

TABLE OF CONTENTS

LIST OF FIGURES..... v

LIST OF TABLES vi

LIST OF ABBREVIATIONS AND ACRONYMS vii

EXECUTIVE SUMMARY ES-1

1.0 PROJECT AND AGENCY INFORMATION 1-1

1.1 PROJECT TITLE 1-1

1.2 LEAD AGENCIES AND PROJECT SPONSOR 1-1

1.3 ORGANIZATION/HOW TO USE THIS DOCUMENT 1-2

1.4 PROJECT LOCATION 1-4

1.5 PROJECT BACKGROUND..... 1-4

1.5.1 Lower Colorado River Multi-Species Conservation Program..... 1-4

1.5.2 Park Moabi Channel and Moabi Regional Park..... 1-7

1.5.3 Water Accounting Agreement..... 1-7

1.6 PUBLIC REVIEW AND COMMENT 1-7

1.7 APPLICABLE REGULATORY REQUIREMENTS AND APPROVALS 1-8

1.7.1 Compliance with Environmental Statutes 1-8

1.7.2 Tiering and Incorporation by Reference 1-8

1.7.3 State Action 1-8

1.7.4 Federal Action 1-9

1.7.5 Other Agencies with Review/Approval over Project Activities 1-9

2.0 PROJECT DESCRIPTION 2-1

2.1 PURPOSE AND NEED/PROJECT OBJECTIVES 2-1

2.2 PROJECT LOCATION 2-1

2.3 CURRENT CONDITIONS..... 2-1

2.4 DESCRIPTION OF THE PROPOSED PROJECT/PROPOSED ACTION..... 2-3

2.4.1 Timing Considerations and Estimated Schedule 2-11

2.4.2 Proposed Construction Area, Equipment, and Personnel 2-12

2.4.3 Other Project Design Features and Considerations 2-12

2.4.4 Alternatives..... 2-13

2.4.5 Past, Present, and Reasonably Foreseeable Future Projects 2-14

3.0 ENVIRONMENTAL CONSEQUENCES AND ANALYSIS 3-1

3.1 AESTHETICS/VISUAL RESOURCES 3-4

3.1.1 Environmental Setting 3-4

3.1.2 Regulatory Setting..... 3-4

3.1.3 Impact Analysis (CEQA)..... 3-5

3.1.4 Environmental Consequences (NEPA) 3-6

3.1.5 Mitigation Summary (CEQA Only)..... 3-6

3.2 AGRICULTURE AND FORESTRY RESOURCES..... 3-7

3.2.1 Environmental Setting 3-7

Table of Contents

3.2.2	Regulatory Setting.....	3-7
3.2.3	Impact Analysis (CEQA).....	3-8
3.2.4	Environmental Consequences (NEPA)	3-9
3.2.5	Mitigation Summary (CEQA Only)	3-10
3.3	AIR QUALITY.....	3-11
3.3.1	Environmental Setting	3-11
3.3.2	Regulatory Setting.....	3-12
3.3.3	Impact Analysis (CEQA).....	3-13
3.3.4	Environmental Consequences (NEPA)	3-18
3.3.5	Mitigation Summary (CEQA Only).....	3-19
3.4	BIOLOGICAL RESOURCES.....	3-20
3.4.1	Environmental Setting	3-20
3.4.2	Regulatory Setting.....	3-21
3.4.3	Impact Analysis (CEQA).....	3-24
3.4.4	Environmental Consequences (NEPA)	3-28
3.4.5	Mitigation Summary (CEQA Only).....	3-29
3.5	CULTURAL AND PALEONTOLOGICAL RESOURCES/TRADITIONAL CULTURAL PROPERTIES/SACRED SITES.....	3-30
3.5.1	Environmental Setting	3-30
3.5.2	Regulatory Setting.....	3-32
3.5.3	Impact Analysis (CEQA).....	3-35
3.5.4	Environmental Consequences (NEPA)	3-37
3.5.5	Mitigation Summary (CEQA Only).....	3-38
3.6	GEOLOGY AND SOILS	3-39
3.6.1	Environmental Setting	3-39
3.6.2	Regulatory Setting.....	3-40
3.6.3	Impact Analysis (CEQA).....	3-41
3.6.4	Environmental Consequences (NEPA)	3-43
3.6.5	Mitigation Summary (CEQA Only).....	3-44
3.7	GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE	3-45
3.7.1	Environmental Setting	3-45
3.7.2	Regulatory Setting.....	3-46
3.7.3	Impact Analysis (CEQA).....	3-47
3.7.4	Environmental Consequences (NEPA)	3-48
3.7.5	Mitigation Summary (CEQA Only).....	3-49
3.8	HAZARDS/HAZARDOUS MATERIALS/HUMAN HEALTH AND SAFETY.....	3-50
3.8.1	Environmental Setting	3-50
3.8.2	Regulatory Setting.....	3-51
3.8.3	Impact Analysis (CEQA).....	3-54
3.8.4	Environmental Consequences (NEPA)	3-57
3.8.5	Mitigation Summary (CEQA Only).....	3-58
3.9	HYDROLOGY AND WATER QUALITY	3-59
3.9.1	Environmental Setting	3-59
3.9.2	Regulatory Setting.....	3-60
3.9.3	Impact Analysis (CEQA).....	3-63
3.9.4	Environmental Consequences (NEPA)	3-67

3.9.5 Mitigation Summary (CEQA Only)	3-67
3.10 LAND USE AND PLANNING	3-68
3.10.1 Environmental Setting	3-68
3.10.2 Regulatory Setting	3-68
3.10.3 Impact Analysis (CEQA)	3-69
3.10.4 Environmental Consequences (NEPA)	3-70
3.10.5 Mitigation Summary (CEQA Only)	3-70
3.11 MINERAL RESOURCES	3-71
3.11.1 Environmental Setting	3-71
3.11.2 Regulatory Setting	3-72
3.11.3 Impact Analysis (CEQA)	3-73
3.11.4 Environmental Consequences (NEPA)	3-73
3.11.5 Mitigation Summary (CEQA Only)	3-73
3.12 NOISE	3-74
3.12.1 Environmental Setting	3-74
3.12.2 Regulatory Setting	3-74
3.12.3 Impact Analysis (CEQA)	3-75
3.12.4 Environmental Consequences (NEPA)	3-77
3.12.5 Mitigation Summary (CEQA Only)	3-77
3.13 POPULATION AND HOUSING	3-78
3.13.1 Environmental Setting	3-78
3.13.2 Regulatory Setting	3-78
3.13.3 Impact Analysis (CEQA)	3-78
3.13.4 Environmental Consequences (NEPA)	3-79
3.13.5 Mitigation Summary (CEQA Only)	3-79
3.14 PUBLIC SERVICES	3-80
3.14.1 Environmental Setting	3-80
3.14.2 Regulatory Setting	3-80
3.14.3 Impact Analysis (CEQA)	3-81
3.14.4 Environmental Consequences (NEPA)	3-82
3.14.5 Mitigation Summary (CEQA Only)	3-82
3.15 RECREATION	3-83
3.15.1 Environmental Setting	3-83
3.15.2 Regulatory Setting	3-83
3.15.3 Impact Analysis (CEQA)	3-84
3.15.4 Environmental Consequences (NEPA)	3-84
3.15.5 Mitigation Summary (CEQA Only)	3-85
3.16 TRANSPORTATION/TRAFFIC	3-86
3.16.1 Environmental Setting	3-86
3.16.2 Regulatory Setting	3-87
3.16.3 Impact Analysis (CEQA)	3-87
3.16.4 Environmental Consequences (NEPA)	3-89
3.16.5 Mitigation Summary (CEQA Only)	3-90
3.17 UTILITIES AND SERVICE SYSTEMS	3-91
3.17.1 Environmental Setting	3-91
3.17.2 Regulatory Setting	3-92

Table of Contents

3.17.3 Impact Analysis (CEQA)..... 3-92

3.17.4 Environmental Consequences (NEPA) 3-93

3.17.5 Mitigation Summary (CEQA Only)..... 3-93

3.18 MANDATORY FINDINGS OF SIGNIFICANCE..... 3-94

 3.18.1 Discussion of Impacts 3-94

4.0 ADDITIONAL NEPA AND CEQA CONSIDERATIONS 4-1

 4.1 ENVIRONMENTAL JUSTICE 4-1

 4.2 INDIAN TRUST ASSETS OR TRIBAL LANDS 4-4

5.0 MITIGATION MONITORING PROGRAM 5-1

 5.1 PURPOSE 5-1

 5.2 ENFORCEMENT AND COMPLIANCE 5-1

 5.3 MONITORING..... 5-1

 5.4 MITIGATION MONITORING PROGRAM 5-2

6.0 PREPARERS, ETC. 6-1

 6.1 PERSONS/AGENCIES CONSULTED 6-1

 6.2 SCOPING/PUBLIC INVOLVEMENT 6-1

 6.3 DISTRIBUTION LIST 6-2

 6.4 LIST OF PREPARERS 6-3

 6.5 REFERENCES CITED..... 6-3

APPENDICES

Appendix A LCR Park Moabi Backwater Channel Restoration Design Report 60% Draft

Appendix B Mohave Valley Backwater Restoration Development and Monitoring Plan, September 2015

Appendix C Estimated Quantities for Emissions Calculation Sheet

Appendix D Emission Factors for Criterial Pollutants - Selected WebFire Factors.

Appendix E Biological Resources Clearance Surveys for Soil Sampling at Test Pit Locations within the Proposed Park Moabi Backwater in Accordance with the Non- Exclusive Geological Sampling Permit PRC 9283

Appendix F U.S. Fish and Wildlife Endangered Species Section 7 Consultation Letter, January 28, 2015

Appendix G Incidental Take Permit issued by California Department of Fish and Wildlife (Incidental Take Permit File No. 2081-2005-008-06)

Appendix H A Phase I Cultural Resources Investigation for the Proposed OHV Area-Park Moabi Regional Park Trail Improvements San Bernardino County California, June 3, 2011

Appendix I Mohave Valley Conservation Area Test Pits: State Historic Preservation Office Consultation Response Letter (May 21, 2015)

Appendix J	Native American Heritage Commission Response Letter, March 28, 2014
Appendix K	Mohave Valley Conservation Area Backwater Project State Historic Preservation Office Consultation Letter (July 31, 2015) and California SHPO Response Letter (September 1, 2015)
Appendix L	U.S. Bureau of Reclamation, Subject; Mohave Valley Backwater Conservation Area Project sent, May 20, 2015
Appendix M	Hopi Tribe of Arizona Response Letter to Tribal Consultation received, June 5, 2014
Appendix N	Letter from the California State Lands Commission’s Executive Officer Notifying Native American Representatives of the Mohave Valley Conservation Area Backwater Project (October 2, 2015)
Appendix O	Mohave Valley Conservation Area Wetlands Investigation Draft Report, San Bernardino County, California, May 2015
Appendix P	Hydrology Report for North Peninsula Improvements for Pirate Cove Resort and Marina, September 2012
Appendix Q	Lake and Streambed Alteration Agreement Letter from California Department of Fish and Wildlife, September 21, 2015

LIST OF FIGURES

Figure ES-1. Project Area Vicinity Map	ES-2
Figure ES-2. Project Site Map	ES-3
Figure ES-3. Project Draft Site Plan at 60% Design.....	ES-6
Figure ES-4. Example of Phase 3 Planting Scheme – Establishment/Re-Vegetation.....	ES-9
Figure ES-5. Land Cover Types for Vegetation Restoration at 60% Design 60% ...	ES-10
Figure 1.4-1. Project Area Vicinity Map	1-5
Figure 2.2-1. Project Site Map.....	2-2
Figure 2.4-1. Project Draft Site Map at 60% Design.....	2-6
Figure 2.4-2. Example Riprap Material.....	2-7
Figure 2.4-3. Example of Phase 3 Planting Scheme – Establishment/	2-9
Figure 2.4-4. Land Cover Types for Vegetation Restoration at 60% Design	2-10
Figure 2.4-5. Proposed Designated Sediment Disposal Site for Dredge Material with Topock Setting Basin	2-11

LIST OF TABLES

Table ES-1. Environmental Issues and Potentially Significant Impacts	ES-12
Table ES-2. Summary of Proposed Project Mitigation Measures	ES-12
Table 1.3-1. Equivalent NEPA and CEQA Terminology.....	1-2

Table of Contents

Table 2.4-1. Anticipated Project Schedule 2-11

Table 2.4-2. Anticipated Project Equipment and Personnel..... 2-12

Table 2.4-3. Past, Present, and Reasonably Foreseeable Future Actions..... 2-14

Table 3.1-1. Laws, Regulations, and Policies (Aesthetics/Visual Resources)..... 3-4

Table 3.2-1. Laws, Regulations, and Policies (Agriculture and Forestry Resources).. 3-8

Table 3.3-1. Laws, Regulations, and Policies (Air Quality) 3-12

Table 3.3-2. Mojave Desert AQMD Emissions Thresholds* 3-13

Table 3.3-3. Estimated Total Project Fuel Use per Equipment Type 3-16

Table 3.3-4. Project Emissions – Combined all Fuel Types..... 3-16

Table 3.4-1. Laws, Regulations, and Policies (Biological Resources)..... 3-21

Table 3.5-1. Laws, Regulations, and Policies (Cultural And Paleontological Resources/Traditional Cultural Properties/Sacred Sites) 3-32

Table 3.6-1. Laws, Regulations, and Policies (Geology and Soils) 3-40

Table 3.7-1. Laws, Regulations, and Policies (Greenhouse Gas Emissions and Climate Change) 3-46

Table 3.7-2. Estimated Annual Greenhouse Gas Emissions and Thresholds..... 3-47

Table 3.8-1. Laws, Regulations, and Policies (Hazards/Hazardous Materials/Human Health and Safety) 3-51

Table 3.9-1. Laws, Regulations, and Policies (Hydrology and Water Quality) 3-60

Table 3.11-1. Laws, Regulations, and Policies (Mineral Resources) 3-72

Table 3.12-1. Laws, Regulations, and Policies (Noise)..... 3-75

Table 3.14-1. Laws, Regulations, and Policies (Public Services) 3-80

Table 3.16-1. Federal and/or State Laws, Regulations, and Policies Potentially Applicable to the Project (Transportation/Traffic) 3-87

Table 4.1-1. Population, Minorities, and Poverty Level by Census Tract 4-2

Table 4.1-2. Area Demographic Breakdown 4-3

Table 5-1. Mitigation Monitoring Program 5-3

LIST OF ABBREVIATIONS AND ACRONYMS

A

AHPA	Archaeological and Historic Preservation Act
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
ARPA	Archaeological Resources Protection Act

B

BNSF	Burlington Northern and Santa Fe
BO	Biological Opinion

C

CARB	California Air Resources Board
CDCAP WMP	California Desert Conservation Area Plan, West Mojave Plan
CDFW	California Department of Fish and Wildlife/Applicant
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response and Compensation Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CO ₂ e	Carbon Dioxide Equivalent
County	San Bernardino County
CRA	California Resource Agency
CSLC	California State Lands Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act

E

EA	Environmental Assessment
EA/MND	Environmental Assessment/Mitigated Negative Declaration
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EO	Executive Order
ESA	Endangered Species Act

G

GHG	Greenhouse Gas Emissions
-----	--------------------------

H

HCP	Habitat Conservation Plan
-----	---------------------------

I

I-40	Interstate 40
IS	Initial Study
ITA	Indian Trust Assets

L

LCR MSCP	Lower Colorado River Multi-Species Conservation Program
----------	---

M

MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MM	Mitigation Measure
MMP	Mitigation Monitoring Program
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone

N

NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System

O

OHP	California Office of Historic Preservation
OHV	Off-Highway Vehicles

P

Park	Moabi Regional Park
Project	Mojave Valley Backwaters Project/Proposed Action/Federal Action

R

Reclamation	Bureau of Reclamation
RHA	Rivers and Harbors Act
RV	Recreational Vehicle

S

SHPO	State Historic Preservation Officer
SMARA	Surface Mining and Reclamation Act
SWPPP	Storm Water Pollution Prevention Program

T

T&E	Threatened and Endangered Species
TCP	Traditional Cultural Properties
TSCA	Toxic Substances Control Act

U

USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

W

WebFire	Clearinghouse for Inventories and Emissions Factors, Web Factor Information Retrieval System
WQMP	Water Quality Management Plan