, 2018), utility information shown on the Project's application materials on file with the City of Chino, and readily available information from the California Department of Resources Recycling and Recovery (CalRecycle) website. A complete list of references can be found in EIR Section 7.0, *References*.

4.14.1 Existing Conditions

A. Water Service

The Project Site is located within the City of Chino's water service area. The City of Chino is a member agency of the Inland Empire Utilities Agency (IEUA), a wholesale water distributor. The City of Chino's service area is approximately 29.5 square miles; in 2015, the City provided a combined 13,433 acre-feet (AF) of water to 20,249 municipal connections. (Chino, 2018, pp. x, 3)

The City obtains water from the following primary water sources: (1) groundwater from the Chino Groundwater Basin managed by the Chino Basin Watermaster; (2) imported State Water Project (SWP) water from the MWD through the Inland Empire Utilities Agency (IEUA); (3) desalted groundwater from the Chino Basin Desalter Authority (CDA); and (4) recycled water supplied by IEUA. The City owns six reservoirs with a combined storage capacity of 19.75 million gallons, 16 groundwater wells with future plans for rehabilitation of existing wells and several new wells for enhanced production, one imported water connection to the Water Facilities Authority (WFA) Agua de Lejos Water Treatment Plant, an ion-exchange treatment plant, two booster pump stations, two CDA water connections, emergency connections with adjacent water purveyors, potable water pipelines, and recycled water pipelines. (CMC, 2019, p. 4-1)

The Project Site is not connected to the City's municipal water system under existing conditions. The former uses on the Project Site received water via on-site groundwater wells, using agricultural water rights that are associated with the property (CMC, 2019, p. 3-3).

B. Wastewater Service

Wastewater in the Project area is conveyed via City of Chino maintained sewer lines to an IEUA sewer line installed beneath Mountain Avenue which ultimately connects to the Recycling Plant No. 5 (RP-5) wastewater treatment facility (operated by the IEUA). The RP-5 facility is located immediately northwest of the Project Site and west of Mountain Avenue. Under existing conditions, the RP-5 facility has a treatment capacity of approximately 16.3 million gallons of wastewater per day but only treats approximately 9 million gallons of

wastewater per day (IEUA, 2020). Under existing conditions, the Project Site is vacant and undeveloped and does not generate any wastewater requiring treatment.

C. Stormwater Conveyance Facilities

In the existing condition, several berms are constructed across the Project Site and within the northeast corner of the Site, some of the berms are fitted with concrete spillways. Most of the berms have heights ranging from three to six feet, and consist of relatively loose undocumented fill. The northeast corner of the Site contains several water detention basins that are approximately three to five feet deep; most of these basins have concrete-lined spillways. Within the same area, there is a pond that is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep containing vegetation and trash; this pond retains water during several months of the year. Two relatively smaller retention ponds approximately 10 to 12 feet deep are located on the Site adjacent to Mountain Avenue. Stormwater flows from the western portions of the Project Site travel as surface sheet flow generally from the north to the southeast corner of the Project site. The stormwater flows from the northeast portion of the site flow southeast to the Cypress Channel that is located east of the Project Site boundary and flow south to an existing storm drain located southeast of the Project Site. (PBLA, 2019a). Refer to EIR Subsection 4.9, *Hydrology and Water Quality*, for a detailed discussion of existing drainage patterns of the Project Site and the excess fill dirt sites.

D. Dry Utilities

The Project Site and excess fill dirt sites are primarily vacant, except for a residential property on Excess Fill Dirt Site No. 1 that is slated for removal. Above ground electric utility lines supported on poles are located along the Project Site frontage adjacent to Mountain Avenue. Overhead power transmission lines spanning between tall metal support structures cross Excess Fill Dirt Site No. 1 and No. 2 in an east/west direction. Power lines and associated support structures also cross Excess Fill Dirt Site No. 3 about 100 feet north of West County Road. On Excess Fill Dirt Site No. 5, overhead powerlines trend north-south, west of Hellman Ave and roughly 60 feet into the property. No other existing dry utilities are known to exist on the Project site or excess fill dirt sites.

E. Solid Waste Collection and Disposal

Solid waste collection and disposal services are provided to the Project Site and surrounding areas in the City of Chino by the City of Chino through private contract with Waste Management, Inc. Solid waste collected in the City of Chino is disposed at the El Sobrante Landfill. Under existing conditions, no solid waste is produced by the Project Site or the excess fill dirt sites, as the properties are vacant and undeveloped.

The El Sobrante Landfill is located east of I-15 and Temescal Canyon Road and to the south of the City of Corona at 10919 Dawson Canyon Road. In November 2019, the El Sobrante Landfill received approximately 265,579 tons of solid waste (which correlates to approximately 10,624 tons per day). The El Sobrante Landfill is permitted to receive 16,054 tons of solid waste per day and is estimated to reach capacity, at the earliest time, in the year 2051. Future landfill expansion opportunities exist at this site. (CalRecycle, 2019b; DWR, 2019)

4.14.2 Applicable Environmental Plans, Policies, and Regulations

The following is a brief description of the federal, State, and local environmental laws, regulations, and plans related to utilities and service systems.

A. Federal Plans, Policies, and Regulations

1. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes federal Environmental Protection Agency (EPA) to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that the EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. (EPA, 2019e)

B. State Plans, Policies, and Regulations

❑ Applicable Water Supply Regulations

1. Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. (CA Legislative Info, n.d.) The City of Chino's water efficient landscape ordinance is contained in Chapter 20.19 of the Chino Municipal Code.

2. Water Recycling in Landscaping Act

In 2000, Senate Bill 2095 (Water Recycling in Landscaping Act) was approved by Governor Davis requiring any local public or private entity that produces recycled water and determines that within 10 years it will provide recycled water within the boundaries of a local agency, to notify the local agency of that fact. In turn, local agencies are required to adopt and enforce within 180 days a specified recycled water ordinance, unless the local agency adopted a recycled water ordinance or other regulation requiring the use of recycled water in its jurisdiction prior to January 1, 2001. (DWR, 2004; CA Legislative Info, n.d.)

3. Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, pp. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning.

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, pp. 1-2)

4. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board

and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project Site and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.

5. Senate Bill 610

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003) For the purposes of SB 610, and as applicable to the Project evaluated in this EIR, a water supply assessment is required for the Project because it is 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."

Because the Project proposes 2,082,750 s.f. of light industrial uses on 97.0 acres, a water supply assessment was required and is included in *Technical Appendix N*.

6. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any

substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the applicable RWQCB, water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

7. Executive Order B-29-15

Executive Order (EO) B-29-15 ordered the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25-percent reduction in potable urban water usage through February 28, 2016; directed the California Department of Water Resources (DWR) to lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes; and directed the California Energy Commission to implement a statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices. (SWRCB, 2018)

8. Executive Order B-37-16

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (DWR, 2017)

9. Executive Order B-40-17

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (DWR, 2017)

10. Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a

groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016. (DWR, n.d.)

❑ Applicable Solid Waste Regulations

11. California Solid Waste Integrated Waste Management Act (AB 939, 1989)

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 2018a) The IWMA also required:

- The establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 2018a)
- Each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 2018a)
- Each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.
- Each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 2018a)
- Each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 2018a)
- The CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 2018a)
- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 2018a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 2018a)

12. Waste Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

13. Mandatory Commercial Recycling Program (AB 341)

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2019a)

14. 2016 California Green Building Standards Code (CALGreen, Part 11 of Title 24, California Code of Regulations)

California Code of Regulations, Title 24, Part 11 is referred to as the California Green Building Standards Code (CALGreen Code). The most recent version of CALGreen became effective January 1, 2020, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including industrial buildings such as those proposed as part of the Project evaluated herein). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." (CEC, 2018)

❑ Applicable Water Quality Regulations

15. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the

Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016)

16. Water Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

C. Local Plans, Policies, and Regulations

1. City of Chino Urban Water Management Plan

The City of Chino *2015 UWMP*¸ which acts as the urban water management plan (UWMP) for the City, is herein incorporated by reference and is available for public review at the City of Chino Public Works Department located at 13220 Central Avenue, Chino, CA 91710. The Project's Water Supply Assessment (WSA, *Technical Appendix N*) is based, in part, on the City of Chino *2015 UWMP*. The *UWMP* includes a water system analysis, identifies improvements to correct existing deficiencies and serve projected future growth, and presents the estimated costs and phasing of the recommended improvements. As concluded in the *UWMP*, the City anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2040 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years (Chino, 2018, Tables 7-2 through 7-4).

A Water Shortage Contingency Plan is included in the *UWMP*, which would be implemented by the City in cases of future water deficiencies caused by limitations on supply or the City's delivery system. At the time of long- or short-term drought conditions, or other emergencies, the City would follow regional guidance from the Metropolitan Water District of Southern California (MWD), local guidance from the Inland Empire Utilities Agency (IEUA), and implement its own contingency plan, including considerations for mandatory prohibition, penalties, and consumption reduction methods. Compliance with mandatory water use reductions would ensure that the City has the ability to meet present and projected demand within its service area during dry years. (Chino, 2018, pp. 60-69)

4.14.3 Basis for Determining Significance

The proposed Project would result in a significant impact associated with utilities and service systems if the Project or any Project-related component would:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects;

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

c. 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;

d. Generate solid waste in excess of /State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

e. Comply with federal, State, and local management and reduction statues and regulations related to solid waste.

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects that a development project could have on public utilities and service systems.

4.14.4 IMPACT ANALYSIS

Threshold a:	***Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?***

No existing water or wastewater lines would be relocated or upsized as part of the proposed Project. The Project would include the installation of water and wastewater lines on the Project Site, connecting to existing City of Chino (water delivery) and existing and planned IEUA (wastewater conveyance) facilities in fronting roadways. Installation of water and wastewater lines on the Project Site is considered an inherent component of the Project's construction process, and no significant impacts have been identified throughout this EIR specifically related to installation of the water and sewer lines.

The Project also would entail the installation of storm drain lines and a detention/water quality basin on the Project site. Installation of storm water and water quality infrastructure on the Project Site is considered an inherent component of the Project's construction process, and no significant impacts have been identified throughout this EIR specifically related to installation of the onsite drainage system. No off-site storm drain improvements would be required on or adjacent to the excess fill dirt sites; but, the Project would construct an off-site storm drain line that would extend from the southwestern corner of the Project site, across APNs 105-634-101, -04, and 105-617-104, to the Cypress Channel, and outlet above the ordinary high water mark (OHWM) at an existing concrete wing wall. To construct the storm drain outlet, the Project Applicant proposes to access the Cypress Channel primarily from the west side (back side) of the concrete wing wall on the west side of the Channel. A tarp is proposed to be installed above the OHWM on the east face of this concrete wing wall to prevent construction debris from entering into the Cypress Channel during the construction process. Access into the Channel during the construction process would be limited to persons on foot using hand tools; no large pieces of construction equipment would be placed in the Channel. Potential impacts to biological resources and water quality associated with the off-site storm drain infrastructure installation and operation are discussed in EIR Subsection 4.3, *Biological Resources*, and Subsection 4.6, *Hydrology and Water Quality*.

Under both topics of biological resources and water quality, impacts were concluded to be less than significant in relation to the proposed installation of the off-site stormwater line and outlet.

The Project Applicant does not anticipate the need to provide natural gas service to the Project Site. The Project would involve utility connections to provide electric power and telecommunications services to the Site. In addition, existing above ground power lines located along the Project Site's frontage with Mountain Avenue would be undergrounded as part of Project construction. Existing above ground power lines and support structures on the excess fill dirt sites would be left in place. Installation of dry utilities on the Project Site is considered an inherent component of the Project's construction process, and no significant impacts have been identified throughout this EIR specifically related to their installation.

In summary, the installation of the utility and service system infrastructure improvements proposed by the Project Applicant would result in physical environmental impacts inherent in the Project's construction process; however, these impacts have already been included in the analyses of construction-related effects presented throughout this EIR. In instances where the Project's construction phase would result in specific, significant impacts, feasible mitigation measures are provided. The construction of infrastructure necessary to serve the proposed Project would not result in any significant physical effects on the environment that are not already identified and disclosed elsewhere in this this EIR. Accordingly, impacts would be less than significant and additional mitigation measures beyond those identified throughout other subsections of this EIR would not be required.

Threshold b: ***Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

A water supply assessment (WSA) was prepared to assess the Project's effect on the City's ability to provide adequate water service to customers within the City's service area during normal, dry, and multiple dry years. The WSA, which is provided as *Technical Appendix N* to this EIR, was prepared in accordance with SB 610. The Project is calculated to demand 139,236 gallons of water per day (156 AF per year), including 107,496 gallons per day for indoor use and 31,740 gallons per day for outdoor use (i.e., landscape irrigation), as summarized in Table 4.14-1, *Project Water Demand Estimate* (CMC, 2019, p.3-3).

Because the Project Site does not receive municipal water service from the City of Chino under existing conditions, the Project's water demand represents a "new" demand placed on the City's water utility. However, in conjunction with development of the Project, the City would receive groundwater production credits of up to 2.0 AF per year for each acre of the Project Site that is being converted from agricultural to urban land use (CMC, 2019, p. 3-3). The Project would convert approximately 97 acres from agriculture to non-agriculture use, which would result in new groundwater production credits totaling up to 194 AF per year being granted to the City, which would offset the Project's water demand and further contribute to the City's expected surplus of water supply (as identified in the *2015 UWMP*) (CMC, 2019, pp. 4-4, 5-10, and 5-11).

Furthermore, and as documented in the Project's WSA (*Technical Appendix N*), the City of Chino is projected to meet its future water demands, including the demands for the Project, from existing supply sources as well as sources that are currently being planned, developed, and implemented. Future sources include an expanded service area for recycled water and water conservation. Supplies of imported water and Chino Basin Desalter

Authority (CDA) water are expected to remain relatively stable throughout the forecast period. Continued water use reduction and stabilized local well production are anticipated to provide for the balance of needed supplies. (CMC, 2019, p. 6-1)

Table 4.14-1 Project Water Demand Estimate

Land Use	Bldg SF	Project Site Acreage [1]			Indoor Water Demand Factor [2]	Outdoor Water Demand Factor [2]	Indoor Water Demand	Outdoor Water Demand
		total	Bldg, Parking, other	Irrig.				
Building 1 Distribution (IND-L)	1,168,710	51.0	48.7	2.3	1,250 gpd/ac	2,900 gpd/ac	60,892 gpd	6,720 gpd
Building 2 Distribution (IND-L)	914,040	45.9	37.3	8.6	1,250 gpd/ac	2,900 gpd/ac	46,604 gpd	25,020 gpd
Total	2,082,750	96.9		-	-	-	107,496 gpd [3]	31,740 gpd [4]

1. Based on the Project's site plan as described in EIR Subsection 3.0. Water demand is estimated using General Light Industrial/Warehouse land use classification.
2. Based on usage factors in the City's 2004 Master Plan Update.
3. Represents additional demand on City's potable (domestic) water sources.
4. Represents additional demand on City's recycled (non-domestic) water sources.

(CMC, 2019, Table 3.2-1)

Analysis of water demand and supply projections for the City, including the Project, demonstrates that estimates of projected supplies are sufficient to satisfy City demand through Year 2040 under the current Chino Groundwater Basin Safe Yield of 140,000 AFY. The capacity of the Chino Groundwater Basin, managed in accordance with the Watermaster-guided optimization programs, may be used to buffer episodes of drought and help address impacts that may result from a reduction of the Basin Safe Yield. The projections assume recycled water availability equals demand and is the greater of current recorded recycled water use (Year 2015) and recycled water available during dry years, as outlined in the *2015 UWMP*. The analysis relies on groundwater supplies to match the projected needs during multiple dry years. Recycled water is proposed to be used to supply new development and certain existing uses, such as landscape irrigation and industrial uses currently supplied with potable water. (CMC, 2019, pp. 6-1 and 6-2)

Analysis of water supply projections for the City, including the Project, demonstrates that estimates of anticipated projected supply entitlements are sufficient to satisfy City demand through the Year 2040 during normal and dry years. In the possible event the Basin yield is reduced, the City has the opportunity to pursue measures to increase supplies of potable water by utilizing a combination of measures, as follows: (CMC, 2019, p. 6-2)

- Production of groundwater based on Safe Yield limitations and replenishment;
- Increasing imported water purchases, if available and if there is available WFA capacity;
- Purchasing additional desalted water if more is produced than needed to satisfy requirements of other purchasers; and
- Purchasing additional recycled water, if available.

Collectively, these additional options will enable water supply to satisfy water demand for the City of Chino now and into the future, including with implementation of the proposed Project (CMC, 2019, p. 6-2).

Based on the information contained within the City's *2015 UWMP* pertaining to the City's future water supplies and demands and calculations performed by CMC, and because the Project would off-set its water demand by converting the site from agriculture to non-agriculture use, thereby allowing the City to claim up to 194 AF per year in new groundwater production credits, the Project's WSA concludes that the City has adequate existing water entitlements and resources to serve the Project under normal, single-dry year, and multiple-dry year scenarios. (CMC, 2019, p. 6-2) Accordingly, the Project would have no potential to result in the need for new or expanded water entitlements or treatment capacity and impacts would be less than significant.

Threshold c:	***Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

The Project is estimated to generate approximately 20,731 gallons of wastewater per day (using the City's wastewater generation rate of 1,000 gallons per day per acre for light industrial land uses). Wastewater flows generated by the Project would be conveyed via the City's sewer line network to the RP-5 IEUA treatment facility. As of 2019, RP-5 has an excess treatment capacity of approximately 9 million gallons of wastewater per day (IEUA, 2020). Implementation of the proposed Project would utilize approximately 0.23% of the available excess treatment capacity at RP-5. Accordingly, RP-5 has sufficient capacity to treat wastewater generated by the Project in addition to existing commitments. The Project would not create the need for any new or expanded off-site wastewater facility (such as conveyance lines, treatment facilities, or lift stations). A new lift station is planned by the IEUA near the southwest corner of Mountain Avenue and Bickmore Avenue that would service the Project, but the lift station is an IEUA project that is not a part of the proposed Project evaluated in this EIR. Because there is adequate capacity at existing treatment facilities at RP-5 to serve the Project's projected wastewater treatment demand, impacts would be less than significant and mitigation is not required.

Threshold d:	***Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Construction and operation of the proposed Project would result in the generation of solid waste requiring disposal at a landfill. Solid waste collected in the City of Chino is disposed at the El Sobrante Landfill.

A. Construction Impact Analysis

During construction of the proposed Project, solid waste requiring landfill disposal would be required in the form of demolition debris, remnants of unused construction materials, and discarded materials and packaging. Based on a proposed building area of 2,082,750 s.f. and a construction waste generation factor of 4.34 pounds per square foot (EPA, 2009), approximately 4,520 tons of waste is expected to be generated over the course of the Project's construction phase ([2,082,750 sq. ft. × 4.34 lbs/sq. ft] ÷ 2,000 lbs/ton = 4,520 tons), or

approximately 20.5 tons per day (based on an estimated 220 days for building construction). CALGreen (Title 24, Part 11) requires that a minimum of 65% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies) consistent with the State's solid waste reduction goals; therefore, the Project is estimated to generate a total of approximately 1,582 tons of construction waste during the construction phase, or approximately 7.2 tons per day.

Non-recyclable demolition debris and construction waste generated by the Project would be disposed the El Sobrante Landfill. The Project's short-term generation of this volume of construction waste is not in excess of State or local disposal standards, or in excess of the local infrastructure capacity to handle the waste disposal. As described in Subsection 4.14.1D, the El Sobrante Landfill receives well below its maximum permitted daily disposal volume of 16,054 tons per day (CalRecycle, 2020). The estimated 7.2 tons per day of waste that would be generated during Project construction would represent only 0.04% of the maximum permitted daily disposal volume at the El Sobrante Landfill; thus, demolition and construction waste generated by the Project is not anticipated to cause the landfill to exceed its maximum permitted daily disposal volume. Furthermore, the El Sobrante Landfill is not expected to reach its total maximum permitted disposal capacity during the Project's construction period. The El Sobrante Landfill would have sufficient daily capacity to accept solid waste generated by the Project's construction phase; therefore, impacts to landfill capacity associated with the Project's near-term construction activities would be less than significant.

B. Operational Impact Analysis

Based on a daily waste generation factor of 1.42 pounds of waste per 100 square feet of industrial/warehouse building area obtained from CalRecycle (CalRecycle, 2019c), long-term operation of the Project would generate approximately 14.8 tons of solid waste per day ([2,082,750 sq. ft. × 1.42 lbs/100 sq. ft] ÷ 2,000 lbs/ton = 14.8 tons). A minimum of 50% of all solid waste would be required to be recycled pursuant to AB 939, consistent with the State's solid waste reduction goals; therefore, the Project would generate approximately 7.4 tons per day of solid waste requiring disposal at a landfill. The estimated 7.4 tons per day of solid waste that would be generated by Project operations would represent only 0.05% of the landfill's maximum permitted daily capacity of 16,054 tons per day.

Non-recyclable waste generated by the Project would be disposed the El Sobrante Landfill. The Project's long-term generation of this volume of solid waste is not in excess of State or local disposal standards, or in excess of the local infrastructure capacity to handle the waste disposal. As described in Subsection 4.14.1D, the El Sobrante Landfill receives well below its maximum permitted daily disposal volume; thus, waste generated by the Project's operation is not anticipated to cause the landfill to exceed its maximum permitted daily disposal volume. Because the Project would generate a relatively small amount of solid waste per day as compared to the permitted daily capacity at the El Sobrante Landfill, impacts to regional landfill facilities during the Project's long-term operational activities would be less than significant.

Threshold e: Would the Project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

The California Integrated Waste Management Act (Assembly Bill (AB) 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting,

and land disposal of waste. In addition, the bill established a 50% waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, the San Bernardino County Board of Supervisors adopted the County of San Bernardino Countywide Integrated Waste Management Plan (County of San Bernardino, 2018), which outlines the goals, policies, and programs the County and its cities implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

In order to assist the City of Chino and the County of San Bernardino in achieving the mandated goals of the Integrated Waste Management Act, and pursuant to City of Chino Municipal Code § 20.10.060, separate bins would be provided on-site to allow tenants to separate recyclable materials from refuse. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the Project is required to provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these mandatory requirements would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project Applicant would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

4.14.5 Cumulative Impact Analysis

The Project would require the installation of water, sewer, stormwater, electric power, and telecommunications facilities as needed to provide utility service to the Project site. Cumulative effects associated with the Project's proposed water, sewer, stormwater drainage, and utility connections have been evaluated throughout this EIR, and where necessary mitigation measures have been identified to reduce impacts by the maximum feasible extent. There are no components of the Project's water, sewer, stormwater drainage, or utility connections that would result in cumulatively-considerable impacts not already evaluated by this EIR. Accordingly, Project impacts due to new or expanded water, wastewater treatment, stormwater drainage, and utility connections would be less-than-cumulatively considerable.

The analysis in the Project's WSA (*Technical Appendix N*), which is based on the City's *2015 UWMP*, demonstrates that with implementation of the Project and other cumulative developments, the City of Chino would have adequate water supplies during normal, dry, and multiple dry years. Furthermore, the Project would off-set its water demand by converting the site from agriculture to non-agriculture use, thereby allowing the City to claim up to 194 AF per year of new groundwater production credits. Therefore, cumulatively-considerable impacts due to water supply would be less than significant.

With respect to wastewater treatment, Project wastewater would be conveyed to the RP-5 IEUA treatment facility, and would amount to only 1.1% of the available excess treatment capacity at RP-5. As such, RP-5 would have adequate capacity to treat wastewater generated by the Project and other cumulative developments; thus, cumulatively-considerable impacts due to wastewater treatment capacity would be less than significant.

There are no components of the Project that would result in the generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or that would otherwise impair the attainment of solid waste reduction goals. Cumulatively-considerable impacts would not occur.

4.14.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project's construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, and telecommunications facilities, would not cause significant environmental effects not already identified and mitigated to the maximum feasible extent throughout this EIR.

Threshold b: Less-than-Significant Impact. The City of Chino is expected to have sufficient water supplies to service the Project. The Project would not exceed the City's available supply of water during normal years, single-dry years, or multiple-dry years.

Threshold c: Less-than-Significant Impact. The IEUA would provide wastewater treatment services to the Project Site via RP-5. This facility has adequate capacity to service the Project and other cumulative developments and no new or expanded facilities would be needed.

Threshold d: Less-than-Significant Impact. There is adequate capacity available at the El Sobrante Landfill to accept the Project's solid waste during both construction and long-term operation. The proposed Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.

Threshold e: Less-then-Significant Impact. The Project would comply with federal, State, and local management and reduction statues and regulations related to solid waste.

4.14.7 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines § 15126(b)). As described in detail in Section 4.0, *Environmental Analysis*, of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (VOC and NO_X) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's *2016 AQMP*. As such, the Project would conflict with and could obstruct implementation of the *AQMP*. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis.
- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_X emissions during the limited duration of its construction and VOCs and NO_X emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds. Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. Therefore, Project construction-related impacts due to emissions of NO_X and operational-related impacts due to emissions of VOCs and NO_X would be significant and unavoidable on a direct and cumulatively-considerable basis
- Noise: The Project's off-site vehicular noise levels from daytime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 3 through 5. Additionally, the Project's off-site traffic noise levels from nighttime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 2 through 5. Accordingly, construction of the Project would result in a significant and temporary unavoidable noise impact due to daytime and nighttime traffic noise levels during the limited duration of soil import/export activities
- Transportation: Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections during E+P (Building 1), E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040) traffic conditions. These deficiencies conflict with General Plan objectives and policies that include LOS standards as the measure of circulation system performance. Although adequate mitigation to address the Project's effect on circulation system performance is identified in the form of fair share fee payments, the City of Chino cannot assure that the required improvements would be in place at the time of need because some of the improvement locations are either: 1) located in another

city or are under the control of Caltrans and fall outside of the City of Chino's jurisdiction; and/or 2) not included in an existing mitigation funding program to ensure a date-certain installation. Thus, the Project's cumulatively-considerable conflicts with General Plan objectives and policies at Study Area intersections and due to traffic signal warrants would be significant and unavoidable.

5.2 Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project Site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), which would minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of Project energy consumption was previously provided in EIR Subsection 4.5, *Energy*.

Implementation of the Project would commit the Project Site to an industrial use as a two-building industrial complex. The land use proposed by the Project is compatible with the industrial and commercial land uses that surround the Project Site and also compatible with the use of Bickmore Avenue and Mountain Avenue as City-designated truck routes, which abut the Project Site on the north and to the west. Although the Project would result substantial adverse and unavoidable transportation impacts due to the Project's contribution to intersection delay, intersection performance and delay is not considered to be an environmental effect under CEQA. The transportation impacts are only considered to be significant because they conflict with General Plan policies that use level of service (LOS) as a measure of transportation system performance. The Project's substantial adverse and unavoidable air quality impacts (due to VOC and NO_X emissions) are considered significant due to their regional effect; localized air quality impacts would be less than significant. Accordingly, the Project and its environmental effects would not compel or commit surrounding properties to land uses other than those that are existing today or those that are planned by the City of Chino General Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, off-site properties.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the potential for hazardous materials to be transported to/from the Project Site and Excess Fill Dirt Site Nos. 1 through 5 and/or used on

the Project Site and Excess Fill Dirt Site Nos. 1 through 5 during construction and operation. As concluded in Subsection 4.8, mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous materials used on the Project Site or any of the excess fill dirt sites would be safely and appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from any of the sites.

As previously discussed in detail under EIR Subsection 4.5, *Energy*, the Project would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

5.3 Growth-Inducing Impacts of the Proposed Project

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines § 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG's *2016 RTP/SCS*, the City of Chino's population is projected to increase 1.5% annually, between 2012 and 2040. Over this same time period, employment in the City is expected to increase 0.62% annually. (Urban Crossroads, 2019f, p. 88) The Project's employees (short-term construction and long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment based on the amount of existing and planned future commercial and retail services available in areas near the Project Site. In addition, the Project would create jobs, a majority of which likely would be filled by residents of the housing units either already built or planned for development within the City of Chino and nearby incorporated areas. Accordingly, because it is anticipated that most of the Project's future employees would already be living in the Inland Empire area, the Project's introduction of employment opportunities on the Project Site would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the

levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The area surrounding the Project Site is in the process of transitioning from agricultural to non-agricultural uses as planned by the City of Chino General Plan, with industrial development to the north and east of the Project Site, and commercial development to the south and west of the Project Site. Development of the Project Site may place short-term development pressure on the undeveloped parcel to the southeast of the Project Site; however, because this area is ultimately planned for industrial development by the City of Chino General Plan, the growth that could occur in the Project area has been planned for to ensure that adequate infrastructure and public services are available. Further, the Project will not require the construction of extensive new oversized public facilities which, if such public facilities were constructed, could induce growth.

Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts.

5.4 Effects Found not to be Significant as Part of the Initial Study Process

CEQA Guidelines § 15128 requires that an EIR:

> *"…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."*

The Project's Initial Study, which is included as *Technical Appendix A* to this EIR, determined that implementation of the Project had no potential to result in significant impacts to the areas of aesthetics, mineral resources, population/housing, public services, recreation, and wildfire. Therefore, these issue areas are not required to be analyzed in detail in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of the Project's impacts to aesthetics, mineral resources, population/housing, public services, recreation, and wildfire is presented below.

A. Aesthetics

The Project Site is located in the City of Chino, which lies on relatively flat and gently sloping topography. No designated scenic vistas or scenic corridors are located in the vicinity of the Project Site. Distant views of the Chino Hills to the west and south are available from public viewing areas in the Project Site vicinity; however, these views are not prominent from the Project area and are available in numerous locales in the City. The Project entails the conversion of vacant land (formerly used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds) to industrial land uses. Structures proposed on the Project Site would be less than 60 feet tall (but could be taller as permissible by the City's zoning code and subject to future review by the City's Development Services Department). Other features (including but not limited to) ancillary structures, walls, fencing, landscaping, and parking areas would be lower in profile. The Chino Hills would remain visible above the Project due to

the distance from the Project Site and the height and elevation of the mountain features. Accordingly, given the fact that the Project Site is not a scenic vista, is not located near a designated scenic resource, and unique, prominent and scenic views would not be obscured by the Project, the Project would not have a substantial adverse effect on a scenic vista and less-than-significant impacts would occur.

The Project Site is not located within or adjacent to a scenic highway corridor and does not contain scenic resources, such as trees of scenic value, rock outcroppings, or historic buildings. There are no State-designated or eligible scenic highways within the vicinity of the Project Site; however, the Project Site is located approximately 1.0-mile east of a segment State Route 71 that is eligible for listing as a State scenic highway (Caltrans, 2017). Due to distance and intervening topography and development, the Project would not be prominently visible from the respective segment of State Route 71. Accordingly, the Project Site is not located within a State scenic highway corridor and implementation of the proposed Project would not have a substantial effect on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within or visible from a State scenic highway corridor. No impact would occur.

Implementation of the proposed Project would convert the Project Site from vacant land (formerly used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds) to an industrial development with two large industrial buildings as well as ancillary improvements such as parking lots, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. The Project would be compatible with the size, scale, height, and aesthetic qualities of other large industrial buildings constructed in the immediate vicinity of the Project Site and, also, would be required to comply with the Chino Development Code that mandates the compliance with standards that regulate the visual quality of development. Because the Project Site is located in an urbanized area and because the Project would not conflict with applicable regulations governing scenic quality, a less-than-significant impact would occur.

The City of Chino Municipal Code includes design standards for outdoor lighting that apply to all development in the City. The Municipal Code lighting standards govern the placement and design of outdoor lighting fixtures to ensure adequate lighting for public safety while also minimizing light pollution and glare and precluding public nuisances (e.g., blinking/flashing lights, unusually high intensity or bright lighting). As a standard condition of approval, the Project would be required to comply with the Chino Municipal Code, including provisions applicable to outdoor lighting. Mandatory compliance with the City of Chino Municipal Code would ensure that the Project does not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

B. Mineral Resources

The Project Site is not located within an area known to be underlain by regionally- or locally-important mineral resources or within an area that has the potential to be underlain by regionally- or locally-important mineral resources (Chino, 2010b, p. 4.6-4 and Figure 4.6-4). Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California.

C. Population/Housing

The Project would have a beneficial effect on the City's employment base by developing a site that is currently vacant. Given that the current unemployment rate for the Riverside-San Bernardino-Ontario area is approximately 3.5% (as of December 2019), it is reasonably assured that the jobs created by the Project would be filled by people living within Chino Hills, Eastvale, Jurupa Valley, or other nearby communities (EDD, 2020). There are no components of the Project that would reasonably result in indirect or unplanned population growth because the surrounding area is mostly developed under existing conditions or is planned for development and is in the process of developing pursuant to an approved land plan (i.e., The Preserve Specific Plan). The Project would install new/expanded infrastructure; however, this infrastructure would either be master-planned facilities (meaning the facilities would be installed with or without the Project) or would be private facilities for the sole use of the Project (meaning they would not be available for general public use). Accordingly, implementation of the Project would not induce direct or indirect substantial growth in the area. Impacts would be less than significant.

Under existing conditions, the Project Site and excess fill dirt sites are vacant and undeveloped and contain no structures. Accordingly, the Project would have no potential to displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. No impact would occur.

D. Public Services

1. Fire Protection Services

The Project would be adequately served by the CVFD Station 63 (at the Chino Airport) which is located approximately 1.2 miles northeast of the Project Site, on Kimball Avenue. No new or expanded unplanned facilities would be required. The Project is required to comply with the provisions of the City's Development Impact Fee Ordinance (Municipal Code Chapter 3.45), which requires a fee payment that the City applies to the funding of fire protection facilities. The Project also would feature a minimum of fire safety and fire suppression activities, including type of building construction, fire sprinklers, and a fire hydrant system. The proposed buildings would be of concrete tilt-up construction that contain a low fire hazard risk rating. In addition, a fire alarm system with ceiling mounted fire sprinklers would be installed. Based on the foregoing, the proposed Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities would be less than significant.

2. Police Protection Services

The Project would introduce two new industrial buildings (and employees and visitors) to the Project Site, which would result in an incremental increase in demand for police protection services, but is not anticipated to require or result in the construction of new or physically altered police facilities. The CPD headquarters, which opened in 2012, were designed to accommodate the CPD's expected facilities needs into the future (considering the increased demand for police protection services as Chino's population increases). In addition, the CPD operates an unstaffed substation in The Preserve area and may construct a permanent, staffed substation in The Preserve area in the future if the need arises. Environmental impacts associated with buildout of The Preserve Specific Plan, including buildout of The Preserve Specific Plan Community Core where the new police substation is anticipated to be constructed (if needed), were fully evaluated in The Preserve Specific Plan EIR (SCH No. 2000121036), and the Project's incremental demand for additional police staffing and

facilities would not result in the need for new or expanded police protection facilities beyond what is already anticipated by the City of Chino. Furthermore, the Project would be subject to payment of DIF fees and tax revenues generated from development of the site also would provide funding to offset potential increases in the demand for police services at Project buildout. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts to police protection facilities would therefore be less than significant.

3. Schools

Development of the Project Site with industrial land uses would not create a direct demand for public school services, as the subject property would contain non-residential uses that would not generate any school-aged children requiring public education. Because the proposed Project would not directly generate students and is not expected to indirectly draw a substantial number of students to the area, the proposed Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Chino Unified School District, in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of a building permit. With mandatory payment of fees in accordance with California Senate Bill 50, impacts to public schools would not occur.

4. Parks

The Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the Project would not adversely affect any park facility and impacts would be less than significant.

5. Other Public Services

The Project is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, public health facilities, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified public facilities and no impact would occur.

E. Recreation

The Project entails development of the Project Site with two industrial buildings. The Project Applicant does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. The Project also does not entail the construction of any new on- or off-site recreation facilities. Accordingly, implementation of the proposed Project would neither result in the increased use or substantial physical deterioration of an existing neighborhood or regional park nor result in environmental effects related to the construction or expansion of recreational facilities.

F. Wildfire

The Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the Project would not exacerbate wildfire hazard risks or expose people or the environment to adverse environmental effects related to wildfires (CalFire 2018). No impact would occur.

6.0 ALTERNATIVES

Pursuant to CEQA Guidelines Section 15126.6(a):

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0 of this EIR, the proposed Project would result in four significant adverse environmental effects that cannot be mitigated to below a level of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (VOC and NO_X) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's *2016 AQMP*. As such, the Project would conflict with and could obstruct implementation of the *AQMP*. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis.

- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_X emissions during the limited duration of its construction, and VOCs and NO_X emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds. Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. Therefore, Project construction-related impacts due to emissions of NO_X and operational-related impacts due to emissions of VOCs and NO_X would be significant and unavoidable on a direct and cumulatively-considerable basis.

- Noise: The Project's off-site vehicular noise levels from daytime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 3 through 5. Additionally, the Project's off-site traffic noise levels from nighttime soil import/export activities, for the limited duration of this activity, would create a substantial temporary increase in ambient noise levels within the vicinity of Excess Fill Dirt Site Nos. 2 through 5. Accordingly, construction of the Project would result in a significant and

temporary unavoidable noise impact due to daytime and nighttime traffic noise levels during the limited duration of soil import/export activities.

- Transportation: Project-related traffic would contribute to LOS deficiencies at numerous Study Area intersections during E+P (Building 1), E+P (Project Buildout), Opening Year (2022), and Horizon Year (2040) traffic conditions. These deficiencies conflict with General Plan objectives and policies that include LOS standards as the measure of circulation system performance. Although adequate mitigation to address the Project's effect on circulation system performance is required in the form of fair share fee payments, the City of Chino cannot assure that the required improvements would be in place at the time of need because some of the improvement locations are either: 1) located in another city or are under the control of Caltrans and fall outside of the City of Chino's jurisdiction; and/or 2) not included in an existing mitigation funding program to ensure a date-certain installation. Thus, the Project's cumulatively-considerable impacts to Study Area intersections and due to traffic signal warrants are considered significant and unavoidable.

6.1 Alternatives Under Consideration

CEQA Guidelines § 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on a project site in the foreseeable future if the proposed project were not approved. For projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on a specific property), the "no project" alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines § 15126(e)(3)(A-B). Because the proposed Project includes both a land use plan amendment (and change of zone) and a site-specific development proposal, this EIR includes two "no project" alternative analyses: (1) The scenario where the Project does not proceed and the Project Site remains in its existing condition is evaluated as the "No Development Alternative," and (2) The potential scenario where the Project Site is used in accordance with the City's existing land use plan (the City of Chino General Plan) is evaluated as the "No Project Alternative."

In compliance with CEQA Guidelines Section 15126.6(a), an EIR must describe "a range of reasonable alternatives to the project, or to 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." The EIR need not consider every conceivable alternative; rather, it must consider a reasonable range of potentially feasible alternatives to the project, or to the location of the project, which would avoid or substantially lessen significant effects of the project, even if "these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA Guidelines Section 15126.6(b)).

The following alternatives are analyzed in this Section.

6.1.1 No Development Alternative

The No Development Alternative considers no development on the Project Site beyond that which occurs under existing conditions. As such, the approximately 97-acre Site would remain vacant and undeveloped for the foreseeable future. Under this alternative, no improvements would be made to the Project Site and there would be no need to export dirt from the fill dirt sites analyzed in Section 4.0 of this EIR. This alternative was

selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

6.1.2 No Project Alternative

The No Project Alternative considers redevelopment of the Project Site in accordance with the site's existing land use designations, "Agriculture (AG)" over a majority of the site (92.25 acres) and "Recreation/Open Space (R/OS)" in the southeast corner of the site (4.75 acres). The Site's zoning designations are consistent, with Agriculture (AG) zoning over a majority of the site and Open Space Natural (OS-2) zoning in the southeast corner of the site. Although the Project Site is currently vacant, the property was formerly used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. This alternative considers the potential environmental impacts that would occur under the scenario where either agricultural field crops were established on the Site, or commercial dairy operations resumed on the Site. Use of the site for agricultural field crops would entail clearing the site, preparing the soil, and rotational planting and harvesting of crops. Resumption of dairy uses on the Project Site would require the construction of dairy structures (e.g., milking barns, feeding pens, corrals), wastewater ponds, and a caretaker residence on the Site. Under this alternative, there would be no need to export dirt from the fill dirt sites analyzed in Section 4.0 of this EIR. This alternative was selected by the Lead Agency to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations contained within the City of Chino General Plan and Municipal Code under the site's existing land use and zoning designations.

6.1.3 Trailer and Cargo Container Storage Alternative

The Trailer and Cargo Container Storage Alternative considers a proposal where the Project Site would be developed with one cross-dock industrial building and a truck trailer parking lot. Under this alternative, Building 1 would be developed identical to what is proposed by the Project (i.e., the building would be located on the northern portion of the Project Site and would include approximately 1,168,710 s.f. of floor area and would be supported by truck courts, automobile parking, and landscaping). The southern portion of the Site comprising approximately 42.9 acres would be developed with a truck trailer and cargo container storage lot in lieu of Building 2 proposed by the Project. The truck trailer and cargo container storage lot provided under this alternative would include room to park between 850 and 1,000 trailers and cargo containers. This alternative was selected by the Lead Agency to evaluate a scenario that would reduce the amount of fill dirt needed to be imported to the Project Site (truck trailer and cargo container storage areas would not need to be raised to the same degree within the Prado Dam Reservoir Area as a building footprint) and reduce the total building area on the Project Site by approximately 44% relative to the proposed Project while still allowing productive industrial use of the entire property to meet a majority of the Project's objectives.

6.1.4 Truck Terminal Alternative

The Truck Terminal Alternative considers a proposal where the Project Site would be developed with an approximately 175,000 s.f. truck terminal in lieu of the two industrial buildings proposed by the Project. Under this alternative, all portions of the Project Site not covered by the truck terminal building or landscaping (which would be massed primarily along the Project Site's frontage with Bickmore Avenue and Mountain Avenue)

would be used as drive aisles or parking for passenger cars, truck tractors, and trailers. This alternative was selected by the Lead Agency to evaluate a scenario where the entire Project Site could be used for productive industrial use while requiring a minimal amount of fill dirt import to the Site while still allowing productive industrial use of the entire property to meet a majority of the Project's objectives.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines § 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected are described below.

6.2.1 ALTERNATIVE SITES

CEQA does not require that an analysis of alternative sites be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then an alternative sites analysis should be considered and analyzed in the EIR. In making the decision to include or exclude an analysis of an alternative site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (CEQA Guidelines Section 15126.6(f)(2)).

Historic dairy farm operations on the Project Site – and subsequent demolition of the abandoned dairy structures – have resulted in substantial disturbances across the entire Site. The Project Site does not contain any natural/native biological habitat or other natural resources. Based on a review of aerial photography and the City of Chino General Plan Map, there are no other properties in the City of Chino with similar accessibility to the regional goods movement system as the Project Site (see discussion in paragraph below), that are large enough to support the proposed Project, and that the Project Applicant has a reasonable possibility of acquiring that also would have fewer planning, development, and environmental constraints than the Project Site evaluated in this EIR.

Furthermore, placing the Project at an alternative site would be expected to result in similar permanent environmental impacts as would occur with implementation of the Project at its proposed location because the Project's significant and unavoidable impacts are primarily related to vehicles traveling to/from the Project Site and not related to the presence of sensitive resources on the Project Site or its location near sensitive receptors. Vehicle-related impacts are a direct reflection of the Project's expected operational characteristics as an industrial complex, regardless of the geographic location of the Project. The Project Site is located adjacent to Mountain Avenue and Bickmore Avenue, which are City-designated truck routes, and is located in close proximity to three other main roads that are City-designated truck routes (Kimball Avenue, El Prado Road, and Pine Avenue) as well as Euclid Avenue and State highway (SR-71) that are both State-designated truck routes. This adjacency and proximity to truck routes will minimize the distance that trucks need to travel to move goods and materials to/from the Project Site. If an alternative site was selected for the Project that was located farther from major arterial roadways, truck routes, and State highways than the Project Site, the severity of the Project's air quality impacts related to tailpipe emissions and transportation impacts would increase as mileage traveled for vehicles travelling to/from the Project would increase.

For these reasons, a more detailed analysis of alternative sites is not warranted.

6.2.2 Excess Fill Dirt Site Alternative

An alternative that would consider developing the Project on one of the excess fill dirt sites identified in this EIR was rejected because none of the excess fill dirt sites are large enough or have parcel dimensions necessary to support the two buildings proposed by the Project. Additionally, alternatives that would split the Project into two smaller Projects that would provide one industrial building on two different excess fill dirt sites or that would develop a reduced (i.e., one building) version of the Project on one excess fill dirt site were rejected because: 1) the excess fill dirt sites have lower ground surface elevations than the Project Site and would require the import of more fill from elsewhere within the Prado Dam Reservoir Area to raise building footprints above an elevation of 566 feet AMSL than would be required to develop the Project at the Project Site; 2) the excess fill dirt sites are located in closer proximity to existing and planned future sensitive receptors (i.e., residences) and operation of industrial land uses in such close proximity to sensitive land uses could expose these sensitive land uses to adverse environmental conditions (e.g., air pollution, odors, noise); 3) the excess fill dirt sites are located adjacent to areas that contain sensitive biological resources that would be adversely affected by ongoing industrial operations; and 4) the excess fill dirt sites are located in an area of Chino that is less developed that the Project Site and would require the construction of substantial infrastructure (roadways, wet and dry utilities, etc.) to adequately serve industrial land uses – the construction of this additional infrastructure would result in environmental impacts that would not occur under the Project.

For these reasons, a detailed analysis of an excess fill dirt sites alternative is not warranted.

6.2.3 Residential Land Use Alternative

As explained in this EIR, almost the entire Project Site is located within the Prado Dam Reservoir Area. Residential land uses are not permitted within the Prado Dam Reservoir Area due to flooding-related safety hazards. Were the Project Site to be developed with residential land uses, more fill dirt import would be needed than what is required for the Project. (The Project only would be required to raise proposed building footprints

above 566 AMSL, whereas all residential lots – not just the building footprints – and community/recreation amenities would be required to be raised above 566 AMSL.) Furthermore, the Project Site is surrounded by substantial industrial development and residential land uses on the Project Site would not be compatible with the existing off-site industrial land uses. Finally, the Project Site is located along the landing/departure path of one of the runways at the Chino Airport (located approximately 1.6 miles northeast of the Project Site). Given the Project Site's proximity to the Airport and the airport-related land use regulations applied to the Project Site by the City of Chino, residential land uses are discouraged on the Project Site.

For these reasons, a detailed analysis of a residential land use alternative is not warranted.

6.3 ALTERNATIVE ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts that are expected to result from implementation of the proposed Project. A conclusion is provided for each topic as to whether the alternative results in one of the following: (1) reduction or elimination of the Project's impact, (2) a greater impact than would occur under the Project, (3) the same or similar impact as the Project, or (4) a new impact in addition to the Project's impacts. Table 6-1 at the end of this section compares the impacts of the alternatives against those of the Project and identifies the ability of the alternative to meet the basic objectives of the Project. As described in EIR Section 3.0, the Project's basic objectives are:

A. To expand economic development, facilitate job creation, and increase the tax base for the City of Chino.

B. To establish a new industrial development area adjacent to or near an already-established industrial area.

C. To attract new businesses to the City of Chino and thereby provide a more equal jobs-housing balance in the City of Chino that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To assist the SCAG region in achieving jobs/housing balance region-wide by providing additional job opportunities in a housing rich area of the Inland Empire.

E. To develop Class A speculative industrial buildings in Chino that are designed to meet contemporary industry standards and are economically competitive with similar industrial buildings in the local area and region.

F. To attract a wide variety of users including those that can expedite the delivery of essential and life-sustaining goods to consumers and businesses in Chino and beyond the City boundary.

G. To develop a project with an architectural design and operational characteristics that embrace the historical context of the Chino dairy community, complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.

H. To develop a property that has access to available infrastructure, including roads and utilities.

I. To develop industrial buildings in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.

J. To provide a viable reuse plan for former factory/commercial dairy property so that the property can again be economically productive.

K. To develop property near the Chino Airport with economically viable land uses that are compatible with the Chino Airport's land use compatibility requirements.

L. To raise planned building footprints out of the Prado Dam Reservoir Area while simultaneously excavating fill soils from other properties in the Prado Dam Reservoir Area, thereby having no net decrease in, and actually increasing, the flood storage capacity and thereby minimizing flood hazards.

6.3.1 No Development Alternative

The No Development Alternative allows decision-makers to compare the environmental impacts of approving the proposed Project to the environmental impacts that would occur if the property were to be left in its existing conditions for the foreseeable future. The Project Site is currently undeveloped and owned by the Orange County Flood Control District, but was previously used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. Dairy operations on the Project Site ceased between 2013 and 2014; all structures associated with the former dairy operations have since been demolished. Limited remnants of the former dairy activities (e.g., concrete pads/foundations) are still present on portions of the Project Site. The northeast corner of the site contains several water detention basins that are three to five feet deep and a pond that is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep containing vegetation and trash. Several berms are constructed across the site and within the northeast corner of the Site that are approximately three to six feet high, and some of the berms are fitted with concrete spillways. Refer to the description of the Project Site's existing physical conditions in Section 2.0 of this EIR.

A. Agriculture and Forestry Resources

The No Development Alternative would leave the Project Site and excess fill dirt sites in their existing condition. This alternative would not commit any portion of the Project Site to non-agricultural use and, as such, this alternative would avoid the Project's less-than-significant impacts due to conflicts with the Site's existing agricultural zoning designation and the temporary prec. No forestry resources are located on the Project Site or the excess fill dirt sites.

B. Air Quality

The No Development Alternative would leave the Project Site in its existing condition; the site would remain unoccupied resulting in no short-term construction activities or long-term operational activities that have the potential to result in the emissions of air pollutants or odors. The excess fill dirt sites also would be left in their existing condition under this alternative. Under the No Development Alternative there would be no impacts due to emissions of criteria pollutants, exposure of sensitive receptors to substantial pollutant concentration, or the creation of objectionable odors. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) would continue to occur during required weed abatement activities and when wind passes over the site and disperses dust as occurs under existing conditions on the unimproved Project Site. All of the Project's short- and long-term air quality effects would be avoided under this alternative.

C. Biological Resources

The No Development Alternative would leave the Project Site in its existing condition, which would include periodic disturbances related to weed abatement activities and other routine, on-site maintenance activities. The No Development Alternative has some limited potential to adversely affect sensitive or protected avian species, including the burrowing owl and/or nesting birds during ground-disturbing/vegetation-clearing activities (such as discing or mowing for routine maintenance) and protective measures above and beyond those required by the federal Migratory Bird Treaty Act would not be required to avoid or minimize impacts to these avian species. The No Development Alternative would not result in physical impacts to any of the excess fill dirt sites. The No Development Alternative would potentially result in greater impacts to burrowing owl on the Project Site, because no protective measures would be in place. In comparison, Subsection 4.3 of this EIR specifies mitigation measures for the Project's potential impacts to burrowing owl which would reduce the potential impacts to less than significant.

D. Cultural Resources

The No Development Alternative would not affect any of the excess fill dirt sites and would leave the Project Site in its existing condition, which would include periodic ground disturbances related to weed abatement activities and other routine, on-site maintenance activities. Although not expected, the No Development Alternative does have the potential to uncover and adversely affect archaeological resources during routine ground-disturbing activities on-site. In the event that archaeological resources were uncovered on-site, the No Development Alternative would result in greater impacts than the Project because the No Development Alternative would not be obligated to implement any procedures to protect, study, and preserve artifacts that were discovered. In comparison, Subsection 4.4 of this EIR specifies mitigation measures for the Project's potential impacts to cultural resources which would reduce the potential impacts to less than significant.

E. Energy

Under the No Development Alternative, the Project Site would remain vacant and undeveloped; therefore; no near-term or long-term energy or fuel use would occur on the Site other than nominal energy consumption to support routine periodic property maintenance activities. Selection of this alternative would avoid all the Project's near- and long-term energy consumption.

F. Geology and Soils

The No Development Alternative would leave the Project Site in its existing condition, which would include periodic ground disturbances related to weed abatement activities and other routine, on-site maintenance activities; these activities all have the potential to result in water and/or wind erosion of exposed soils that would not occur on the Project Site after the Project is constructed. The Project Site would remain unoccupied under the No Development Alternative; accordingly, there would be no potential for this alternative to expose people or structures to safety risks associated with seismic or other geologic hazards.

G. Greenhouse Gas Emissions

Under the No Development Alternative, the Project Site would remain in its existing condition; therefore, there would be no sources of near-term or long-term GHG emissions. Selection of this alternative would avoid all of the Project's near- and long-term effects associated with GHG emissions.

H. Hazards and Hazardous Materials

Because no development would occur under the No Development Alternative, no new, potential hazards would be introduced to the Project Site or the excess fill dirt sites. Routine weed abatement activities would continue to occur on the Project Site to remove dry/dead vegetation that has the potential to pose a fire hazard, as required by the City of Chino. Selection of this alternative would avoid the Project's less-than-significant impacts related to hazards and hazardous materials.

I. Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Development Alternative. No stormwater drainage improvements would be constructed on the Project Site and rainfall would traverse the Site as occurs under existing conditions. The northeast corner of the Site contains the remnants of an agricultural wastewater/stormwater pond. This pond is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep containing vegetation and trash; this pond retains water during several months of the year. Two relatively smaller retention ponds approximately 10 to 12 feet deep are located on the Site adjacent to Mountain Avenue. Along the east property line, within the southeast portion of the Site, there is a slope descending about 10 to 13 feet to a flood basin area located off site to the east. Under this alternative, much of the stormwater leaving the Project Site would not be treated to minimize waterborne pollutants and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. In addition, the trash, debris and sediment that currently drains to Mountain Avenue right of way would continue to occur under this alternative. The Project Site would continue to be located in the Prado Dam Reservoir Area (i.e., areas at or below 566 feet AMSL) and be inundated with water periodically from backwater conditions at the Prado Dam. Inundated conditions would result in carrying untreated and potentially polluted water off the Project Site. Selection of this alternative would reduce the Project's impacts to hydrology and water quality resulting from transitioning the site to an urban use and installing storm water infrastructure, although all of the Project's impacts were found to be less than significant. Under the No Development Alternative, water pollutant and sedimentation release would continue to occur as it does under existing conditions, and would be greater than would occur under the proposed Project. In comparison, the Project would be required to adhere to a NPDES Permit, SWPPP and WQMP, as well as comply with City of Chino Municipal Code Chapter 13.25 (Storm Water Drainage System Regulations) as part of the Project's implementation to address construction- and operational-related water quality.

J. Land Use and Planning

The No Development Alternative would not result in any new development that would directly or indirectly result in environmental impacts due to a conflict with an existing land use plan. Comparatively, the Project proposes a General Plan Amendment and Zone Change to address consistency between the proposed industrial land uses and the City of Chino's General Plan and zoning ordinance. With the Project's proposed General

Plan Amendment and Change of Zone, however, the Project would then be consistent with all applicable land use plans, policies, and regulations. Both the No Development Alternative and the Project would result in less-than-significant land use and planning impacts.

K. Noise

The No Development Alternative would not result in construction on-site or at any of the excess fill dirt sites and, therefore, would not generate any near-term noise associated with construction. With the exception of noise resulting from routine site maintenance activities (i.e., discing and/or mowing), the No Development Alternative would not produce any noise. Additionally, because the property would not be developed and no traffic trips would be generated, the No Development Alternative would not contribute to an incremental increase in area-wide traffic noise levels. Accordingly, selection of this alternative would result in less-than-significant impacts to noise. Impacts would be reduced compared to the Project and the Project's significant construction-related noise impacts associated with temporary hauling activities would be avoided.

L. Transportation

The No Development Alternative would not generate any new vehicular traffic. Accordingly, this alternative would avoid all of the Project's significant impacts related to transportation. Under this alternative, no frontage improvements would be made to Bickmore or Mountain Avenues and there would be no fee payments made either under the City's Development Impact Fee (DIF) program or other fair share fee programs.

M. Tribal Cultural Resources

The No Development Alternative would leave the Project Site and excess fill dirt sites in their existing condition; no grading would occur under this alternative and there would be a low probability of impacting subsurface tribal cultural resources that may exist beneath the surface of the Site. Although not expected, the No Development Alternative does have the potential to uncover and adversely affect tribal cultural resources during routine ground-disturbing activities on-site. In the event that resources were uncovered on-site, the No Development Alternative would result in greater impacts than the Project because the No Development Alternative would not be obligated to implement any procedures to protect, study, and preserve tribal cultural resources. In comparison, Subsection 4.13 of this EIR specifies mitigation measures for the Project's potential impacts to tribal cultural resources which would reduce the potential impacts to less than significant.

N. Utilities and Service Systems

No new domestic water, sewer, or stormwater drainage facilities would be needed for the No Development Alternative, and there would be no increased demand for domestic water or wastewater treatment services. Also, this alternative would not demand solid waste collection and disposal services. Neither the proposed Project nor the No Development Alternative would result in significant or cumulatively-considerable impacts to utilities and service systems. Nonetheless, selection of this alternative would avoid all of the Project's demand placed on utilities and service systems.

O. Conclusion

Implementation of the No Development Alternative would result in no physical environmental impacts to the Project Site beyond those required for ongoing routine maintenance, and would result in no physical impacts to any of the excess fill dirt sites. All significant effects of the Project would be avoided by the selection of this alternative. There is some potential for burrowing owl and other avian species, cultural resources, and tribal cultural resources to be impacted by routine maintenance activities, for which there would be no obligation to mitigate those impacts. Additionally, leaving the Site in its existing condition would result in water pollutants, sediment, and fugitive dust leaving the site, as occurs under existing conditions.

The No Development Alternative would fail to meet all of the Project's objectives.

6.3.2 No Project Alternative

The No Project Alternative considers use of the Site in accordance with its existing land use designations, which are "Agriculture (AG)" over a majority of the site (92.25 acres) and "Recreation/Open Space (R/OS)" in the southeast corner of the site (4.75 acres). This alternative would not require a General Plan Amendment or a Change of Zone (which are required for the Project). Although the Project Site is currently vacant, the property was formerly used for commercial dairy farm operations that included dirt livestock pens (corrals) for the holding and separation of cattle intended for milking and slaughter and ancillary features such as hay/milking barns and open-air wastewater collection ponds. The purpose of the City of Chino's AG zoning district is to provide areas for general agricultural uses; permitted uses in the AG district include livestock ranges, crop cultivation, agriculture related residences and structures, parks and recreational areas and agricultural offices. This alternative considers use of the site for agricultural activity, either agricultural field crops, or re-establishment of a commercial dairy. Use of the site for agricultural field crops would entail clearing and grading the site to a flat or gently sloping condition, preparing the soil, and rotational planting and harvesting of crops. Resumption of dairy uses on the Project Site would require the reconstruction of new dairy structures (e.g., milking barns, feeding pens, corrals), wastewater ponds, and a caretaker residence on the Site. Under the City of Chino Municipal Code, one cow is permitted for every 6,000 s.f. of land area. Over the 97.0-acre site, approximately 700 cows could be housed on the property. The City requires that a minimum of five gross acres be provided for waste disposal and open uses per two hundred cows, or fraction thereof. As such, this alternative assumes that a least approximately 15 acres would be used for these purposes. Under this alternative, there would be no need to export dirt from the fill dirt sites analyzed in Section 4.0 of this EIR.

A. Agriculture and Forestry Resources

The No Project Alternative would leave the property zoned as Agriculture (AG) on approximately 92.25 acres and Open Space Natural (OS-20 on approximately 4.75 acres in the southwest corner of the property. The No Project Alternative would not convert any portion of the Project Site to non-agricultural use nor conflict with existing agricultural zoning. As such, this alternative would avoid the Project's less-than-significant impacts to agricultural resources. No forestry resources are located on the Project Site or the excess fill dirt sites.

B. Air Quality

The No Project Alternative is expected to result in a significant air quality impact related to fugitive dust (PM_{10} and $PM_{2.5}$) emissions during the soil preparation phases of a field crop operation, as well as odors associated with the application of fertilizer and pesticides. Should the site instead be used as a commercial dairy operation, as it was in the past, this alternative assumes that approximately 700 cows would be on the property, which produce criteria pollutants such as VOCs and PM_{10} as well as noticeable odors associated with cattle excrement and urination, which would expected to exceed SCAQMD daily emission standards and result in significant impacts. Because the No Project Alternative considers using the Project Site as a field crop or dairy farm operation, which are not expected to generate or attract nearly as much traffic as the proposed Project, this alternative is expected to reduce and likely avoid all of the Project's significant and unavoidable impact related to operational NO_X emissions (NO_X emissions primarily occur from vehicle tailpipe emissions). In summary, the No Project Alternative would increase fugitive dust emissions if the agricultural use is field crops, increase VOC and PM_{10} emissions if the agricultural use is a commercial dairy, and reduce NO_X emissions that would occur compared to developing the site with an industrial use would occur under the proposed Project.

C. Biological Resources

The No Project Alternative would make use of the entire Project Site for agricultural purposes, and would result in identical impacts to biological resources as the Project on the Project Site. No physical disturbance would occur on the excess fill dirt sites, as no dirt import would be required under this alternative. Depending on the type and nature of agricultural activities established, and the types of regulatory permits that would be required for these activities, protective measures above and beyond those required by the federal Migratory Bird Treaty Act may or may not be required to avoid or minimize impacts to burrowing owl and other avian species. Such measures would only be in place if the agricultural activity necessitated the issuance of a discretionary regulatory permit from a government body that is subject to CEQA, the National Environmental Policy Act (NEPA) or comparable regulation. Many agricultural activities do not require discretionary permits. Thus, the No Project Alternative would potentially result in greater impacts to burrowing owl on the Project Site, because protective measures may or may not be in place. In comparison, Subsection 4.3 of this EIR specifies mitigation measures for the Project's potential impacts to burrowing owl which would reduce the potential impacts to less than significant.

D. Cultural Resources

The No Project Alternative would disturb the entire Project Site for agricultural activities and would result in identical impacts to cultural resources as the Project on the Project Site, depending on the depth of ground disturbance for the agricultural activities. The No Project Alternative would not affect any of the excess fill dirt sites. Depending on the type and nature of agricultural activities established, and the types of regulatory permits that would be required for these activities, protective measures for cultural resources may or may not be required to avoid or minimize impacts to significant cultural resources that could exist beneath the surface of the site. Such measures would only be in place if the agricultural activity necessitated the issuance of a discretionary regulatory permit from a government body that is subject to CEQA, NEPA, or comparable regulation. Many agricultural activities do not require discretionary permits. In comparison, Subsection 4.4 of this EIR specifies mitigation measures for the Project's potential impacts to cultural resources which would reduce the potential impacts to less than significant.

E. Energy

Because the No Project Alternative would result in no building construction for agricultural field crop use, or limiting building area for the re-establishment of a commercial dairy, the No Project Alternative would require less energy consumption to construct and operate than the Project and, therefore, result in a reduction of energy usage as compared to the Project. Energy would be consumed under this alternative to supply water to the site to support field crops or commercial dairy operations, and to power the equipment needed to operate these agricultural uses. Because the No Project Alternative would generate fewer daily vehicle trips than the Project, this alternative would result in a lower demand for transportation energy resources than the Project. Notwithstanding, like the Project, the No Project Alternative would result in a less-than-significant impact.

F. Geology and Soils

This alternative would disturb the same physical area as the Project on the Project Site and would, therefore, have the same or similar potential for soil erosion during the construction phase as the Project and establishment phase for an agricultural use. Soil erosion impacts would be less than significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The No Project Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic activity, including ground shaking and other seismic effects. The No Project Alternative would result in a similar, less-than-significant impact to geology and soils as the Project on the Project Site. The No Project Alternative would not affect any of the excess fill dirt sites.

G. Greenhouse Gas Emissions

The No Project Alternative is expected to result in a potentially significant greenhouse gas (GHG) impact if a field crop operation is established on the site, or a significant GHG impact if commercial dairy operations re-established on the site similar to what occurred on the property before the former dairy operations were removed. According to the federal EPA, various management practices on agricultural soils can lead to substantial GHG emissions due to increased availability of nitrogen in the soil and result in emissions of nitrous oxide (N_2O). Specific activities that contribute to N_2O emissions from agricultural lands include the application of synthetic and organic fertilizers, the growth of nitrogen-fixing crops, the drainage of organic soils, and irrigation practices (EPA, 2020) Should the site be used as a commercial dairy operation, this alternative assumes that approximately 700 cows would be on the property that would produce GHG emissions in the form of methane due to the decomposition of manure and other organic material, which would be expected to exceed the amount of GHG emissions associated with the proposed Project (EPA, 2020). GHG emissions from diary operations are difficult or impossible to mitigate, whereas development projects like the proposed Project can mitigate GHG impacts through compliance with the City's Climate Action Plan. The No Project Alternative would reduce the Project's less-than-significant GHG emissions impact if the agricultural use is field crops, but would substantially increase GHG emissions compared to the Project if the agricultural use is a dairy farm operation, resulting in a significant and unavoidable GHG impact.

H. Hazards and Hazardous Materials

This alternative would disturb the same physical area as the Project on the Project Site, but the No Project Alternative would not affect any of the excess fill dirt sites. The No Project Alternative is expected to result in a less-than-significant hazards and hazardous materials impact if either a field crop operation is established on the site, or if a commercial dairy operation is re-established on the property. For field crop operations, the use of fertilizers, pesticides, and herbicides is subject to various regulatory requirements and for commercial dairy operations, animal waste management is required to be carried out in accordance with the San Bernardino County Uniform Environmental Health Code. Hazardous materials would be located on the property, but would be required to conform to regulatory requirements. Similarly, the proposed Project may introduce hazardous materials to the site that are typical of an industrial operation, which also would be transported, stored, and used in accordance with regulatory requirements. Impacts under this alternative and the proposed Project would be less than significant.

I. Hydrology and Water Quality

Minimal stormwater drainage improvements would be constructed on the Project Site if it were to be used for agricultural field crop production. Under this scenario, there is a potential that much of the stormwater leaving the Project Site would not be treated to minimize waterborne pollutants and would contain sediment and other potential pollutants, which would adversely affect water quality. The 2017 *National Water Quality Inventory* prepared by the U.S. EPA reported that agricultural nonpoint source (NPS) pollution is a common source of water quality impacts on surveyed rivers, lakes, and wetlands, and a major contributor to contamination of surveyed estuaries and ground water (EPA, 2017f). If used as a commercial dairy, wastewater ponds would be required on the property as well as storm drain infrastructure. The former ponds that still exist on the Site would likely be used, including a pond at the northeast corner of the Site that is approximately 80 to 100 feet wide, 200 feet long and 12 to 20 feet deep, and two relatively smaller retention ponds approximately 10 to 12 feet deep located adjacent to Mountain Avenue. The descending slope along the east property line, within the southeast portion of the Site also would remain and drain to a flood basin area located off site to the east. There is a higher probably of water quality pollutants being discharged from the Site or infiltrating in the groundwater from a commercial dairy operation than from an industrial development like the one that would occur on the property under the proposed Project. Animal feeding operations are cited by the EPA as a primary source of water pollution in rivers, streams, lakes, and wetlands (EPA, 2017f).

In addition, under either the agricultural field crop or commercial dairy scenarios, the Project Site would continue to be located in the Prado Dam Reservoir Area (i.e., areas at or below 566 feet AMSL). The property would be periodically inundated with water from backwater conditions at the Prado Dam. These events would carry water pollutants off the Project Site, which would not occur under the Project because the Project evaluated in Section 4.0 of this EIR entails raising the proposed building footprints out of the Reservoir Area. One of the reasons that the former commercial dairy was removed from the property was to reduce the potential for water quality contamination, and particularly cow urine, during backwater events.

Selection of this alternative would increase the Project's impacts to hydrology and water quality as compared to the less-than-significant impacts that would occur under the proposed Project. In comparison, the Project would be required to adhere to a NPDES Permit, SWPPP and WQMP, as well as comply with City of Chino

Municipal Code Chapter 13.25 (Storm Water Drainage System Regulations) as part of the Project's implementation to address construction- and operational-related water quality.

J. Land Use and Planning

The No Project Alternative would use the Site for agricultural purposes, consistent with the City of Chino General Plan and zoning designations for the property. Comparatively, the Project proposes a General Plan Amendment and Zone Change to address consistency between the proposed industrial land uses and the City of Chino's General Plan and zoning ordinance. With the Project's proposed General Plan Amendment and Change of Zone, however, the Project would then be consistent with all applicable land use plans, policies, and regulations. Both the No Project Alternative and the Project would result in less-than-significant land use and planning impacts.

K. Noise

The No Project Alternative would result in agricultural use of the Site. Because no dirt import would be required to establish these uses, the selection of this alternative would reduce and avoid the Project's significant and unavoidable short-term noise impact associated with daytime and nighttime hauling activity, which would be necessary to raise the site to position industrial building footprints at an elevation above the Prado Dam Reservoir Area (566 feet AMSL). In the long term, with the exception of limited noise resulting from crop planting and harvesting, the No Project Alternative would result in little noise if the property was used for agricultural field crops. If the property were to be used as a commercial dairy operation, noise sources associated with dairy activities would include the operation of dairy equipment and the presence of livestock. The operational noise levels associated with these activities would be less than operational noise levels expected from operating industrial uses on the property as would occur under the proposed Project. In addition, because the agricultural uses would not be traffic intensive, substantially fewer vehicle trips would travel to and from the property, resulting in a lower contribution to area-wide traffic noise levels than would occur under the proposed Project. Accordingly, selection of this alternative would result in less-than-significant impacts to noise. Impacts would be reduced compared to the Project and the Project's significant construction-related noise impacts associated with temporary hauling activities would be avoided.

L. Transportation

The No Project Alternative would generate substantially less daily and peak hour traffic than the proposed Project and, therefore, would reduce the severity of impacts to study area intersections and freeway facilities compared to the Project. As a result of the reduction in traffic, the No Project Alternative likely would avoid the Project's cumulatively-considerable unavoidable transportation impacts. Under this alternative, no frontage improvements would be made to Bickmore or Mountain Avenues and there would be no fee payments made either under the City's Development Impact Fee (DIF) program or other fair share fee programs. Agricultural uses are not subject to the City's DIF.

M. Tribal Cultural Resources

The No Project Alternative would disturb the entire Project Site for agricultural activities and would result in identical impacts to tribal cultural resources as the Project on the Project Site, depending on the depth of ground

disturbance for the agricultural activities. The No Project Alternative would not affect any of the excess fill dirt sites. Depending on the type and nature of agricultural activities established, and the types of regulatory permits that would be required for these activities, protective measures for tribal cultural resources may or may not be required to avoid or minimize impacts to significant resources that could exist beneath the surface of the site. Such measures would only be in place if the agricultural activity necessitated the issuance of a discretionary regulatory permit from a government body that is subject to CEQA, NEPA, or comparable regulation. Many agricultural activities do not require discretionary permits. In comparison, Subsection 4.13 of this EIR specifies mitigation measures for the Project's potential impacts to tribal cultural resources which would reduce the potential impacts to less than significant.

N. Utilities and Service Systems

The No Project Alternative would result in some demand for public utility and service systems, although less demand than would be required by the proposed Project. The Project would result in the construction of domestic water, sewer, and stormwater drainage improvements and connections to municipal systems, whereas agricultural uses would likely not connect into the municipal service systems and rely on well, septic, and on-site collection ponds. The No Project Alternative would result in a demand for solid waste collection and disposal services that is lower than what would be needed to service the proposed Project's demand, but in either scenario landfill capacity is available and impacts would be less than significant.

O. Conclusion

The No Project Alternative would avoid the Project's significant and unavoidable construction noise impacts and transportation impacts, but would not avoid the Project's significant and unavoidable air quality impact because measurable quantities of air pollutants would be emitted during agricultural operations, particularly fugitive dust, that have the potential to exceed SCAQMD daily thresholds of significance. Additionally, the No Project Alternative would not avoid the Project's significant and unmitigated GHG impact, because agricultural operations are a source of GHGs. Lastly, the alternative would increase impacts associated with hydrology and water quality as compared to the proposed Project because agricultural uses are a leading source of water quality pollutants as reported by the federal EPA (EPA, 2017f).

The No Project Alternative would fail to meet all of the Project's objectives.

6.3.3 Trailer and Cargo Container Storage Alternative

The Trailer and Cargo Container Storage Alternative provides for the development of the northern portion of the Project Site with a 1,168,710 s.f. cross-dock industrial building with a development plan (site layout, architecture, landscaping, utility improvements) identical to Building 1 proposed by the Project. The Trailer and Cargo Container Storage Alternative also provides for the development of the southern portion of the Project Site with a truck trailer and cargo container storage lot that would include space for between 850 and 1,000 trailers and cargo containers. The Trailer and Cargo Container Storage Alternative would provide landscaping and solid screen walls abutting the Site's boundaries with Mountain Avenue and the El Prado Golf Course Facility to hide the storage lot from public view.

The Trailer and Cargo Container Storage Alternative was selected to evaluate the environmental impacts associated with a development scenario that would reduce the total building floor area on-site by approximately 44% (thereby reducing the amount of fill dirt import required for the Project Site – as truck trailer parking/cargo container storage space would not need to be raised to the same degree within the Prado Dam Reservoir Area as a building footprint – shortening the construction period and reducing long-term demands for energy resources) but still develop the entire site with productive industrial land uses. The Trailer and Cargo Container Storage Alternative would thus require the use of fewer excess fill dirt sites than the Project; however, the limits of physical ground disturbance at the excess fill dirt sites that are ultimately used under this alternative would have the disturbance limits that would occur under the proposed Project. In other words, fewer excess fill dirt sites would be used, but the ones that are used, would have the same limits of disturbance. The truck trailer parking and cargo container storage lot would complement the proposed light industrial building on the northern portion of the Project Site and could, possibly, support site operations at proposed Building 1 or nearby warehouses in the south Chino/Preserve area as some light industrial and logistics warehouse operators require additional spaces for truck trailer parking and/or container storage to support their business operations.

A. Agriculture and Forestry Resources

The Trailer and Cargo Container Storage Alternative would redevelop the entire Project Site and would result in identical, less-than-significant impacts to agriculture and forestry resources on the Project Site as the proposed Project. The Trailer and Cargo Container Storage Alternative would require less fill dirt than the Project and; however, the limits of physical disturbance at the individual excess fill dirt sites used to acquire earth materials would be the same as the Project. As with the proposed Project, temporary impacts to agriculture and forestry resources would be less than significant under this alternative. Following completion of grading and excavation activities at the specific excess fill dirt site(s) that are used for the Trailer and Cargo Container Storage Alternative, the affected site(s) would be hydroseeded with a native seed mix – as would occur with the proposed Project – and there would be no permanent physical improvements at the site(s) that would preclude them from being used for agriculture in the future. No long-term/permanent impact to agriculture and forestry resources would occur at any excess fill dirt site under the Trailer and Cargo Container Storage Alternative, which is the same determination made for the proposed Project.

B. Air Quality

Under this alternative, the overall duration of construction would be reduced as compared to the proposed Project due to the need to import less fill dirt to the Project Site and the reduction of approximately 914,040 s.f. of building area. As such, the total amount of air pollutant emissions generated during the construction phase would be reduced under this alternative as compared to the Project. However, the peak intensity of construction activities for the Trailer and Cargo Container Storage Alternative would be similar under both this alternative and the proposed Project because both scenarios would disturb the same physical area on the Project Site and require soil import from one or more of the excess fill dirt sites. Therefore, the peak daily emissions during the construction phase of the Trailer and Cargo Container Storage Alternative would be significant – and similar to the Project. The Trailer and Cargo Container Storage Alternative would require the same mitigation as the Project to reduce construction-related emissions of NOx (i.e., MM 4.2-3); but, as is the case with the Project, the mitigation measures would not be sufficient to reduce peak construction NOx

emissions. Accordingly, implementation of the Trailer and Cargo Container Storage Alternative, like the Project, is expected to result in a significant and unavoidable air quality impact during construction.

Because the Trailer and Cargo Container Storage Alternative would result in less building floor area than the Project, the Trailer and Cargo Container Storage Alternative is expected to require less energy to operate than the Project and, therefore, would result in a reduction of non-mobile source air pollutant emissions as compared to the Project. Although the Trailer and Cargo Container Storage Alternative would develop the Project Site with less building floor area than the Project, daily mobile source air emissions during operations are expected to be similar – or slightly increase – in comparison to the Project. (Based on traffic generation rates from the ITE and field observations for similar uses, actual daily passenger vehicle trips under this alternative are expected to be reduced by approximately 700 trips but actual daily heavy-duty truck trips are expected to increase by approximately 500 under this alternative.) In total, the Trailer and Cargo Container Storage Alternative would result in an incremental reduction in the Project's operational air quality emissions; however, impacts would be significant and unavoidable (as is the case with the Project).

Due to an increase in heavy-duty truck trips, this alternative would result in greater carcinogenic and non-carcinogenic health risk hazards than the Project (due to an increase in diesel particulate matter emissions) but, even with the increase, health risk hazards are expected to be less than significant under the Trailer and Cargo Container Storage Alternative due to the distance of sensitive receptors to the Project Site.

Like the Project, the Trailer and Cargo Container Storage Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

C. Biological Resources

The Trailer and Cargo Container Storage Alternative would redevelop the entire Project Site and would result in identical impacts to biological resources on the Project Site as the proposed Project. The Trailer and Cargo Container Storage Alternative would be required to comply with the same mitigation measures as the Project (i.e., MMs 4.3-1, 4.3-2, and 4.3-6) to ensure that significant impacts to the burrowing owl and nesting birds do not occur during construction.

The Trailer and Cargo Container Storage Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the excess fill dirt sites used would be the same as the Project. Thus, while collective temporary impacts at the excess fill dirt sites would be reduced relative to the Project, the impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Trailer and Cargo Container Storage Alternative would be required to comply with the same mitigation measures as the Project to address potential impacts to burrowing owls, nesting birds, the least Bell's vireo, and the tri-colored blackbird (i.e., MM 4.3-1, 4.3-3, 4.3-4, 4.3-5, 4.3-6) to ensure that substantial adverse effects do not occur at the specific excess fill dirt site(s) selected for this alternative. Following completion of

grading and excavation activities at the specific excess fill dirt site(s) that are used for the Trailer and Cargo Container Storage Alternative, the affected site(s) would be hydroseeded with a native seed mix – as would occur with the proposed Project – and there would be no permanent physical improvements at the site(s) that would affect biological resources. No long-term/permanent impact to biological resources would occur at any excess fill dirt site under the Trailer and Cargo Container Storage Alternative, which is the same determination made for the proposed Project.

D. Cultural Resources

The Trailer and Cargo Container Storage Alternative would redevelop the entire Project Site and would result in identical impacts to cultural resources on the Project Site as the proposed Project and would be required to comply with the same mitigation measures as the Project to avoid potential impacts to buried/masked cultural resources that may be present on the Site (i.e., MMs 4.4-1 through 4.4-5).

The Trailer and Cargo Container Storage Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the individual excess fill dirt sites used would be the same as with the Project. Thus, while the Trailer and Cargo Container Storage Alternative would reduce the overall potential of disturbing buried/masked cultural resources at the excess fill dirt sites, the potential for impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Trailer and Cargo Container Storage Alternative would be required to comply with the same mitigation measures as the Project to preclude potential impacts to cultural resources at the excess fill dirt sites (i.e., MMs 4.4-1 through 4.4-5).

After the application of mitigation, the Trailer and Cargo Container Storage Alternative would result in less-than-significant impacts to cultural resources, which is the same conclusion made for the Project.

E. Energy

Because the Trailer and Cargo Container Storage Alternative would result in less building floor area than the Project, the Trailer and Cargo Container Storage Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of energy usage as compared to the Project. The Trailer and Cargo Container Storage Alternative would generate a similar number of daily vehicle trips as the Project and, therefore, would result in the consumption of a similar amount of transportation energy. The Trailer and Cargo Container Storage Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

F. Geology and Soils

This alternative would disturb a smaller overall footprint than the Project (when considering the Project Site and the excess fill dirt site(s) needed for soil import) and would, therefore, have a reduced potential for soil erosion during the construction phase. Notwithstanding, soil erosion impacts would be less than significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The Trailer and Cargo Container Storage Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards on the Project Site

associated with seismic ground shaking and geologic hazards. The Trailer and Cargo Container Storage Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

G. Greenhouse Gas Emissions

Because the Trailer and Cargo Container Storage Alternative would result in less building floor area than the Project, the Trailer and Cargo Container Storage Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of non-mobile source GHG emissions as compared to the Project. The Trailer and Cargo Container Storage Alternative would generate a similar amount of mobile source GHG emissions as the Project due to comparable total daily traffic. In total, the Trailer and Cargo Container Storage Alternative would reduce the Project's GHG emissions; however, impacts would be less than significant under both this alternative and the Project.

H. Hazards and Hazardous Materials

Neither implementation of the Trailer and Cargo Container Storage Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the Trailer and Cargo Container Storage Alternative would have a similar potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the Trailer and Cargo Container Storage Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the Project nor the Trailer and Cargo Container Storage Alternative would result in alterations to the existing drainage pattern of the Project Site or excess fill dirt sites that would result in flooding or substantial erosion downstream. Like the Project, the Trailer and Cargo Container Storage Alternative would be required to implement a SWPPP to ensure that stormwater runoff emanating from the Project Site and excess fill dirt sites during construction does not contain substantial pollutant concentrations. Both the Project and the Trailer and Cargo Container Storage Alternative would result in less-than-significant construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project Site would be similar under both the Trailer and Cargo Container Storage Alternative and the Project due to this alternative and the Project both providing a similar amount of non-pervious surfaces. Like the Project, the Trailer and Cargo Container Storage Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project Site. Additionally, like the Project, the Trailer and Cargo Container Storage Alternative would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the Site does not contain substantial pollutant concentrations. The Trailer and Cargo Container Storage Alternative would apply a hydroseed mix to the excess fill dirt site(s) that are disturbed during construction of the alternative; when established, the hydroseed mix would ensure the affected excess fill dirt site have adequate plant cover to preclude adverse long-term water quality effects (i.e., erosion). Both the Project and the Trailer and Cargo Container Storage Alternative would result in less-than-significant operational impacts to hydrology and water quality.

J. Land Use and Planning

Both this alternative and the Project would require a General Plan Amendment and a Change of Zone to develop the subject property with industrial land uses. Both the Trailer and Cargo Container Storage Alternative and the Project would result in less-than-significant land use and planning impacts.

K. Noise

Under this alternative, the overall duration of construction would be reduced as compared to the proposed Project due to the need to import less fill dirt to the Project Site and the reduction of approximately 914,040 s.f. of building area. As such, the total time period over which the Trailer and Cargo Container Storage Alternative would produce construction noise would be less than the proposed Project. However, the peak intensity of construction activities for the Trailer and Cargo Container Storage Alternative would be similar under both this alternative and the Project because both scenarios would utilize the same types of construction equipment and would require the same types of construction activities, including soil import from one or more excess fill dirt site. As noted above, the Trailer and Cargo Container Storage Alternative would require less fill dirt import than the Project and is expected to use fewer excess fill dirt sites than the Project. Thus, construction of the Trailer and Cargo Container Storage Alternative is expected to avoid one or more – but not all – of the significant impacts to sensitive receptors from grading/excavation activities on the excess fill dirt sites and/or hauling fill dirt from the excess fill dirt sites. However, because it is not known what excess fill dirt site(s) would be utilized for the Trailer and Cargo Container Storage Alternative, this alternative would be required to comply with the same mitigation as the Project to address construction noise at the excess fill dirt sites (i.e., MM 4.11-1).

Under long-term operational conditions, noise impacts from operations on the Project Site (i.e., stationary noise) would be similar (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities) and similar daily traffic volumes.

L. Transportation

Based on traffic generation rates from the ITE and field observations for similar uses, this alternative would generate approximately, 6,560 PCE trips per day. The Trailer and Cargo Container Storage Alternative would increase the severity of all Project-related transportation impacts due to an approximately 15-percent increase in average daily PCE trips. The Trailer and Cargo Container Storage Alternative would be required to comply with the same transportation mitigation measures required of the Project and could warrant additional mitigation.

M. Tribal Cultural Resources

The Trailer and Cargo Container Storage Alternative would redevelop the entire Project Site and would result in identical impacts to tribal cultural resources on the Project Site as the proposed Project and would be required to comply with the same mitigation measure as the Project to avoid potential impacts to buried/masked tribal cultural resources that may be present on the Site (i.e., MM 4.13-1).

The Trailer and Cargo Container Storage Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the individual excess fill dirt sites used would be the same as with the Project. Thus, while the Trailer and Cargo Container Storage Alternative would reduce the overall potential of disturbing buried/masked tribal cultural resources at the excess fill dirt sites, the impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Trailer and Cargo Container Storage Alternative would be required to comply with the same mitigation measure as the Project to preclude potential impacts to tribal cultural resources at the excess fill dirt sites (i.e., MM 4.13-1).

After the application of mitigation, the Trailer and Cargo Container Storage Alternative would result in less-than-significant impacts to tribal cultural resources, which is the same conclusion made for the Project.

N. Utilities and Service Systems

Due to a reduced building area, the Trailer and Cargo Container Storage Alternative is expected to have a reduced demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, as compared to the Project. However, as with the Project, the Trailer and Cargo Container Storage Alternative is expected to result in a less-than-significant impact to utilities and services systems.

O. Conclusion

The Trailer and Cargo Container Storage Alternative would reduce – but not avoid – the Project's significant and unavoidable construction noise impacts but this alternative is not expected to reduce or avoid the Project's significant and unavoidable air quality or transportation impacts (and this alternative is actually expected to increase the severity of the Project's transportation impacts due to a 15-percent increase in average daily PCE trips.). The Trailer and Cargo Container Storage Alternative is expected to increase carcinogenic and non-carcinogenic health risk hazards as compared to the Project; however, such impacts are expected to be less than significant and not require mitigation. The Trailer and Cargo Container Storage Alternative would slightly reduce the Project's less-than-significant impacts to biological resources, cultural resources, and tribal cultural resources due to the need to disturb fewer excess fill dirt sites, and reduce the Project's less-than-significant energy and utilities and service systems impacts due to less building square footage being constructed, reducing the demand for energy and utility consumption as compared to the proposed Project.

This alternative would meet Project Objectives A, C, D, E, F, and I, but would do so less successfully than the Project because the reduction in building area would result in fewer job opportunities for City of Chino residents. The Trailer and Cargo Container Storage Alternative would meet all other Project Objectives.

6.3.4 Truck Terminal Alternative

The Truck Terminal Alternative provides for the development of an approximately 175,000 s.f. truck terminal building in the center of the Project Site with a substantial area of the site devoted to parking (passenger car, truck tractor, and trailers). The Truck Terminal Alternative would provide a building of utilitarian design; landscaping and solid screen walls abutting the Site's boundaries with Bickmore Avenue, Mountain Avenue

and the El Prado Golf Course Facility would need to be installed to hide the parking and loading areas from public view.

The Truck Terminal Alternative was selected to evaluate the environmental impacts associated with a development scenario that would result in the minimum amount of fill dirt that would need to be imported to the Project Site to still allow the entire Site to be used productively as an industrial use. Due to the need for a lesser amount of fill dirt, fewer of the excess fill dirt sites would be physically disturbed, thereby shortening the duration of construction activities and minimizing the exposure of sensitive receptors to the effects of soil excavation and hauling in proximity to the excess fill dirt sites and in proximity to the haul routes used for dirt import. The limits of physical ground disturbance at the excess fill dirt sites that are ultimately used under this alternative would have the disturbance limits that would occur under the proposed Project. In other words, fewer excess fill dirt sites would be used, but the ones that are used, would have the same limits of disturbance as would occur under the proposed Project.

A. Agriculture and Forestry Resources

The Truck Terminal Alternative would redevelop the entire Project Site and would result in identical, less-than-significant impacts to agriculture and forestry resources on the Project Site as the proposed Project. The Truck Terminal Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of physical disturbance at the excess fill dirt sites that are actually used under this alternative would be the same limits of physical disturbance that would occur under the proposed Project. Thus, while collective temporary impacts at the excess fill dirt sites would be reduced relative to the Project, the physical limits of impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be the same as the disturbance limits that would occur under the proposed Project. As with the proposed Project, temporary impacts to agriculture and forestry resources would be less than significant under this alternative. Following completion of grading and excavation activities at the specific excess fill dirt site(s) that are used for the Truck Terminal Alternative, the affected site(s) would be hydroseeded with a native seed mix – as would occur with the proposed Project – and there would be no permanent physical improvements at the site(s) that would preclude them from being used for agriculture in the future. No long-term/permanent impact to agriculture and forestry resources would occur at any excess fill dirt site under the Truck Terminal Alternative, which is the same determination made for the proposed Project.

B. Air Quality

Under this alternative, the overall duration of construction would be substantially reduced as compared to the proposed Project due to the need to import far less fill dirt to the Project Site and the reduction of approximately 1,907,750 s.f. of building area (although implementation of this alternative would require a substantial increase in the amount of paving required on the Project Site). As such, the total amount of air pollutant emissions generated during the construction phase would be reduced under this alternative as compared to the Project. However, the peak intensity of construction activities for the Truck Terminal Alternative would be similar under both this alternative and the proposed Project because both scenarios would disturb the same physical area on the Project Site and require soil import (although soil import required for the Truck Terminal Alternative would be substantially less than what is required for the Project). Therefore, the peak daily

emissions during the construction phase of the Truck Terminal Alternative would be significant – and similar to the Project. The Truck Terminal Alternative would require the same mitigation as the Project to reduce construction-related emissions of NOx (i.e., MM 4.2-3); but, as is the case with the Project, the mitigation measures would not be sufficient to reduce peak construction NOx emissions. Accordingly, implementation of the Truck Terminal Alternative, like the Project, is expected to result in a significant and unavoidable air quality impact during construction.

Because the Truck Terminal Alternative would result in less building floor area than the Project, this alternative is expected to require less energy to operate than the Project and, therefore, would result in a reduction of non-mobile source air pollutant emissions as compared to the Project. Although the Truck Terminal Alternative would develop the Project Site with less building floor area than the Project, daily mobile source air pollutant emissions from this alternative are expected to be substantially higher than the Project because the Truck Terminal Alternative would result in an approximate two-fold increase in truck traffic to-and-from the Project Site. (Based on traffic generation rates from the ITE for truck terminal land uses, this alternative would generate approximately 1,760 truck trips per day as compared to 824 daily truck trips for the Project). Implementation of the Truck Terminal Alternative would be required to comply with the same mitigation measures as the Project to minimize mobile-source NOx emissions (i.e., MMs 4.2-4 through 4.2-8) and, yet, would still result in more severe mobile-source air quality impacts than the Project.

Due to a substantial increase in heavy-duty truck trips, this alternative would result in greater carcinogenic and non-carcinogenic health risk hazards than the Project (due to an increase in diesel particulate matter emissions); but, even with the increase, health risk hazards are expected to be less than significant under the Truck Terminal Alternative.

Like the Project, the Truck Terminal Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

C. Biological Resources

The Truck Terminal Alternative would redevelop the entire Project Site and would result in identical impacts to biological resources on the Project Site as the proposed Project. The Truck Terminal Alternative would be required to comply with the same mitigation measures as the Project (i.e., MMs 4.3-1, 4.3-2, and 4.3-6) to ensure that significant impacts to the burrowing owl and nesting birds do not occur during construction.

The Truck Terminal Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the individual excess fill dirt site (or sites) utilized for this alternative would be similar to the Project. Thus, while collective temporary impacts at the excess fill dirt sites would be reduced relative to the Project, the impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Truck Terminal Alternative would be required to comply with the same mitigation measures as the

Project to address potential impacts to burrowing owls, nesting birds, the least Bell's vireo, and the tri-colored blackbird (i.e., MM 4.3-1, 4.3-3, 4.3-4, 4.3-5, 4.3-6) to ensure that substantial adverse effects do not occur at the specific excess fill dirt site(s) selected for this alternative. Following completion of grading and excavation activities at the specific excess fill dirt site(s) that are used for the Truck Terminal Alternative, the affected site(s) would be hydroseeded with a native seed mix – as would occur with the proposed Project – and there would be no permanent physical improvements at the site(s) that would affect biological resources. No long-term/permanent impact to biological resources would occur at any excess fill dirt site under the Truck Terminal Alternative, which is the same determination made for the proposed Project.

D. Cultural Resources

The Truck Terminal Alternative would result in identical impacts to cultural resources on the Project Site as the proposed Project and would be required to comply with the same mitigation measures as the Project to avoid potential impacts to buried/masked cultural resources that may be present on the Site (i.e., MMs 4.4-1 through 4.4-5).

The Truck Terminal Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the individual excess fill dirt sites used would be the same as with the Project. Thus, while the Truck Terminal Alternative would reduce the overall potential of disturbing buried/masked cultural resources at the excess fill dirt sites, the impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Truck Terminal Alternative would be required to comply with the same mitigation measures as the Project to preclude potential impacts to cultural resources at the excess fill dirt sites (i.e., MMs 4.4-1 through 4.4-5).

After the application of mitigation, the Truck Terminal Alternative would result in less-than-significant impacts to cultural resources, which is the same conclusion made for the Project.

E. Energy

The Truck Terminal Alternative would develop less building floor area on the Project Site than the Project which would result in this alternative requiring less energy to construct and operate its one building than the two large buildings proposed by the Project. Notwithstanding, the Truck Terminal Alternative would result in a slight increase in average daily traffic (including a substantial increase in the daily number of heavy truck trips) relative to the Project which would increase the amount of transportation energy consumed. Because the consumption of transportation energy is an ongoing event, the extra consumption of transportation energy under the Truck Terminal Alternative would outstrip the one-time energy savings from a shorter, less energy-intensive construction phase. The Truck Terminal Alternative would increase the Project's energy impact, although impacts are expected to remain less than significant under this alternative.

F. Geology and Soils

This alternative would disturb a smaller overall footprint than the Project (when considering the Project Site and the excess fill dirt site(s) needed for soil import) and would, therefore, have a reduced potential for soil erosion during the construction phase. Notwithstanding, soil erosion impacts would be less than significant

under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The Truck Terminal Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards on the Project Site associated with seismic ground shaking and geologic hazards. The Truck Terminal Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

G. Greenhouse Gas Emissions

Because the Truck Terminal Alternative would result in less building floor area than the Project, this alternative would require less energy to construct and operate than the Project and, therefore, would result in a reduction of non-mobile source GHG emissions as compared to the Project. The Truck Terminal Alternative would generate more mobile source GHG emissions than the Project due to more average daily traffic (and a substantial increase in daily truck traffic). Mobile sources are a primary source of GHG emissions and the additional mobile source GHG emissions under this alternative would outweigh any reductions in GHG emissions from a shorter construction phase or reduced intensity of building operations. The Truck Terminal Alternative would result in a more severe GHG impact than the Project; however, like the Project, this alternative is anticipated to result in a less-than-significant environmental impact from GHG emissions.

H. Hazards and Hazardous Materials

Neither implementation of the Truck Terminal Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the Truck Terminal Alternative would have a similar potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the Truck Terminal Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the Project nor the Truck Terminal Alternative would result in alterations to the existing drainage pattern of the Project Site or excess fill dirt sites that would result in flooding or substantial erosion downstream. Like the Project, the Truck Terminal Alternative would be required to implement a SWPPP to ensure that stormwater runoff emanating from the Project Site and excess fill dirt sites during construction does not contain substantial pollutant concentrations. Both the Project and the Truck Terminal Alternative would result in less-than-significant construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project Site would be similar under both the Truck Terminal Alternative and the Project due to this alternative and the Project both providing a similar amount of non-pervious surfaces. Like the Project, the Truck Terminal Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project Site. Additionally, like the Project, the Truck Terminal Alternative would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the Site does not contain substantial pollutant concentrations. The Truck Terminal Alternative would apply a hydroseed mix to the excess fill dirt site(s) that are disturbed during construction of the alternative; when established, the hydroseed mix would ensure the affected excess fill dirt site have

adequate plant cover to preclude adverse long-term water quality effects (i.e., erosion). Both the Project and the Truck Terminal Alternative would result in less-than-significant operational impacts to hydrology and water quality.

J. Land Use and Planning

Both this alternative and the Project would require a General Plan Amendment and a Change of Zone to develop the subject property with industrial land uses. The Truck Terminal Alternative would result in less-than-significant land use and planning impacts, as is the case with the Project.

K. Noise

Under this alternative, the overall duration of construction would be reduced as compared to the proposed Project due to the need to import less fill dirt to the Project Site and the reduction of approximately 1,907,750 s.f. of building area. As such, the total time period over which the Truck Terminal Alternative would produce construction noise would be less than the proposed Project. However, the peak intensity of construction activities for the Truck Terminal Alternative would be similar under both this alternative and the Project because both scenarios would utilize the same types of construction equipment and would require the same types of construction activities, including soil import from one or more excess fill dirt site. As noted above, the Truck Terminal Alternative would require less fill dirt import than the Project and is expected to use fewer excess fill dirt sites than the Project. Thus, construction of the Truck Terminal Alternative is expected to avoid one or more – but not all – of the significant impacts to sensitive receptors from grading/excavation activities on the excess fill dirt sites and/or hauling fill dirt from the excess fill dirt sites. However, because it is not known what excess fill dirt site(s) would be utilized for the Truck Terminal Alternative, this alternative would be required to comply with the same mitigation as the Project to address construction noise at the excess fill dirt sites (i.e., MM 4.11-1).

Under long-term operational conditions, noise impacts from operations on the Project Site (i.e., stationary noise) would be similar (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities). However, traffic noise impacts under this alternative are expected to increase due to a substantial increase in daily truck traffic (but still remain less than significant).

L. Transportation

Based on traffic generation rates from the ITE for truck terminal land uses, this alternative would generate approximately, 6,050 PCE trips per day. The Truck Terminal Alternative would increase the severity of all Project-related transportation impacts due to an approximately 5-percent increase in average daily PCE trips. The Truck Terminal Alternative would be required to comply with the same transportation mitigation measures required of the Project and could warrant additional mitigation.

M. Tribal Cultural Resources

The Truck Terminal Alternative would redevelop the entire Project Site and would result in identical impacts to tribal cultural resources on the Project Site as the proposed Project and would be required to comply with

the same mitigation measure as the Project to avoid potential impacts to buried/masked tribal cultural resources that may be present on the Site (i.e., MM 4.13-1).

The Truck Terminal Alternative would require less fill dirt than the Project and, thus, would require the use of fewer excess fill dirt sites than the Project; however, the limits of impact at the individual excess fill dirt sites used would be the same as with the Project. Thus, while the Truck Terminal Alternative would reduce the overall potential of disturbing buried/masked tribal cultural resources at the excess fill dirt sites, the impacts at the specific excess fill dirt site(s) that are used to import fill dirt to the Project Site under this alternative would be identical to the Project. Thus, the Truck Terminal Alternative would be required to comply with the same mitigation measure as the Project to preclude potential impacts to tribal cultural resources at the excess fill dirt sites (i.e., MM 4.13-1).

After the application of mitigation, the Truck Terminal Alternative would result in less-than-significant impacts to tribal cultural resources, which is the same conclusion made for the Project.

N. Utilities and Service Systems

Due to a reduced building area, the Truck Terminal Alternative is expected to have a reduced demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, as compared to the Project. However, as with the Project, the Truck Terminal Alternative is expected to result in a less-than-significant impact to utilities and services systems.

O. Conclusion

The Truck Terminal Alternative would reduce – but not avoid – the Project's significant and unavoidable construction noise impacts because hauling of dirt from excess fill dirt sites to the Project site would occur over a shorter duration. This alternative is not expected to reduce or avoid the Project's significant and unavoidable air quality or transportation impacts (and, likely, would increase the severity of vehicular-related impacts because the Truck Terminal Alternative would result in an approximately 5-percent increase in average daily PCE trips as compared to the Project). The Truck Terminal Alternative is expected to increase carcinogenic and non-carcinogenic health risk hazards, energy use, and greenhouse gas emissions as compared to the Project due to the increase in daily vehicle trips; however, such impacts are expected to be less than significant and not require mitigation. The Truck Terminal Alternative would reduce the Project's less-than-significant impacts to biological resources, cultural resources, and tribal cultural resources due to the need to disturb fewer excess fill dirt sites, and reduce the Project's less-than-significant energy and utilities and service systems impacts due to less building square footage being constructed, reducing the demand for energy and utility consumption as compared to the proposed Project.

The Truck Terminal Alternative would not meet Project Objectives E or G, as the truck terminal would not offer a development option that could accommodate a variety of users and would likely not be able to offer an architectural design that complements other existing and planned buildings in the immediate vicinity due to the utilitarian use of a truck terminal. This alternative would meet Project Objectives A, C, D, F and H, but would do so less successfully than the Project because the reduction in building area would result in fewer job

opportunities for City of Chino residents and result in less building space in close proximity to designated truck routes. The Truck Terminal Alternative would meet all other Project Objectives.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the Project Site and its surrounding environment.

As shown in Table 6-1, both the No Project Alternative and No Development Alternative would avoid or reduce all of the Project's significant environmental impacts and, therefore, can be considered environmentally superior to the Project. However, the No Project Alternative and No Development Alternative are considered to be a "no project" alternative as defined by CEQA Guidelines Section 15126.6(e)(3). If a "no project" alternative is identified as the environmentally superior alternative then the EIR shall also identify an environmentally superior alternative among the other alternatives (see CEQA Guidelines Section 15126.6(e)(2). Thus, the Trailer and Cargo Container Storage Alternative, as described in Subsection 6.3.4, is identified as the environmentally superior alternative, because the Trailer and Cargo Container Storage Alternative would result in the greatest reduction of environmental impacts among the remaining alternatives as summarized in Table 6-1.

Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts

Environmental Topic	Project Significance of Impacts After Mitigation	Level of Impact Compared to the Project				
		No Development Alternative	No Project Alternative		Trailer and Cargo Container Storage Alternative	Truck Terminal Alternative
			Field Crops	Dairy		
Agriculture and Forestry Resources	Less-than-Significant Impact	Avoided	Avoided	Avoided	Reduced	Reduced
Air Quality	Significant and Unavoidable	Avoided	Reduced	Similar	Similar	Increased
Biological Resources	Less-than-Significant Impact	Increased	Similar or Increased	Similar or Increased	Reduced	Reduced
Cultural Resources	Less-than-Significant Impact	Increased	Similar or Increased	Similar or Increased	Reduced	Reduced
Energy	Less-than-Significant Impact	Avoided	Reduced	Reduced	Reduced	Increased
Geology and Soils	Less-than-Significant Impact	Increased	Similar	Similar	Similar	Similar
Greenhouse Gas Emissions	Less-than-Significant Impact	Avoided	Reduced	Increased	Similar	Increased
Hazards and Hazardous Materials	Less-than-Significant Impact	Avoided	Similar	Similar	Similar	Similar
Hydrology and Water Quality	Less-than-Significant Impact	Mixed	Increased	Increased	Similar	Similar
Land Use and Planning	Less-than-Significant Impact	Avoided	Avoided	Avoided	Similar	Similar
Noise	Significant and Unavoidable	Avoided	Avoided	Avoided	Reduced	Reduced
Transportation	Significant and Unavoidable	Avoided	Avoided	Reduced	Increased	Increased
Tribal Cultural Resources	Less-than-Significant Impact	Avoided	Similar or Increased	Similar or Increased	Reduced	Reduced
Utilities and Service Systems	Less-than-Significant Impact	Avoided	Reduced	Reduced	Reduced	Reduced
Ability to Meet the Basic Objectives of the Project						
Objective A: To expand economic development, facilitate job creation, and increase the tax base for the City of Chino.		No	No		Yes, but less successfully than the Project	Yes, but less successfully than the Project
Objective B: To establish a new industrial development area adjacent to or near an already-established industrial area.		No	No		Yes	Yes
Objective C: To attract new businesses to the City of Chino and thereby provide a more equal jobs-housing balance in the City of Chino that will reduce the need for members of the local workforce to commute outside the area for employment.		No	No		Yes, but less successfully than the Project	Yes, but less successfully than the Project

Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts

Ability to Meet the Basic Objectives of the Project				
Objective D: To assist the SCAG region in achieving jobs/housing balance region-wide by providing additional job opportunities in a housing rich area of the Inland Empire.	No	No	Yes, but less successfully than the Project	Yes, but less successfully than the Project
Objective E: To develop Class A speculative industrial buildings in Chino that are designed to meet contemporary industry standards and are economically competitive with similar industrial buildings in the local area and region.	No	No	Yes, but less successfully than the Project	No
Objective F: To attract a wide variety of users including those that can expedite the delivery of essential and life-sustaining goods to consumers and businesses in Chino and beyond the City boundary.	No	No	Yes, but less successfully than the Project	Yes, but less successfully than the Project
Objective G: To develop a project with an architectural design and operational characteristics that embrace the historical context of the Chino dairy community, complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.	No	No	No	No
Objective H: To develop a property that has access to available infrastructure, including roads and utilities.	No	No	Yes	Yes
Objective I: To develop industrial buildings in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.	No	No	Yes, but less successfully than the Project	Yes, but less successfully than the Project
Objective J: To provide a viable reuse plan for former factory/commercial dairy property so that the property can again be economically productive.	No	No	Yes	Yes
Objective K: To develop property near the Chino Airport with economically viable land uses that are compatible with the Chino Airport's land use compatibility requirements.	No	No	Yes	Yes
Objective L: To raise planned building footprints out of the Prado Dam Reservoir Area while simultaneously excavating fill soils from other properties in the Prado Dam Reservoir Area, thereby having no net decrease in, and actually increasing, the flood storage capacity and thereby minimizing flood hazards.	No	No	Yes	Yes

7.0 REFERENCES

7.1 PERSONS INVOLVED IN THE PREPARATION OF THIS EIR

7.1.1 CITY OF CHINO DEVELOPMENT SERVICES DEPARTMENT, PLANNING DIVISION

Andrea Gilbert, Senior Planner

7.1.2 T&B PLANNING, INC.

Tracy Zinn, AICP, Principal
B.S. Regional Planning and Geography

David Ornelas, Senior Project Manager
B.A. Urban Studies and Planning

Jerrica Harding, AICP, Senior Associate
B.S. Natural Resources Planning; M.A. Urban and Regional Planning

Lauren Fujimori, Environmental Analyst
B.S. Environmental Systems

Cristina Maxey, GIS/Graphics Specialist
B.S. Environmental Science

7.2 DOCUMENTS INCORPORATED BY REFERENCE IN THIS EIR

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

Chino, City of. 2003. *City of Chino The Preserve Specific Plan Final Environmental Impact Report – Volume 1 SCH #2000121036*. March 25, 2003. Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/the_preserve_. Accessed September 24, 2019.

Chino, City of. 2010a. *City of Chino General Plan*. July 2010. Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/general. Accessed September 4, 2019.

Chino, City of. 2010b. *City of Chino General Plan EIR*. Available on-line at: http://cityofchino.hosted.civiclive.com/city_hall/departments/community_development/planning/plans/general. Accessed September 4, 2019.

Chino, City of. 2013. *City of Chino Climate Action Plan*. November 19, 2013. Available on-line at: http://cityofchino.hosted.civiclive.com/UserFiles/Servers/Server_10382578/File/City%20Hall/Departments/Community%20Development/Final%20Adopted%20%20CAP.pdf. Accessed September 4, 2019.

Chino, City of. 2017a. *City of Chino General Plan Map*. September 18, 2017. Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/General%20Plan%20Map.pdf. Accessed September 16, 2019.

Chino, City of. 2017b. *City of Chino Zoning Map*. March 9, 2017. Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/Zoning%20Map.pdf. Accessed September 16, 2019.

Chino, City of. 2017c. *City of Chino Williamson Act Map*. January 1, 2017. Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/File/Business/Zoning%20&%20Land%20Use/Zoning/Maps/Williamson%20Act%20Map.pdf/. Accessed September 16, 2019.

Chino, City of. 2018. *2015 Urban Water Management Plan*. Revised January 26, 2018. Available on-line at: https://www.cityofchino.org/UserFiles/Servers/Server_10382578/Image/City%20Hall/Departments/Public%20Works/Environmental/2015%20UWMP_final_errata%20012618.pdf. Accessed September 19, 2019.

Chino, City of. 2019. *City of Chino Municipal Code*. June 29, 2019. Available on-line at: https://library.municode.com/ca/chino/codes/code_of_ordinances?nodeId=16002. Accessed September 16, 2019.

Chino Hills, City of. 2015. *City of Chino Hills General Plan*. February 24, 2015. Available on-line at: https://www.chinohills.org/DocumentCenter/View/11275. Accessed October 24, 2019.

Chino Hills, City of. 2019. *City of Hills Municipal Code*. May 30, 2019. Available on-line at: https://library.municode.com/ca/chino_hills/codes/code_of_ordinances. Accessed October 24, 2019.

Eastvale, City of. 2012. *City of Eastvale General Plan*. June 13, 2012. Available on-line at: https://www.eastvaleca.gov/home/showdocument?id=2360. Accessed October 24, 2019.

Eastvale, City of. *City of Eastvale Municipal Code*. March, 25, 2020. Available on-line at: https://library.municode.com/ca/eastvale/codes/code_of_ordinances. Accessed April 2, 2020.

Ontario, City of. 2011. *Ontario International Airport Land Use Compatibility Plan*. February 2011. Available on-line at: http://www.ontarioplan.org/alucp-for-ontario-international-airport//. Accessed September 5, 2019.

7.3 DOCUMENTS AND WEBSITES CONSULTED

Cited As	Reference
ACHP, 2016	Advisory Council on Historic Preservation, 2016. *The National Historic Preservation Act*. December 16, 2016. Available on-line at: https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf. Accessed September 23, 2019.
ALUC, 1991	Airport Land Use Commission, 1991. *Chino Airport Comprehensive Land Use Plan*. November 1991. Available on-line at: http://www.sbcounty.gov/Uploads/lus/Airports/Chino.pdf. Accessed September 5, 2019.
CA Legislative Information, 1999	California Legislative Information, 1999. *Assembly Bill No. 75*. October 7, 1999. Available on-line at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=199920000AB75. Accessed September 18, 2019.
CA Legislative Information, 2000	California Legislative Information, 2000. *California Government Code, Title 5, Division 1, Part 1, Chapter 7, Article 2.5, Agricultural Preserves*. Available on-line at: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=1.&title=5.&part=1.&chapter=7.&article=2.5. Accessed February 5, 2020.
CA Legislative Information, 2001	California Legislative Information, 2001. *Government Code Section 51200-51207*. October 12, 2001. Available on-line at: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=1.&title=5.&part=1.&chapter=7.&article=1./ Accessed September 16, 2019.
CAB, 2019	California Architects Board, 2019. *Essential Services Buildings Seismic Safety Act (ESBSSA)*. Available on-line at: https://www.cab.ca.gov/general_information/esbssa.shtml. Accessed September 17, 2019.
CalFire, 2018	California Department of Forestry and Fire Protection, 2018. *California Fire Hazard Severity Zone Viewer*. Available on-line at: https://gis.data.ca.gov/datasets/CALFIRE-Forestry::california-fire-hazard-severity-zone-viewer. Accessed February 6, 2019.
CalRecycle, 2018a	California Department of Resources Recycling and Recovery, 2018. *History of California Solid Waste Law, 1985-1989*. Available on-line at: https://www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989. Accessed September 18, 2019.
CalRecycle, 2018b	California Department of Resources Recycling and Recovery, 2018. *History of California Solid Waste Law, 1990-1994*. Available on-line at: https://www.calrecycle.ca.gov/Laws/Legislation/calhist/1990to1994. Accessed September 19, 2019.
CalRecycle, 2019a	California Department of Resources Recycling and Recovery, 2019. *Mandatory Commercial Recycling*. Available on-line at: https://www.calrecycle.ca.gov/Recycle/Commercial/. Accessed September 19, 2019.
CalRecycle, 2019b	California Department of Resources Recycling and Recovery, 2019. *Daily Landfilled Tonnage & Total Traffic By Site El Sobrante Nov-2019*. Available on-line at: https://www2.calrecycle.ca.gov/swfacilities/Document/GetDocument/352096. Accessed September 23, 2019.

Cited As	Reference
CalRecycle, 2019c	California Department of Resources Recycling and Recovery, 2019. *Estimated Solid Waste Generation Rates*. Available on-line at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed September 24, 2019.
CalRecycle, 2020	California Department of Resources Recycling and Recovery, 2020. *SWIS Facility Detail El Sobrante Landfill (33-AA-0217)*. Available on-line at https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217. Accessed February 4, 2020.
Caltrans, 2017	California Department of Transportation, 2017. *List of Eligible and Officially Designated State Scenic Highways"* Available on-line at: https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019_a11y.xlsx. Accessed February 6, 2020.
CARB, 2007	California Air Resources Board, 2007. *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. November 16, 2007. Available on-line at: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf. Accessed September 18, 2019.
CARB, 2017	California Air Resources Board, 2017. *Clean Car Standards – Pavley, Assembly Bill 1493*. Available on-line at: https://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed September 17, 2019.
CARB, 2019a	California Air Resources Board, 2019. *Air Quality and Transportation Planning*. Available on-line at: https://ww3.arb.ca.gov/planning/planning.htm. Accessed September 16, 2019.
CARB, 2019b	California Air Resources Board, 2019. *Truck and Bus Regulation Reporting*. Available on-line at: https://ww3.arb.ca.gov/msprog/onrdiesel/reportinginfo.htm. Accessed September 16, 2019.
CARB, 2019c	California Air Resources Board, 2019. *Advanced Clean Cars Program*. Available on-line at: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about. Accessed September 17, 2019.
CARB, 2019d	California Air Resources Board, 2019. *Assembly Bill 32 Overview*. Available on-line at: https://ww3.arb.ca.gov/cc/ab32/ab32.htm. Accessed September 18, 2019.
CARB, 2019e	California Air Resources Board, 2019. *Sustainable Communities & Climate Protection Program*. Available on-line at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about. Accessed September 18, 2019.
CBSC, 2019	California Building Standards Code, 2019. *2019 California Building Code California Code of Regulations Title 24, Part 2, Volume 2 of 2*. July 2019. Available on-line at: https://codes.iccsafe.org/content/CABCV22019. Accessed September 17, 2019.
CBWM, 2019a	Chino Basin Watermaster, 2019. *2018 State of the Basin Report*. Available on-line at: http://www.cbwm.org/docs/engdocs/State_of_the_Basin_Reports/SOB%202018/2018%20State%20of%20the%20Basin%20Report.pdf. Accessed October 29, 2019.
CBWM, 2019b	Chino Basin Watermaster, 2019. *Chino Basin Overview*. Available on-line at: http://www.cbwm.org/overview.htm. Accessed November 22, 2019.

Cited As	Reference
CCC, n.d.	California Climate Change. *California Climate Change Executive Orders*. Available on-line at: https://www.climatechange.ca.gov/state/executive_orders.html. Accessed September 18, 2019.
CCC, n.d.	California Climate Change. *California Climate Change Legislation*. Available on-line at: https://www.climatechange.ca.gov/state/legislation.html. Accessed September 18, 2019.
CCCC, 2006	California Climate Change Center, 2006. *Scenarios of Climate Change in California: An Overview*. Available on-line at: https://ww2.energy.ca.gov/2005publications/CEC-500-2005-186/CEC-500-2005-186-SF.PDF. Accessed September 18, 2019.
CDC, 1997	California Department of Conservation, 1997. *California Agricultural Land Evaluation and Site Assessment Model*. Available on-line at: https://www.conservation.ca.gov/dlrp/Documents/lesamodl.pdf. Accessed September 16, 2019.
CDC, 2004	California Department of Conservation, 2004. *A Guide to the Farmland Mapping and Monitoring Program*. Available on-line at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp_guide_2004.pdf. Accessed September 16, 2019.
CDC, 2014	California Department of Conservation, 2014. *California Farmland Conversion Report 2008-2010*. April 2014. Available on-line at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2008-2010/fcr/FCR%200810%20complete.pdf. Accessed September 16, 2019.
CDC, 2015	California Department of Conservation, 2015. *California Farmland Conversion Report 2015*. Available on-line at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf. Accessed September 16, 2019.
CDC, 2018	California Department of Conservation, 2018. *Orange County Flood Control District Land Acquisition of Williamson Act Contract Land (Contract #72-386) for the Prado Dam Project, APN # 1027-371-01, 1056-331-01, and 1056-331-02*. December 6, 2018.
CDC, 2019a	California Department of Conservation, 2019. *Williamson Act Program Overview*. Available on-line at: https://www.conservation.ca.gov/dlrp/wa/Pages/wa_overview.aspx. Accessed September 16, 2019.
CDC, 2019b	California Department of Conservation, 2019. *Alquist-Priolo Earthquake Fault Zones*. Available on-line at: https://www.conservation.ca.gov/cgs/alquist-priolo. Accessed September 17, 2019.
CDC, 2019c	California Department of Conservation, 2019. *Seismic Hazards Mapping Act*. Available on-line at: https://www.conservation.ca.gov/cgs/shma. Accessed September 17, 2019.
CDC, n.d.	California Department of Conservation. *California Important Farmland Finder*. Available on-line at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed September 16, 2019.
CDFW, 2019a	California Department of Fish and Wildlife, 2019. *Lake and Streambed Alteration Program*. Available on-line at: https://www.wildlife.ca.gov/conservation/lsa. Accessed September 24, 2019.

Cited As	Reference
CDFW, 2019b	California Department of Fish and Wildlife, 2019. *California Endangered Species Act (CESA) Permits*. Available on-line at: https://www.wildlife.ca.gov/Conservation/CESA. Accessed September 27, 2019.
CDFW, 2019c	California Department of Fish and Wildlife, 2019. *Natural Community Conservation Planning (NCCP)*. Available on-line at: https://www.wildlife.ca.gov/conservation/planning/nccp. Accessed September 27, 2019.
CDFW, 2019d	California Department of Fish and Wildlife, 2019. *California Laws Protecting Native Plants*. Available on-line at: https://www.wildlife.ca.gov/Conservation/Plants/Laws. Accessed September 27, 2019.
CEC, 2019	California Energy Commission, 2019. *Emission Performance Standards – SB 1368*. Available on-line at: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/emission-performance-standards-sb-1368. Accessed September 18, 2019.
CGS, 2019	California Geological Survey, 2019. *Earthquake Zones of Required Investigation*. April 4, 2019. Available on-line at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed December 30, 2019.
Chang, 2011	Chang & Adams Consulting, 2011. *Assessing the Economic and Market Trends Affecting Agriculture in the Western Inland Empire*. September 2011.
CNRA, 2009	California Natural Resources Agency, 2009. *2009 California Climate Adaptation Strategy*. Available on-line at: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed September 18, 2019.
CPUC, 2019	California Public Utilities Commission, 2019. *Renewables Portfolio Standard (RPS) Program*. Available on-line at: http://cpuc.ca.gov/rps/. Accessed September 17, 2019.
County of San Bernardino, 2018	County of San Bernardino, 2018. *Countywide Summary Plan Countywide Integrated Waste Management Plan*. April 2018. Available on-line at: http://cms.sbcounty.gov/Portals/50/solidwaste/SWAT/Engineering/SB-County-Final-Draft-Summary-Plan-SP-for-SWAT-07-2018r.pdf?ver=2018-07-10-135812-593. Accessed September 24, 2019.
DTSC, 2019	Department of Toxic Substances Control, 2019. *Hazardous Waste and Substances Site List (Cortese)*. Available on-line at: http://www.envirostor.dtsc.ca.gov/public/search.asp?PAGE=9&CMD=search&ocieerp=&business_name=&main_street_number=&main_street_name=&city=&zip=&county=&branch=&status=ACT%2CBKLG%2CCOM%2CCOLUR&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&cleanup_type=&npl=&funding=&reporttype=CORTESE&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&display_results=&pub=&hwmp=False&permitted=&pc_permitted=&inspections=&complaints=&censustract=&cesdecile=&ORDERBY=county&next=Next+50. Accessed September 5, 2019.

Cited As	Reference
DWR, 2003	Department of Water Resources, 2003. *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001*. Available on-line at: https://water.ca.gov/LegacyFiles/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf. Accessed September 19, 2019.
DWR, 2016	Department of Water Resources, 2016. *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*. March 2016. Available on-line at: https://water.ca.gov/LegacyFiles/urbanwatermanagement/docs/2015/UWMP_Guidebook_Mar_2016_FINAL.pdf. Accessed September 19, 2019.
DWR, 2017	Department of Water Resources, 2017. *Making Water Conservation a California Way of Life*. April 2017. Available on-line at: https://water.ca.gov/LegacyFiles/wateruseefficiency/conservation/docs/20170407_EO_B-37-16_Final_Report.pdf. Accessed September 19, 2019.
DWR, 2019	Department of Water Resources, 2019. *Daily Landfilled Tonnage & Total Traffic By Site*. July 2019. Available on-line at: https://www2.calrecycle.ca.gov/swfacilities/Document/GetDocument/347296. Accessed September 23, 2019.
EDD, 2020	Employment Development Department, 2020. *Riverside-San Bernardino-Ontario Metropolitan Statistical Area (MSA) (Riverside and San Benardino Counties)*. January 24, 2020. Available on-line at: https://www.labormarketinfo.edd.ca.gov/file/lfmonth/rive$pds.pdf. Accessed February 6, 2020.
EPA, 2005	Environmental Protection Agency, 2005. *Protecting Water Quality from Agricultural Runoff*. March 2005.
EPA, 2009	Environmental Protection Agency, 2009. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. March 2009. Available on-line at: https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf. Accessed September 24, 2019.
EPA, 2017a	Environmental Protection Agency, 2017. *Summary of the Occupational Safety and Health Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-occupational-safety-and-health-act. Accessed September 4, 2019.
EPA, 2017b	Environmental Protection Agency, 2017. *1990 Clean Air Act Amendment Summary: Title I*. Available on-line at: https://www.epa.gov/laws-regulations/summary-clean-air-act. Accessed September 16, 2019.
EPA, 2017c	Environmental Protection Agency, 2017. *1990 Clean Air Act Amendment Summary: Title II*. Available on-line at: https://www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary-title-ii. Accessed September 16, 2019.
EPA, 2017d	Environmental Protection Agency, 2017. *Learn About SmartWay*. Available on-line at: https://www.epa.gov/smartway/learn-about-smartway. Accessed September 16, 2019.
EPA, 2017e	Environmental Protection Agency, 2017. *Summary of the Noise Control Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-noise-control-act. Accessed September 30, 2019.

Cited As	Reference
EPA, 2018	Environmental Protection Agency, 2018. *Summary of the Toxic Substances Control Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act. Accessed September 4, 2019.
EPA, 2019a	Environmental Protection Agency, 2019. *Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)*. Available on-line at: https://www.epa.gov/laws-regulations/summary-comprehensive-environmental-response-compensation-and-liability-act. Accessed September 4, 2019.
EPA, 2019b	Environmental Protection Agency, 2019. *Summary of the Resource Conservation and Recovery Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act. Accessed September 4, 2019.
EPA, 2019c	Environmental Protection Agency, 2019. *Summary of the Clean Air Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-clean-air-act. Accessed September 16, 2019.
EPA, 2019d	Environmental Protection Agency, 2019. *Summary of the Clean Water Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-clean-water-act. Accessed September 17, 2019.
EPA, 2019e	Environmental Protection Agency, 2019. *Summary of the Safe Drinking Water Act*. Available on-line at: https://www.epa.gov/laws-regulations/summary-safe-drinking-water-act. Accessed September 19, 2019.
EPA, 2019f	Environmental Protection Agency, 2019. *Clean Water Act Section 401: State Certification of Water Quality*. Available on-line at: https://www.epa.gov/cwa-401/clean-water-act-section-401-state-certification-water-quality. Accessed October 8, 2019.
EPA, 2019g	Environmental Protection Agency, 2019. *Permit Program Under CWA Section 404*. Available on-line at: https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404. Accessed October 8, 2019.
EPA, 2020	Environmental Protection Agency, 2020. *Sources of Greenhouse Gas Emissions, Agricultural Sector Emissions.* Available online at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture. Accessed April 15, 2020.
FAA, 2019	Federal Aviation Administration, 2019. *Notification of Proposed Construction or Alteration on Airport Part 77*. Available on-line at: https://www.faa.gov/airports/central/engineering/part77/#NewRule. Accessed September 5, 2019.
FEMA, 2008	Federal Emergency Management Agency, 2008. *FEMA FIRM No. 06071C9335H*. August 28, 2008. Available on-line at: https://msc.fema.gov/portal/home. Accessed November 22, 2019.
FEMA, 2019	Federal Emergency Management Agency, 2019. *Executive Order 11990, Protection of Wetlands, 1977*. Available on-line at: https://www.fema.gov/executive-order-11990-protection-wetlands-1977. Accessed October 8, 2019.
FTA, 2006	Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment*. May 2006. Available on-line at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed September 30, 2019.

Cited As	Reference
Google Earth Pro, 2019	Google Earth Pro, 2019. Multiple Dates. Version 7.1.2.2041. Computer Software.
IEUA, 2019	Inland Empire Utilities Agency, 2019. *Regional Water Recycling Plant No. 5.* Available on-line at: https://www.ieua.org/facilities/rp-5/. Accessed September 23, 2019.
NPS, 2016	National Park Service, 2016. *The Native American Graves Protection and Repatriation Act*. Available on-line at: https://www.nps.gov/archeology/tools/laws/nagpra.htm. Accessed September 23, 2019.
NPS, n.d.	National Park Service. *National Register of Historic Places*. Available on-line at: https://www.nps.gov/subjects/nationalregister/how-to-list-a-property.htm Accessed September 23, 2019.
OHP, 2019	Office of Historic Preservation, 2019. *California Register of Historical Resources*. Available on-line at: http://ohp.parks.ca.gov/?page_id=21238. Accessed September 23, 2019.
OPR, 2005	Office of Planning and Research, 2005. *Tribal Consultation Guidelines Supplement to General Plan Guidelines*. April 15, 2005. Available on-line at: https://www.parks.ca.gov/pages/22491/files/tribal_consultation_guidelines_vol-4.pdf. Accessed September 25, 2019.
OPR, 2007	Office of Planning and Research, 2007. *Senate Bill No. 97*. August 24, 2007. Available on-line at: http://opr.ca.gov/docs/SB_97_bill_20070824_chaptered.pdf. Accessed September 18, 2019.
OPR, 2017a	Office of Planning and Research, 2017. *Technical Advisory AB 52 and Tribal Cultural Resources in CEQA*. June 2017. Available on-line at: http://nahc.ca.gov/wp-content/uploads/2017/06/Technical-Advisory-AB-52-and-Tribal-Cultural-Resources-in-CEQA.pdf. Accessed September 25, 2019.
OPR, 2017b	Office of Planning and Research, 2017. *State of California 2017 General Plan Guidelines*. Available on-line at: http://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf. Accessed September 30, 2019.
OSHA, n.d.	Occupational Safety and Health Administration. *Transporting Hazardous Materials*. Available on-line at: https://www.osha.gov/SLTC/trucking_industry/transportinghazardousmaterials.html. Accessed September 5, 2019.
RCALUC, 2008	Riverside County Airport Land Use Compatibility, 2008. *Individual Airport Policies and Compatibility Maps – Chino Airport*. Available on-line at: http://www.sbcounty.gov/Uploads/lus/Airports/Chino.pdf. Accessed September 5, 2019.
SANBAG, 2016	San Bernardino Associated Governments, 2016. *San Bernardino County Congestion Management Program*. June 2016. Available on-line at: https://www.gosbcta.com/wp-content/uploads/2019/10/2016-Congestion-Management-Plan-.pdf. Accessed October 10, 2019.
SARWQCB, 2010	Santa Ana Regional Water Quality Control Board, 2010. *Order No. R8-2010-0036 NPDEA No. CAS618036*. January 29, 2010. Available on-line at: https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2010/10_

Cited As	Reference
	036_SBC_MS4_Permit_01_29_10.pdf. Accessed January 20, 2020.
SAWPA, 2018	Santa Ana Watershed Project Authority, 2018. *One Water One Watershed Plan Update 2018*. January 2019. Available on-line at: https://www.ocwd.com/media/7970/wic07aone-water-one-watershed-plan-update.pdf. Accessed October 29, 2019.
SBCDA, 2012	San Bernardino County Department of Agriculture, 2012. *Annual Crop Report 2012*. Available on-line at: http://cms.sbcounty.gov/Portals/13/CropReports/2012%20crop%20%20livestock.pdf?ver=2013-05-04-153314-427. Accessed November 20, 2019.
SBCDA, 2017	San Bernardino County Department of Agriculture, 2017. *Annual Crop Report 2017*. Available on-line at: http://cms.sbcounty.gov/Portals/13/CropReports/2017CropReport.pdf?ver=2018-12-11-094949-193. Accessed September 16, 2019.
SCAG, 2016	Southern California Association of Governments, 2016. *The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy*. April 2016. Available on-line at: http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf. Accessed September 30, 2019.
SCAG, 2019a	Southern California Association of Governments, 2019. *About SCAG*. Available on-line at: https://www.scag.ca.gov/about/Pages/Home.aspx. Accessed December 2, 2019.
SCAG, 2019b	Southern California Association of Governments, 2019. *Draft Demographics and Growth Forecast Technical Report*. Available on-line at: https://www.connectsocal.org/Documents/Draft/dConnectSoCal_Demographics-And-Growth-Forecast.pdf. Accessed December 2, 2019.
SCAG, 2019c	Southern California Association of Governments, 2019. *Draft Goods Movement Technical Report*. Available on-line at: https://www.connectsocal.org/Documents/Draft/dConnectSoCal_Goods-Movement.pdf. Accessed December 2, 2019.
SCAQMD, 1976	South Coast Air Quality Management District, 1976. *Rule 402 Nuisance*. Adopted May 7, 1976. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf. Accessed November 18, 2019.
SCAQMD, 2000	South Coast Air Quality Management District, 2000. *Rule 431.2 Sulfur Content of Liquid Fuels*. Available on-line at: https://ww3.arb.ca.gov/drdb/sc/curhtml/r431-2.pdf. Accessed December 31, 2019.
SCAQMD, 2004	South Coast Air Quality Management District, 2004. *Rule 201 Permit to Construct*. Amended December 3, 2004. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-201.pdf. Accessed December 31, 2019.
SCAQMD, 2005	South Coast Air Quality Management District, 2005. *Rule 403 Fugitive Dust*. Amended June 3, 2005. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf. Accessed November 18, 2019.
SCAQMD, 2007	South Coast Air Quality Management District, 2007. *Rule 1403 Asbestos Emissions from Demolition/Renovation Activities*. Amended October 5, 2007. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1403.pdf. Accessed

Cited As	Reference
	December 31, 2019.
SCAQMD, 2008	South Coast Air Quality Management District, 2008. *Rule 1186 PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations*. Amended July 11, 2008. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1186.pdf. Accessed December 31, 2019.
SCAQMD, 2016	South Coast Air Quality Management District, 2016. *Rule 1113 Architectural Coatings*. Amended February 5, 2016. Available on-line at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf. Accessed November 18, 2019.
SCAQMD, 2017	South Coast Air Quality Management District, 2019. *Final 2016 Air Quality Management Plan*. March 2017. Available on-line at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15. Accessed September 30, 2019.
SCAQMD, 2019	South Coast Air Quality Management District, 2019. *Regulations*. Available on-line at: http://www.aqmd.gov/home/rules-compliance/regulations#. Accessed September 16, 2019.
Southern California Earthquake Center, 1999	Southern California Earthquake Center, 1999. *Guidelines for Analyzing and Mitigating Liquefaction Hazards in California*. March 1999. Available on-line at: https://www.tugraz.at/fileadmin/user_upload/Institute/IAG/Files/33_Liquefaction_Mitigation-DMG_SP117.pdf. Accessed September 19, 2019.
SWRCB, 2014a	State Water Resources Control Board, 2014. *Federal, State and Local Laws, Policy and Regulations*. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.html Accessed September 19, 2019.
SWRCB, 2016b	State Water Resources Control Board, 2014. *General Permit for Storm Water Discharges Associated with Industrial Activities Order NPDES No. CAS000001*. April 1, 2014. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/order.pdf. Accessed April 22, 2020.
SWRCB, 2016	State Water Resources Control Board, 2016. *A Compilation of Water Quality Goals 17th Edition*. January 2016. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/docs/wq_goals_text.pdf. Accessed September 19, 2019.
SWRCB, 2017	State Water Resources Control Board, 2017. *Watershed Management*. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/watershed/. Accessed September 24, 2019.
SWRCB, 2018	State Water Resources Control Board, 2018. *2018 Industrial Storm Water General Permit Amendment*. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/igp_factsheet_final.pdf. Accessed January 20, 2020.

Cited As	Reference
SWRCB, 2020	State Water Resources Control Board, 2020. *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities Order NPDES No. CAS000001*. Available on-line at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/order.pdf. Accessed January 20, 2020.
University of California, 1978	University of California, 1978. *Storie Index Soil Rating*. Revised December 1978. Available on-line at: http://anrcatalog.ucdavis.edu/pdf/3203.pdf. Accessed September 16, 2019.
UNFCCC, n.d.	United Nations Framework Convention on Climate Change. *Kyoto Protocol – Targets for the first commitment period*. Available on-line at: https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol/kyoto-protocol-targets-for-the-first-commitment-period. Accessed September 18, 2019.
UNFCCC, n.d.	United Nations Framework Convention on Climate Change. *The Paris Agreement*. Available on-line at: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement. Accessed September 18, 2019.
USACE, 2019a	U.S. Army Corps of Engineers, 2019a. *Prado Dam*. Available on-line at: https://www.spl.usace.army.mil/Missions/Asset-Management/Prado-Dam/. Accessed January 20, 2020.
USACE, 2019b	U.S. Army of Corps of Engineers, 2019b. *Section 408*. Available on-line at: https://www.usace.army.mil/Missions/Civil-Works/Section408/. Accessed January 20, 2020.
USDA, 1961	United States Department of Agriculture. *Land-Capability Classification Agriculture Handbook No. 210*. October 13, 1961. Available on-line at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf. Accessed December 30, 2019.
USDA, n.d.	United States Department of Agriculture. *Websoil Survey*. Available on-line at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed September 16, 2019.
USFWS, 2013	U.S. Fish and Wildlife Service, 2013. *ESA Basics*. Available on-line at: https://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf. Accessed September 27, 2019.
USFWS, 2015	U.S. Fish and Wildlife Service, 2015. *Bald & Golden Eagle Information*. Available on-line at: https://www.fws.gov/birds/management/managed-species/bald-and-golden-eagle-information.php. Accessed September 27, 2019.
USFWS, 2018	U.S. Fish and Wildlife Service, 2018. *Migratory Bird Treaty Act*. Available on-line at: https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php. Accessed September 27, 2019.

7.4 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Majestic Chino Heritage EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Chino Community Development Department, Planning Division at 13220 Central Avenue Chino, CA 91710.

Appendix A: Initial Study for Majestic Chino Heritage, Notice of Preparation, and Written Comments

Appendix B1: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Air Quality Impact Analysis*. November 6, 2019.

Appendix B2: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Construction and Mobile Source Health Risk Assessment*. November 6, 2019.

Appendix B3: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Supplemental Air Quality Assessment*. November 6, 2019.

Appendix B4: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Supplemental AQ, GHG, HRA, & EA Based on EMFAC2017 Emission Rates*. November 6, 2019.

Appendix C: Glenn Lukos Associates, Inc., 2019. *Biological Technical Report for Majestic Chino Heritage Project*. Revised November 6, 2019.

Appendix D: Brian F. Smith and Associates Inc., 2019. *A Cultural Resources Study for the Majestic Chino Heritage Project*. September 11, 2019.

Appendix E: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Energy Analysis*. November 6, 2019.

Appendix F1: Koury Engineering & Testing, Inc., 2019. *Construction Level Geotechnical Study Majestic Chino Logistic Center Southeast Corner of Bickmore Avenue and Mountain Avenue*. Revised February 14, 2019.

Appendix F2: Koury Engineering & Testing, Inc., 2017. *Borrow Site Geotechnical Study, Phase I OC Prado – Borrow Site Southeast Corner of Pine Avenue and Euclid Avenue Chino, California*. April 24, 2017.

Appendix F3: Koury Engineering & Testing, Inc., 2017. *Feasibility Study, Proposed East Borrow Site Southeast Corner of Pine Avenue & Johnson Avenue City of Chino, CA.* June 26, 2017.

Appendix F4: Koury Engineering & Testing, Inc., 2018. *Limited Borrow Site Study Borrow Site No. 3 (Excess Fill Dirt Site No. 3) Cucamonga Avenue and West County Road City of Chino, CA.* Revised July 22, 2018.

Appendix F5: Koury Engineering & Testing, Inc., 2018. *Limited Borrow Site Feasibility Study Alternative Borrow Site 6 SEC of East County Road and Chino Corona Road City of Chino, California*. March 16, 2018.

Appendix F6: Koury Engineering & Testing, Inc., 2019. *Limited Borrow Site Feasibility Study Alternative Borrow Site 5 Southwest Corner of Hereford Drive and Hellman Avenue City of Chino, California*. April 16, 2019.

Appendix G: Brian F. Smith and Associates, Inc., 2019. *Paleontological Resource and Monitoring Assessment for the Proposed Majestic Chino Heritage Project.* September 10, 2019.

Appendix H: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Greenhouse Gas Analysis*. November 6, 2019.

Appendix I1: SCS Engineers, 2018. *Phase I Environmental Site Assessment 95 Acre Project Site at the SEC of Mountain and Bickmore Avenues (16195, 16311, and 16451 Mountain Avenue), Chino, California 91708*. November 2018.

Appendix I2: SCS Engineers, 2018. *Phase I Environmental Site Assessment Excess Fill Dirt Site #1 – 47.4 Acres Southwest Corner of Pine and Johnson Avenues Chino, California 91708*. November 2018.

Appendix I3: SCS Engineers, 2018. *Phase I Environmental Site Assessment Excess Fill Dirt Site #2 – 40.8 Acres Southeast Corner of Pine and Johnson Avenues Chino, California 91708*. November 2018.

Appendix I4: SCS Engineers, 2018. *Phase I Environmental Site Assessment Excess Fill Dirt Site #3 – 49.6 Acres 16990-17190 Cucamonga Avenue, Chino, California 91708*. November 2018.

Appendix I5: SCS Engineers, 2018. *Phase I Environmental Site Assessment Excess Fill Dirt Site #6 – 13.9 Acres 8403 Chino Corona Road, Chino, California 91710*. November 2018.

Appendix I6: SCS Engineers, 2019. *Phase I Environmental Site Assessment – Majestic Heritage Site #5*. March 2019.

Appendix I7: SCS Engineers, 2019. *Soil Sampling and Laboratory Analyses Summary Report for Proposed Chino Development and Five Soil Borrow Sites in the Area of Prado Regional Park, San Bernardino County, California*. July 8, 2019.

Appendix J1: PBLA Engineering, Inc., 2019. *Preliminary Hydrology Study Majestic Chino Heritage Buildings 1 and 2*. March, 2019.

Appendix J2: PBLA Engineering, Inc., 2019. *Post Construction Hydrology – Majestic Chino Heritage Borrow Sites Memo*. November 2, 2019.

Appendix K: PBLA Engineering, Inc., 2020. *Preliminary Water Quality Management Plan for Majestic Chino Heritage*. January 28, 2020.

Appendix L: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Noise Impact Analysis*. April 23, 2020.

Appendix M1: Urban Crossroads, Inc., 2019. *Majestic Chino Heritage Traffic Impact Analysis*. November 6, 2019.

Appendix M2: Urban Crossroads, Inc. 2020. *Majestic Chino Heritage Truck Route Memorandum*. March 31, 2020.

Appendix N: Charles Marr Consulting, 2019. *Water Supply Assessment for Majestic Chino Heritage*. March 13, 2019.