

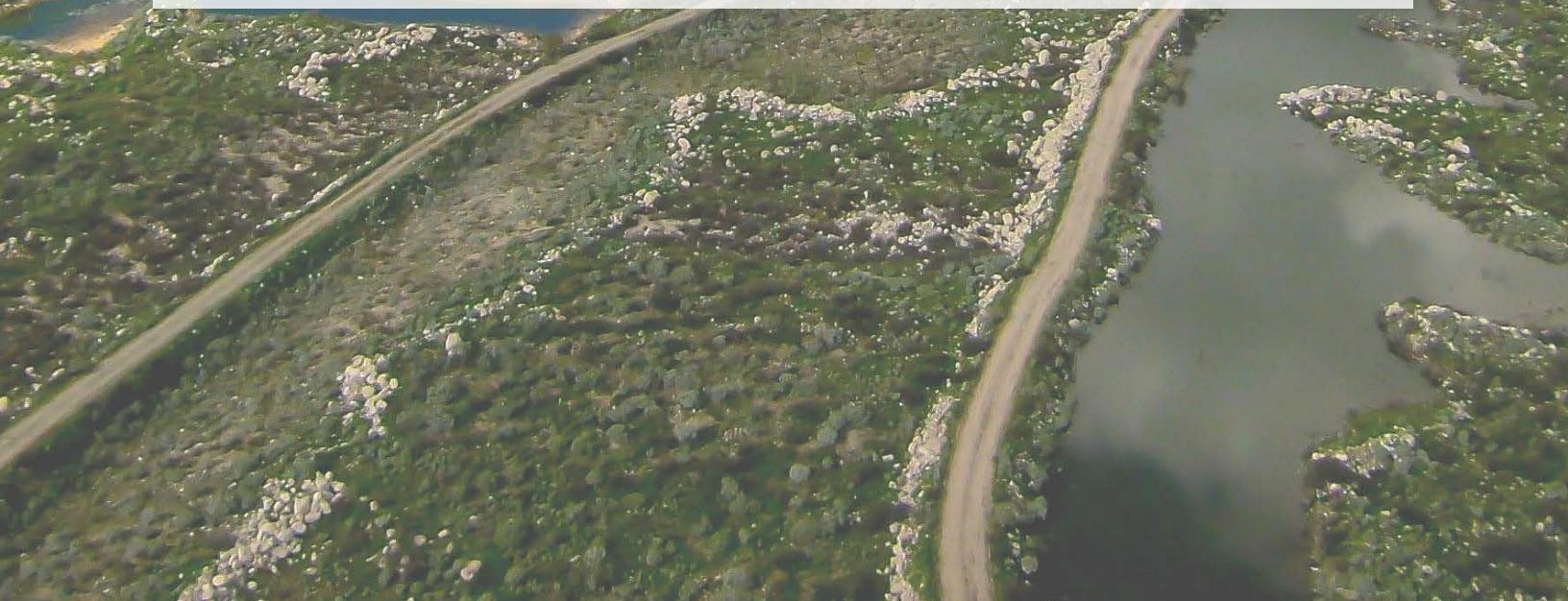
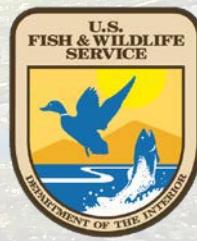
**Draft Environmental Impact Statement/Supplemental Environmental Impact Report
Proposed Habitat Conservation Plan and Section 10 Permit
for the
Upper Santa Ana River Wash Plan**

U.S Fish and Wildlife Service
Pacific Southwest Region
Carlsbad Fish and Wildlife Office

SBVWCD SCH No. 2015031022 SEIR

Estimated EIS Preparation Costs:
\$708,000

December 2019



**United States Fish and Wildlife Service and
San Bernardino Valley Water Conservation District**

**Draft Environmental Impact Statement/Supplemental Environmental Impact Report
Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa
Ana River Wash Plan**

**DOI-USFWS DEIS
SBVWCD SCH No. 2015031022 SEIR**

Prepared for:
San Bernardino Valley Water Conservation District
1630 W Redlands Blvd, Suite A
Redlands, California 92373
(909) 793-2503

Prepared by:
Ruth Villalobos & Associates, Inc.
3602 Inland Empire Blvd, Suite C310, Ontario, 91764
(909) 245-1127

ELMT Consulting
2201 N Grand Ave, #10098, Santa Ana, 92711
(909) 816-1646

Michael Baker International
3536 Concours St #100, Ontario, CA 91764
(909) 974-4900

December 2019



This page intentionally left blank.

COVER SHEET

Proposed Action: Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan

Type of Statement: Draft EIS/SEIR (Environmental Impact Statement/Supplemental Impact Report)

Lead agencies: U.S. Fish and Wildlife Service (NEPA)
San Bernardino Valley Water Conservation District
(CEQA) SBVWCD SCH No. 2015031022 SEIR

Cooperating Agencies: Federal-
U.S. Bureau of Land Management

For further information and send comments to: Karin Cleary-Rose
U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Service Office
777 E. Tahquitz Canyon Way
Suite 208
Palm Springs, CA 92262
Phone: (760) 322-2070

Abstract:

This EIS evaluates the environmental consequences of issuing an incidental take permit for the Coastal California gnatcatcher, San Bernardino kangaroo rat, Cactus wren, Santa Ana River woolly-star, and Slender-horned spineflower (collectively the "Covered Species") under the federal Endangered Species Act within County of San Bernardino California, Upper Santa Ana River Wash, where the Proposed Projects by the San Bernardino Valley Water Conservation District (Conservation District) and other local lead agencies are evaluated in this DEIS/SEIR pursuant to NEPA and CEQA. Covered Activities are activities that may result in take of listed species that are mitigated through implementation of the HCP. Covered Activities include construction and/or operation and maintenance of land or facilities associated with the following: Aggregate Mining; Water Conservation; Wells and Water Infrastructure; Transportation; Flood Control; Trails; Habitat Enhancement; and Agriculture.

This page intentionally left blank.

TABLE OF CONTENTS

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	ES-1
INTRODUCTION	ES-1
PURPOSE AND NEED	ES-2
PROPOSED ACTION AND ALTERNATIVES.....	ES-2
PROJECT SCOPING	ES-4
SUMMARY OF IMPACTS	ES-5
1.0 INTRODUCTION.....	1.0-1
1.1 PROJECT SETTING.....	1.0-2
1.1.1 HCP PRESERVE.....	1.0-4
1.1.2 COVERED ACTIVITIES.....	1.0-4
1.1.3 OTHER AREAS WITHIN THE PLAN AREA BOUNDARY.....	1.0-4
1.2 HISTORY OF THE PROPOSED ACTION	1.0-5
1.3 PURPOSE.....	1.0-5
1.4 NEED.....	1.0-5
1.5 CEQA OBJECTIVES.....	1.0-6
1.6 DEIS/SEIR PROCESS	1.0-6
1.7 DECISION FRAMEWORK.....	1.0-9
1.7.1 PUBLIC SCOPING.....	1.0-9
1.7.2 PLANNING ISSUES.....	1.0-9
1.8 RELATIONSHIP TO OTHER POLICIES, PROGRAMS, AND PLANS	1.0-13
1.9 COMPLIANCE WITH RELEVANT FEDERAL AND STATE LAWS.....	1.0-14
2.0 PROPOSED ACTION AND ALTERNATIVES	2.0-1
2.1 INTRODUCTION.....	2.0-1
2.2 ALTERNATIVE A: NO ACTION ALTERNATIVE	2.0-1
2.3 ALTERNATIVE B: PROPOSED ACTION	2.0-2
2.4 ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	2.0-10
2.5 ALTERNATIVES CONSIDERED BUT REJECTED	2.0-14
2.5.1 COMPLETE AVOIDANCE OF TAKE.....	2.0-14
2.5.2 NO ADVERSE IMPACTS TO SLENDER-HORNED SPINEFLOWER.....	2.0-14
3.0 ENVIRONMENTAL SETTING.....	3.1-1
3.1 AIR QUALITY.....	3.1-1
3.1.1 REGULATORY SETTING	3.1-1
3.1.1.1 FEDERAL.....	3.1-1
3.1.2 ENVIRONMENTAL SETTING	3.1-4
3.1.2.1 REGIONAL AIR QUALITY	3.1-4
3.1.2.2 LOCAL AIR QUALITY.....	3.1-4
3.1.2.3 TOXIC AIR CONTAMINANTS	3.1-5
3.1.3 GLOBAL CLIMATE CHANGE	3.1-6
3.1.4 EXISTING EMISSION SOURCES.....	3.1-6
3.2 GEOLOGY AND MINERAL RESOURCES.....	3.2-1

TABLE OF CONTENTS

3.2.1	REGULATORY SETTING	3.2-1
3.2.2	ENVIRONMENTAL SETTING	3.2-1
3.2.2.1	GEOLOGIC SETTING	3.2-1
3.2.2.2	SEISMIC SETTING	3.2-1
3.2.2.3	GEOLOGIC AND SEISMIC HAZARDS	3.2-2
3.2.2.4	MINERAL RESOURCES.....	3.2-5
3.3	HYDROLOGY AND WATER QUALITY	3.3-1
3.3.1	REGULATORY SETTING	3.3-1
3.3.1.1	WATERS OF THE US/STATE.....	3.3-1
3.3.2	ENVIRONMENTAL SETTING	3.3-1
3.3.2.1	SURFACE WATER.....	3.3-1
3.3.2.2	EXISTING FLOOD CONDITIONS.....	3.3-2
3.3.2.3	SURFACE WATER QUALITY.....	3.3-3
3.3.2.4	GROUNDWATER QUALITY AND MANAGEMENT.....	3.3-7
3.4	BIOLOGICAL RESOURCES.....	3.4-1
3.4.1	REGULATORY SETTING	3.4-1
3.4.2	VEGETATION COMMUNITIES AND LAND COVER TYPES.....	3.4-1
3.4.3	GENERAL WILDLIFE	3.4-2
3.4.4	CALIFORNIA SPECIAL STATUS PLANT SPECIES	3.4-2
3.4.5	SPECIAL STATUS WILDLIFE SPECIES	3.4-8
3.4.5.1	HCP COVERED SPECIES.....	3.4-15
3.4.6	WILDLIFE CORRIDORS	3.4-15
3.5	LAND USE	3.5-1
3.5.1	REGULATORY SETTING	3.5-1
3.5.2	ENVIRONMENTAL SETTING – EXISTING USE	3.5-1
3.5.2.1	MINING.....	3.5-1
3.5.2.2	FLOOD CONTROL.....	3.5-1
3.5.2.3	HABITAT CONSERVATION.....	3.5-1
3.5.2.4	WATER CONSERVATION.....	3.5-1
3.5.2.5	AIRPORTS	3.5-2
3.5.2.6	PUBLIC LANDS.....	3.5-2
3.6	SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE.....	3.6-1
3.6.1	REGULATORY SETTING	3.6-1
3.6.2	REGIONAL SETTING	3.6-1
3.6.3	ENVIRONMENTAL SETTING	3.6-1
3.6.3.1	DEMOGRAPHIC CHARACTERISTICS.....	3.6-1
3.6.3.2	ECONOMIC CHARACTERISTICS.....	3.6-5
3.7	TRANSPORTATION SYSTEMS AND TRAFFIC.....	3.7-1
3.7.1	REGULATORY SETTING	3.7-1
3.7.2	ENVIRONMENTAL SETTING	3.7-1
3.7.2.1	EXISTING ROADWAYS AND HIGHWAYS.....	3.7-1
3.8	VISUAL RESOURCES.....	3.8-1
3.8.1	REGULATORY SETTING	3.8-1

TABLE OF CONTENTS

3.8.2	REGIONAL SETTING	3.8-1
3.8.3	METHODOLOGY.....	3.8-2
3.8.3.1	VISUAL RESOURCE MANAGEMENT (VRM) METHODOLOGY.....	3.8-2
3.9	CULTURAL RESOURCES	3.9-1
3.9.1	REGULATORY SETTING	3.9-1
3.9.2	ENVIRONMENTAL SETTING	3.9-1
3.9.2.1	LOCAL SEQUENCE	3.9-1
3.9.2.2	PRE-HISTORIC RESOURCES	3.9-2
3.9.2.3	HISTORIC RESOURCES.....	3.9-2
3.9.2.4	PALEONTOLOGICAL RESOURCES	3.9-6
3.10	NOISE.....	3.10-1
3.10.1	REGULATORY SETTING	3.10-1
3.10.2	ENVIRONMENTAL SETTING	3.10-1
3.10.2.1	EXISTING NOISE ENVIRONMENT.....	3.10-1
3.11	HAZARDS	3.11-1
3.11.1	REGULATORY SETTING	3.11-1
3.11.2	ENVIRONMENTAL SETTING	3.11-1
3.11.2.1	HAZARDOUS MATERIALS SITES.....	3.11-1
3.12	RECREATION	3.12-1
3.12.1	REGULATORY SETTING	3.12-1
3.12.2	RECREATIONAL SETTING	3.12-1
4.0	COMPARISON OF ALTERNATIVES.....	4.1-1
4.1	AIR QUALITY AND GREENHOUSE GASES	4.1-1
4.1.1	DIRECT AND INDIRECT EFFECTS	4.1-3
4.1.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.1-3
4.1.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.1-6
4.1.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.1-30
4.2	GEOLOGY AND MINERAL RESOURCES.....	4.2-1
4.2.1	DIRECT AND INDIRECT EFFECTS	4.2-2
4.2.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.2-2
4.2.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.2-4
4.2.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.2-13
4.3	HYDROLOGY AND WATER QUALITY	4.3-1
4.3.1	DIRECT AND INDIRECT EFFECTS	4.3-2
4.3.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.3-2
4.3.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.3-5
4.3.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.3-23

TABLE OF CONTENTS

4.4	BIOLOGICAL RESOURCES.....	4.4-1
4.4.1	DIRECT AND INDIRECT EFFECTS	4.4-1
4.4.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.4-1
4.4.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.4-2
4.4.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.4-28
4.5	LAND USE	4.5-1
4.5.1	DIRECT AND INDIRECT EFFECTS	4.5-1
4.5.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.5-1
4.5.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.5-2
4.5.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.5-6
4.6	SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE	4.6-1
4.6.1	DIRECT AND INDIRECT EFFECTS	4.6-2
4.6.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.6-2
4.6.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.6-3
4.6.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.6-5
4.7	TRANSPORTATION SYSTEMS AND TRAFFIC.....	4.7-1
4.7.1	TRAFFIC STUDY	4.7-1
4.7.2	DIRECT AND INDIRECT EFFECTS	4.7-2
4.7.2.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.7-2
4.7.2.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.7-2
4.7.2.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.7-10
4.8	VISUAL RESOURCES.....	4.8-1
4.8.1	DIRECT AND INDIRECT EFFECTS	4.8-1
4.8.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.8-1
4.8.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.8-2
4.8.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.8-10
4.9	CULTURAL RESOURCES.....	4.9-1
4.9.1	DIRECT AND INDIRECT EFFECTS	4.9-1
4.9.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.9-1
4.9.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.9-1
4.9.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.9-6
4.10	NOISE.....	4.10-1
4.10.1	DIRECT AND INDIRECT EFFECTS	4.10-1
4.10.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.10-1
4.10.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.10-2
4.10.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN.....	4.10-9
4.11	HAZARDS	4.11-1
4.11.1	DIRECT AND INDIRECT EFFECTS	4.11-1
4.11.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.11-1
4.11.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.11-2

TABLE OF CONTENTS

4.11.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN	4.11-12
4.12	RECREATION	4.12-1
4.12.1	DIRECT AND INDIRECT EFFECTS	4.12-1
4.12.1.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.12-1
4.12.1.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.12-2
4.12.1.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN	4.12-5
4.13	CUMULATIVE EFFECTS	4.13-1
4.13.1	INTRODUCTION.....	4.13-1
4.13.2	PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS.....	4.13-1
4.13.2.1	CALMAT MINING AND INDUSTRIAL DEVELOPMENT	4.13-2
4.13.2.2	UPPER SANTA ANA RIVER WATERSHED INTEGRATED REGIONAL WATER MANAGEMENT PLAN.....	4.13-4
4.13.2.3	CITY OF HIGHLAND DEVELOPMENT PROJECTS.....	4.13-5
4.13.2.4	CITY OF REDLANDS DEVELOPMENT PROJECTS	4.13-6
4.13.2.5	UNINCORPORATED SAN BERNARDINO COUNTY	4.13-9
4.13.3	CUMULATIVE EFFECTS BY RESOURCE	4.13-9
4.13.3.1	AIR QUALITY	4.13-9
4.13.3.2	GEOLOGY AND MINERAL RESOURCES	4.13-10
4.13.3.3	HYDROLOGY AND WATER QUALITY.....	4.13-12
4.13.3.4	BIOLOGICAL RESOURCES	4.13-14
4.13.3.5	LAND USE.....	4.13-15
4.13.3.6	SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE	4.13-16
4.13.3.7	TRANSPORTATION SYSTEMS AND TRAFFIC	4.13-17
4.13.3.8	VISUAL RESOURCES	4.13-19
4.13.3.9	CULTURAL RESOURCES.....	4.13-19
4.13.3.10	NOISE	4.13-20
4.13.3.11	HAZARDS.....	4.13-22
4.13.3.12	RECREATION	4.13-23
4.13.4	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES	4.13-24
4.13.4.1	AIR QUALITY AND GREENHOUSE GASES	4.13-24
4.13.4.2	GEOLOGY AND MINERAL RESOURCES	4.13-25
4.13.4.3	HYDROLOGY AND WATER QUALITY.....	4.13-25
4.13.4.4	BIOLOGICAL ENVIRONMENT	4.13-25
4.13.4.5	LAND USE.....	4.13-26
4.13.4.6	VISUAL RESOURCES	4.13-26
4.13.4.7	CULTURAL RESOURCES.....	4.13-26
4.13.5	SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY OF THE ENVIRONMENT.....	4.13-27
4.13.5.1	AIR QUALITY AND GREENHOUSE GASES	4.13-27
4.13.5.2	GEOLOGY AND MINERAL RESOURCES	4.13-27
4.13.5.3	HYDROLOGY AND WATER QUALITY.....	4.13-27

TABLE OF CONTENTS

4.13.5.4	BIOLOGICAL ENVIRONMENT	4.13-27
4.13.5.5	LAND USE.....	4.13-28
4.13.5.6	SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE	4.13-28
4.13.5.7	TRANSPORTATION SYSTEMS AND TRAFFIC	4.13-28
4.13.5.8	VISUAL RESOURCES.....	4.13-29
4.13.5.9	CULTURAL RESOURCES.....	4.13-29
4.13.6	GROWTH INDUCING IMPACTS	4.13-29
4.13.6.1	ALTERNATIVE A: NO ACTION ALTERNATIVE.....	4.13-30
4.13.6.2	ALTERNATIVE B: PROPOSED ACTION/PROJECT	4.13-30
4.13.6.3	ALTERNATIVE C: 2008 LAND MANAGEMENT PLAN	4.13-31
5.0	PUBLIC INVOLVEMENT AND SCOPING	5.0-1
6.0	REFERENCES.....	6.0-1

List of Appendices

APPENDIX A: FIGURES

APPENDIX B: LAWS AND REGULATIONS

APPENDIX C: FURTHER DISCUSSION OF EXISTING CONDITIONS

APPENDIX D: NOTICE OF INTENT, NOTICE OF PREPARATION, COMMENT LETTERS

APPENDIX E: AB 52

List of Figures

FIGURE 1.0-1, REGIONAL CONTEXT AND WASH PLAN HCP BOUNDARY	A-2
FIGURE 1.0-2, USGS TOPOGRAPHIC MAP	A-3
FIGURE 1.0-3, OWNERSHIP WITHIN THE WASH PLAN HCP AREA	A-4
FIGURE 1.0-4, EASEMENTS, RIGHT-OF-WAYS AND ACEC	A-5
FIGURE 1.0-5, OVERVIEW OF WASH PLAN HCP.....	A-6
FIGURE 1.0-6, WASH PLAN HCP SUBCOMPONENTS.....	A-7
FIGURE 1.0-7, BLM LAND EXCHANGE	A-8
FIGURE 2.0-1, COVERED ACTIVITIES	A-9
FIGURE 2.0-2, WASH PLAN HCP SUBCOMPONENTS.....	A-10
FIGURE 3.2-1, ALQUIST-PRILO FAULT ZONES	A-11
FIGURE 3.2-2, LIQUEFACTION ZONE MAP	A-12
FIGURE 3.2-3, SOILS MAP	A-13
FIGURE 3.2-4, MINERAL RESOURCE MAP	A-14
FIGURE 3.3-1, SURFACE HYDROLOGY	A-15
FIGURE 3.3-2, GROUNDWATER BASIN	A-16
FIGURE 3.4-1, DESIGNATED CRITICAL HABITAT AND CONSERVED AREAS	A-17
FIGURE 3.4-2, VEGETATION COMMUNITIES	A-18
FIGURE 3.4-3, SLENDER-HORNED SPINEFLOWER OCCURRENCES	A-19

TABLE OF CONTENTS

FIGURE 3.4-4, SANTA ANA WOOLLY STAR OCCURRENCES.....	A-20
FIGURE 3.4-5, POTENTIALLY SUITABLE CACTUS WREN HABITAT AND OCCURRENCES	A-21
FIGURE 3.4-6, CALIFORNIA GNATCATCHER HABITAT ASSESSMENT AND OCCURRENCES	A-22
FIGURE 3.4-7, SBKR HABITAT ASSESSMENTS AND OCCURRENCES	A-23
FIGURE 3.4-8, PRELIMINARY ASSESSMENT OF WATERS OF THE US	A-24
FIGURE 3.5-1, EXISTING GENERAL PLAN LAND USE	A-25
FIGURE 3.5-2, EXISTING ZONING	A-26
FIGURE 3.6-1, CENSUS TRACTS AND BLOCK GROUPS	A-27
FIGURE 3.7-1, STUDY INTERSECTION LOCATIONS	A-28
FIGURE 3.7-2, BASELINE (2004) PCE PEAK HOUR TRAFFIC VOLUMES	A-29
FIGURE 3.7-3, 2008 BACKGROUND WITHOUT PROJECT PCE PEAK HOUR TRAFFIC VOLUMES	A-30
FIGURE 3.7-4, YEAR 2030 BACKGROUND WITHOUT PROJECT PCE PEAK HOUR TRAFFIC VOLUMES	A-31
FIGURE 3.10-1, SOUND LEVELS AND HUMAN RESPONSE	A-32
FIGURE 3.10-2, NOISE MONITORING LOCATIONS	A-33
FIGURE 4.1-1, NEAREST SENSITIVE RECEPTORS TO PROPOSED MINING SITE	A-34
FIGURE 4.4-1, POTENTIAL IMPACTS ON VEGETATION COMMUNITIES	A-35
FIGURE 4.4-2, POTENTIAL IMPACTS ON SLENDER-HORNED SPINEFLOWER	A-36
FIGURE 4.4-3, POTENTIAL IMPACTS ON SANTA ANA RIVER WOOLLY-STAR	A-37
FIGURE 4.4-4, POTENTIAL IMPACTS ON CACTUS WREN	A-38
FIGURE 4.4-5, POTENTIAL IMPACTS ON CALIFORNIA GNATCATCHER	A-39
FIGURE 4.4-6, POTENTIAL IMPACTS ON SBKR	A-40
FIGURE 4.4-7, PRELIMINARY ASSESSMENT OF WATER OF THE US	A-41
FIGURE 4.7-1, YEAR 2008 BACKGROUND WITH PROJECT PCE PEAK HOUR TRAFFIC VOLUMES	A-42
FIGURE 4.7-2, YEAR 2030 BACKGROUND WITH PROJECT PCE PEAK HOUR TRAFFIC VOLUMES	A-43
FIGURE 4.7-3, YEAR 2030 MITIGATED INTERSECTION GEOMETRICS AND STOP CONTROL	A-44
FIGURE 4.8-1, VIEWPOINT AND SIMULATION LOCATION	A-45
FIGURE 4.8-2, VIEWPOINTS 1 & 2	A-46
FIGURE 4.8-3, VIEWPOINTS 3 & 4	A-47
FIGURE 4.8-4, VIEWPOINTS 5 & 6	A-48
FIGURE 4.8-5, VIEWPOINTS 7 & 8	A-49
FIGURE 4.8-6, SIMULATIONS 5 & 8	A-50
FIGURE 4.8-7, SIMULATION 2	A-51

List of Tables

TABLE ES-1. SUMMARY OF IMPACTS	ES-5
TABLE 1.0-1. OWNERSHIP IN THE PLAN AREA.....	1.0-3
TABLE 1.0-2. PLANNING ISSUES	1.0-11
TABLE 2.0-1. PHASING OF AGGREGATE MINING ACTIVITY COVERED BY HCP.....	2.0-4
TABLE 2.0-2. SUMMARY OF CONSERVED NATURAL COMMUNITIES	2.0-7
TABLE 2.0-3. AVOIDANCE AND MINIMIZATION MEASURES.....	2.0-9

TABLE OF CONTENTS

TABLE 2.0-4. PHASING OF THE HCP	2.0-10
TABLE 2.0-5. COMPARISON OF COVERED SPECIES CONSERVATION BETWEEN ALTERNATIVES.....	2.0-13
TABLE 2.0-6. COMPARISON OF PERMANENT IMPACTS BETWEEN THE ALTERNATIVES.....	2.0-8
TABLE 3.1-1. NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE PROJECT AREA	3.1-2
TABLE 3.1-2. EXISTING WASH PLAN AREA EMISSIONS.....	3.1-9
TABLE 3.1-3. EXISTING CO CONCENTRATIONS	3.1-11
TABLE 3.3-1. PLAN AREA 100-YEAR FLOWS.....	3.3-3
TABLE 3.3-2. BENEFICIAL USES AND CONSTITUENTS FOR WATER BODIES WITHIN OR DOWNSTREAM OF THE PLAN AREA	3.3-4
TABLE 3.3-3. ABBREVIATION DEFINITIONS FOR BENEFICIAL USES	3.3-5
TABLE 3.3-4. WATER QUALITY OBJECTIVES FOR WATER BODIES WITHIN OR DOWNSTREAM OF THE PLAN AREA	3.3-5
TABLE 3.3-5. EXISTING CEMEX AND ROBERTSON'S OPERATIONS WATER USE	3.3-7
TABLE 3.3-6. WATER QUALITY OBJECTIVES FOR GROUNDWATER BASIN RELATIVE TO THE PLAN AREA.....	3.3-8
TABLE 3.4-1. VEGETATION AND LAND COVER TYPES IN THE PLAN AREA	3.4-2
TABLE 3.4-2. SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE WASH PLAN HCP AREA	3.4-4
TABLE 3.4-3. SPECIAL STATUS WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE WASH PLAN HCP AREA.....	3.4-9
TABLE 3.6-1. POPULATION AND POPULATION CHANGE	3.6-2
TABLE 3.6-2. RACIAL AND ETHNIC COMPOSITION FOR THE COUNTY AND CITIES	3.6-3
TABLE 3.6-3. RACIAL AND ETHNIC COMPOSITION FOR THE PLAN AREA CENSUS TRACTS	3.6-3
TABLE 3.6-4. DEMOGRAPHIC PROFILE.....	3.6-4
TABLE 3.10-1. AMBIENT NOISE MONITORING RESULTS	3.10-2
TABLE 3.10-2. EXISTING TRAFFIC NOISE LEVELS.....	3.10-3
TABLE 3.10-3. CONSTRUCTION AND O&M EQUIPMENT NOISE LEVELS	3.10-6
TABLE 4.1-1. EXISTING FUGITIVE DUST EMISSIONS FROM CONTINUING MINING ACTIVITY	4.1-4
TABLE 4.1-2. EXISTING CRITERIA POLLUTANT CONCENTRATIONS AT NEAREST RESIDENCES.....	4.1-4
TABLE 4.1-3. TOTAL EMISSIONS FROM ACCESS ROAD CONSTRUCTION EQUIPMENT PER DAY.....	4.1-9
TABLE 4.1-4. CHANGES IN REGIONAL EMISSIONS RESULTING FROM THE PROPOSED EXPANSION.....	4.1-12
TABLE 4.1-5. 2030 PROPOSED PROJECT CO CONCENTRATIONS WITHOUT/WITH PROPOSED PROJECT	4.1-15
TABLE 4.1-6. CONSTRUCTION-RELATED HEALTH RISKS.....	4.1-18
TABLE 4.1-7. LONG-TERM HEALTH RISKS FROM THE PROPOSED PROJECT OPERATIONS	4.1-19
TABLE 4.1-8. EXISTING CRITERIA POLLUTANT CONCENTRATIONS AT NEAREST RESIDENCES.....	4.1-21
TABLE 4.1-9. PROPOSED CRITERIA POLLUTANT CONCENTRATIONS AT NEAREST RESIDENCES.....	4.1-21
TABLE 4.1-10. CARBON DIOXIDE EMISSIONS.....	4.1-26
TABLE 4.1-11. METHANE EMISSIONS.....	4.1-26
TABLE 4.1-12. NITROUS OXIDE EMISSIONS.....	4.1-27
TABLE 4.1-13. SOUTH COAST AQMD DISTRICT – SAN BERNARDINO COUNTY.....	4.1-31
TABLE 4.2-1. PHASING OF MINING ACTIVITY COVERED BY HCP	4.2-13
TABLE 4.4-1. EFFECTS ON AND CONSERVATION OF VEGETATION COMMUNITIES (ACRES).....	4.4-8
TABLE 4.4-2. EFFECTS ON AND CONSERVATION OF COVERED SPECIES.....	4.4-9

TABLE OF CONTENTS

TABLE 4.4-3. SANTA ANA SUCKER CRITICAL HABITAT IN THE PLAN AREA.....	4.4-16
TABLE 4.4-4. INCREASES IN COVERED SPECIES CONSERVATION IN 2019 HCP FROM 2008 LAND MANAGEMENT PLAN	4.4-29
TABLE 4.7-5. COMPARISON OF PERMANENT IMPACTS BETWEEN ALTERNATIVES B AND C.....	4.4-30
TABLE 4.7-1. PROJECT NEW TRIP GENERATION, AGGREGATE TRUCKS	4.7-4
TABLE 4.7-2. YEAR 2030 WITH IMPROVEMENTS INTERSECTION LEVELS OF SERVICE	4.7-8
TABLE 4.13-1. CITY OF HIGHLAND DEVELOPMENT PROJECTS.....	4.13-6
TABLE B.11-1. SUMMARY OF EPA NOISE LEVELS FOR PUBLIC PROTECTION	B-74
TABLE B.11-2. SUMMARY OF HUMAN EFFECTS IN AREAS EXPOSED TO 55DBA LDN	B-75
TABLE B.12-1. EXAMPLES FOR HAZARDOUS MATERIALS SECTIONS IN 2015 VEHICLE CODE	B-83
TABLE C.4.3-1. NON-COVERED SENSITIVE PLANT SPECIES PRESENT OR WITH POTENTIAL TO OCCUR IN THE PLAN AREA AND AVOIDANCE AND MITIGATION MEASURES	C-15
TABLE C.4.3-2. NON-COVERED SENSITIVE REPTILE AND AMPHIBIAN SPECIES PRESENT OR WITH POTENTIAL TO OCCUR IN THE PLAN AREA AND AVOIDANCE AND MITIGATION MEASURES	C-17
TABLE C.4.3-3. NON-COVERED SENSITIVE MAMMAL SPECIES PRESENT OR WITH POTENTIAL TO OCCUR IN THE PLAN AREA AND AVOIDANCE AND MITIGATION MEASURES	C-19
TABLE C.4.3-4. NON-COVERED SENSITIVE BIRD SPECIES PRESENT OR WITH POTENTIAL TO OCCUR IN THE PLAN AREA AND AVOIDANCE AND MITIGATION MEASURES	C-21
TABLE C.5-1. TRAFFIC VOLUMES ON SR-210 AT FIFTH STREET	C-24
TABLE C.5-2. TRAFFIC LEVEL OF SERVICE (LOS) DEFINITIONS	C-26
TABLE C.5-3. LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED AND SIGNALIZED INTERSECTIONS	C-26
TABLE C.5-4. BACKGROUND WITHOUT PROJECT INTERSECTION LEVELS OF SERVICE	C-30
TABLE C.5-5. FREEWAY MAINLINE BACKGROUND LEVEL OF SERVICE WITHOUT PROJECT	C-31
TABLE C.5-6. LEVEL OF SERVICE CRITERIA FOR RAMP JUNCTIONS	C-32
TABLE C.7-1. NOISE DESCRIPTORS	C-36
TABLE C.7-2. TYPICAL OFF-ROAD EQUIPMENT AND OTHER CONSTRUCTION NOISE LEVELS	C-39
TABLE C.7-3. 2008 BASELINE TRAFFIC NOISE LEVELS	C-41
TABLE C.7-4. 2008 WITH PROJECT (MINING EXPANSION) TRAFFIC NOISE LEVELS	C-42
TABLE C.7-5. 2030 BASELINE TRAFFIC NOISE LEVELS.....	C-43
TABLE C.7-6. 2030 WITH PROJECT (MINING EXPANSION) TRAFFIC NOISE LEVELS	C-44
TABLE C.7-7. EXISTING ROBERTSON'S AND CEMEX MINING EQUIPMENT	C-45

TABLE OF CONTENTS

This page intentionally left blank.