

U.S. Army Corps of Engineers

**WESTBROOK PROJECT
Draft Environmental Impact Statement
USACE Action ID: SPK-2005-00938**

Volume I



U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922
(916) 557-6605

May 2013

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Westbrook Project

USACE Action ID: SPK-2005-00938

Volume I

Prepared for:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814

Prepared by:

Impact Sciences, Inc.
555 12th Street, Suite 1650
Oakland, California 94607

May 2013

TABLE OF CONTENTS

Volume I		Page
<u>Chapter</u>		<u>Page</u>
Abstract		
ES	Executive Summary	ES-1
	Purpose of this Document	ES-1
	Project Location.....	ES-1
	Purpose and Need for Action	ES-1
	Proposed Action and Alternatives.....	ES-2
1.0	Introduction and Statement of Purpose and Need.....	1.0-1
1.1	Introduction and Project Requiring Environmental Analysis.....	1.0-1
1.2	Project Location.....	1.0-2
1.3	History of Proposed Federal Action	1.0-2
1.4	Project Purpose and Need	1.0-5
1.5	Project Background	1.0-7
1.6	NEPA Requirements and Process	1.0-8
1.7	Scope and Focus of this Environmental Impact Statement	1.0-9
1.8	Lead Agency and Other Agencies with Jurisdiction over the Project.....	1.0-9
1.9	EIS Scoping.....	1.0-10
1.10	Availability of Environmental Impact Statement	1.0-10
1.11	Intended Use of this Document.....	1.0-11
1.12	Organization of this Environmental Impact Statement	1.0-11
1.13	Standard Terminology, Acronyms, and Abbreviations.....	1.0-12
2.0	Proposed Action and Alternatives.....	2.0-1
2.1	Introduction.....	2.0-1
2.2	NEPA Requirements for Evaluation of Alternatives	2.0-1
2.3	Development of Alternatives to Proposed Action	2.0-2
2.3.1	On-Site Alternatives	2.0-2
2.3.2	Off-Site Alternatives	2.0-2
2.4	Proposed Action.....	2.0-6
2.4.1	Westbrook Land Use Plan.....	2.0-6
2.4.2	Circulation System	2.0-10
2.4.3	Utilities and Public Services.....	2.0-12
2.4.4	Project Implementation	2.0-16
2.4.5	Measures Adopted by the City of Roseville	2.0-17
2.4.6	Required Permits and Approvals.....	2.0-17
2.5	Alternatives Analyzed in the EIS	2.0-18
2.5.1	No Action Alternative.....	2.0-18
2.5.2	Reduced Footprint/Increased Density Alternative.....	2.0-19
2.5.3	Reduced Footprint/Same Density Alternative.....	2.0-21
2.5.4	Central Preserve Alternative.....	2.0-21
2.5.5	One Acre Fill Alternative	2.0-22
2.5.6	Half Acre Fill Alternative.....	2.0-27
2.5.7	Off-Site Alternative (Placer Ranch Site)	2.0-27

2.6	Alternatives Considered but Rejected	2.0-28
2.6.1	Amoruso Ranch.....	2.0-33
2.6.2	Reason Farms Panhandle.....	2.0-33
2.6.3	Regional University.....	2.0-34
2.6.4	Curry Creek	2.0-34
2.6.5	Industrial Infill.....	2.0-35
2.6.6	Dry Creek – West Placer.....	2.0-35
2.7	Summary Comparison of Proposed Action and Alternatives.....	2.0-35
2.8	References	2.0-35
3.0	Affected Environment and Environmental Consequences	3.0-1
3.0.1	Introduction.....	3.0-1
3.0.2	Scope of the EIS	3.0-1
3.0.3	Section Contents and Definition of Terms.....	3.0-2
3.0.4	Topics with Less Than Significant or No Impacts from the Proposed Action and Alternatives	3.0-14
3.1	Aesthetics.....	3.1-1
3.1.1	Introduction	3.1-1
3.1.2	Affected Environment.....	3.1-1
	3.1.2.1 Regional Setting.....	3.1-1
	3.1.2.2 Project Site – Existing Conditions.....	3.1-1
	3.1.2.3 Alternative Site – Existing Conditions	3.1-2
3.1.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.1-3
	3.1.3.1 City of Roseville General Plan Community Design Goals and Policies	3.1-3
	3.1.3.2 City of Roseville Community Design Guidelines	3.1-4
	3.1.3.3 Sierra Vista Specific Plan Design Guidelines.....	3.1-4
3.1.4	Significance Thresholds and Analysis Methodology	3.1-4
	3.1.4.1 Significance Thresholds	3.1-4
	3.1.4.2 Analysis Methodology	3.1-5
3.1.5	Environmental Consequences and Mitigation Measures	3.1-5
3.1.6	Residual Significant Impacts.....	3.1-10
3.1.7	Cumulative Impacts	3.1-11
3.1.8	References	3.1-11
3.2	Agricultural Resources	3.2-1
3.2.1	Introduction	3.2-1
3.2.2	Affected Environment	3.2-1
	3.2.2.1 Regional Setting.....	3.2-1
	3.2.2.2 Storie Index	3.2-2
	3.2.2.3 Classification of Farmland in California	3.2-3
	3.2.2.4 Conversion of Farmland in Placer County	3.2-4
	3.2.2.5 Project Site – Existing Agricultural Uses On-Site and in its Vicinity	3.2-6
	3.2.2.6 Alternative Site – Existing Agricultural Uses On-Site and in its Vicinity	3.2-8

3.2.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.2-8
3.2.3.1	Farmland Protection Policy Act.....	3.2-8
3.2.3.2	Williamson Act.....	3.2-9
3.2.4	Significance Thresholds and Analysis Methodology	3.2-9
3.2.4.1	Significance Thresholds	3.2-9
3.2.4.2	Analysis Methodology	3.2-9
3.2.5	Environmental Consequences and Mitigation Measures	3.2-11
3.2.6	Residual Significant Impacts.....	3.2-19
3.2.7	Cumulative Impacts	3.2-19
3.2.8	References	3.2-20
3.3	Air Quality.....	3.3-1
3.3.1	Introduction	3.3-1
3.3.2	Affected Environment	3.3-1
3.3.2.1	Regional Setting.....	3.3-1
3.3.2.2	Ambient Air Quality Standards	3.3-2
3.3.2.3	Toxic Air Contaminants.....	3.3-6
3.3.2.4	Ambient Air Monitoring.....	3.3-7
3.3.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.3-7
3.3.3.1	Federal Laws, Regulations, Plans, and Policies.....	3.3-8
3.3.3.2	State Laws, Regulations, Plans, and Policies	3.3-9
3.3.3.3	Local Plans, Policies, and Ordinances	3.3-9
3.3.4	Significance Thresholds and Analysis Methodology	3.3-16
3.3.4.1	Significance Thresholds	3.3-16
3.3.4.2	Analysis Methodology	3.3-17
3.3.5	Environmental Consequences and Mitigation Measures	3.3-19
3.3.6	Residual Significant Impacts.....	3.3-36
3.3.7	Cumulative Impacts	3.3-36
3.3.8	General Conformity.....	3.3-45
3.3.9	References	3.3-49
3.4	Biological Resources.....	3.4-1
3.4.1	Introduction	3.4-1
3.4.2	Affected Environment	3.4-1
3.4.2.1	Key Terms Used in this Section	3.4-1
3.4.2.2	Regional Setting.....	3.4-2
3.4.2.3	Project Site – Location and Setting	3.4-2
3.4.2.4	Project Site – Biological Communities.....	3.4-4
3.4.2.5	Project Site – Waters of the United States	3.4-7
3.4.2.6	Project Site – Tree Resources.....	3.4-9
3.4.2.7	Project Site – Wildlife	3.4-9
3.4.2.8	Special-Status Species.....	3.4-10
3.4.2.9	Alternative Site and Off-Site Infrastructure Corridors – Location and Setting.....	3.4-21
3.4.2.10	Alternative Site and Off-Site Infrastructure Corridors – Biological Communities.....	3.4-24
3.4.2.11	Alternative Site and Off-Site Infrastructure Corridors – Waters of the United States	3.4-25

3.4.2.12	Alternative Site and Off-Site Infrastructure Corridors – Tree Resources	3.4-27
3.4.2.13	Alternative Site and Off-Site Infrastructure Corridors – Wildlife.....	3.4-27
3.4.2.14	Alternative Site and Off-Site Infrastructure Corridors – Special-Status Plant and Wildlife Species	3.4-28
3.4.2.15	Regional Aquatic Resources	3.4-33
3.4.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.4-36
3.4.3.1	Federal Laws, Regulations, Plans, and Policies.....	3.4-36
3.4.3.2	State Laws and Regulations.....	3.4-39
3.4.4	Significance Thresholds and Analysis Methodology	3.4-41
3.4.4.1	Significance Thresholds	3.4-41
3.4.4.2	Analysis Methodology	3.4-41
3.4.5	Environmental Consequences and Mitigation Measures	3.4-43
3.4.6	Residual Significant Impacts.....	3.4-88
3.4.7	Cumulative Impacts	3.4-88
3.4.7.1	Current Status of the Resource	3.4-88
3.4.8	References	3.4-102
3.5	Climate Change	3.5-1
3.5.1	Introduction	3.5-1
3.5.2	Affected Environment	3.5-1
3.5.2.1	Background	3.5-1
3.5.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.5-7
3.5.3.1	Intergovernmental Panel on Climate Change	3.5-7
3.5.3.2	Federal.....	3.5-7
3.5.3.3	State	3.5-8
3.5.3.4	Regional Programs	3.5-9
3.5.4	Significance Thresholds and Analysis Methodology	3.5-10
3.5.4.1	Significance Thresholds	3.5-10
3.5.4.2	Analysis Methodology	3.5-12
3.5.5	Environmental Consequences and Mitigation Measures	3.5-13
3.5.6	Residual Significant Impacts.....	3.5-25
3.5.7	Cumulative Impacts	3.5-26
3.5.8	References	3.5-26
3.6	Cultural Resources	3.6-1
3.6.1	Introduction	3.6-1
3.6.2	Affected Environment	3.6-2
3.6.2.1	Study Area and Project Area of Potential Effects (APE)	3.6-2
3.6.2.2	Regional Prehistory, Ethnography, and History	3.6-3
3.6.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.6-5
3.6.3.1	Federal Laws, Regulations, Plans, and Policies	3.6-5
3.6.3.2	State Laws, Regulations, Plans, and Policies	3.6-7
3.6.3.3	Local	3.6-7

3.6.4	Significance Thresholds and Analysis Methodology	3.6-8
3.6.4.1	Significance Thresholds	3.6-8
3.6.4.2	Analysis Methodology	3.6-8
3.6.5	Environmental Consequences and mitigation measures.....	3.6-12
3.6.6	Residual Significant Impacts.....	3.6-15
3.6.7	Cumulative Impacts	3.6-16
3.6.8	References	3.6-17
3.7	Environmental Justice, Population, and Housing.....	3.7-1
3.7.1	Introduction	3.7-1
3.7.2	Affected Environment	3.7-1
3.7.2.1	Regional Setting.....	3.7-1
3.7.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.7-4
3.7.3.1	Federal Laws, Regulations, Plans, and Policies	3.7-4
3.7.3.2	State Laws, Regulations, Plans, and Policies	3.7-5
3.7.3.3	Local Plans, Policies, and Ordinances.....	3.7-5
3.7.4	Significance Thresholds and Analysis Methodology	3.7-5
3.7.4.1	Significance Thresholds	3.7-5
3.7.4.2	Analysis Methodology	3.7-6
3.7.5	Environmental Consequences and Mitigation Measures	3.7-7
3.7.6	Residual Significant Impacts.....	3.7-9
3.7.7	Cumulative Impacts	3.7-10
3.7.8	References	3.7-10
3.8	Geology, Soils, and Minerals	3.8-1
3.8.1	Introduction	3.8-1
3.8.2	Affected Environment	3.8-1
3.8.2.1	Physiographic Setting	3.8-1
3.8.2.2	Regional Seismicity and Fault Zones	3.8-2
3.8.2.3	Project Site - Topographic and Geologic Conditions	3.8-2
3.8.2.4	Project Site – Liquefaction.....	3.8-5
3.8.2.5	Project Site – Soils	3.8-5
3.8.2.6	Project Site – Mineral Resources.....	3.8-5
3.8.2.7	Alternative Site – Topography, Geologic Conditions, and Mineral Resources	3.8-5
3.8.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.8-6
3.8.3.1	Federal Laws, Regulations, Plans, and Policies	3.8-6
3.8.3.2	State Laws, Regulations, Plans, and Policies	3.8-8
3.8.3.6	Local Plans, Policies, and Ordinances.....	3.8-9
3.8.4	Significance Thresholds and Analysis Methodology	3.8-11
3.8.4.1	Significance Thresholds	3.8-11
3.8.4.2	Analysis Methodology	3.8-11
3.8.5	Environmental Consequences and Mitigation Measures	3.8-12
3.8.6	Residual Significant Impacts.....	3.8-17
3.8.7	Cumulative Impacts	3.8-17
3.8.8	References	3.8-18

3.9	Hazards and Hazardous Materials	3.9-1
3.9.1	Introduction	3.9-1
3.9.2	Affected Environment	3.9-1
3.9.2.1	Past and Current Conditions on the Project Site	3.9-2
3.9.2.2	Alternative Site	3.9-3
3.9.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.9-3
3.9.3.1	Federal Laws, Regulations, Plans, and Policies	3.9-4
3.9.3.2	State Laws, Regulations, Plans, and Policies	3.9-5
3.9.3.3	Local Plans, Policies, and Ordinances.....	3.9-8
3.9.3.4	Agency Databases	3.9-9
3.9.4	Significance Thresholds and Analysis Methodology	3.9-10
3.9.4.1	Significance Thresholds	3.9-10
3.9.4.2	Analysis Methodology	3.9-10
3.9.5	Environmental Consequences and Mitigation Measures	3.9-10
3.9.6	Residual Significant Impacts.....	3.9-17
3.9.7	Cumulative Impacts	3.9-17
3.9.8	References	3.9-17
3.10	Hydrology and Water Quality	3.10-1
3.10.1	Introduction	3.10-1
3.10.2	Affected Environment	3.10-1
3.10.2.1	Regional Surface Water Hydrology	3.10-1
3.10.2.2	Regional Groundwater Hydrology	3.10-2
3.10.2.3	Regional Water Quality.....	3.10-3
3.10.2.4	Regional Flood Hazards.....	3.10-4
3.10.2.5	Project Site – Surface Water Hydrology.....	3.10-5
3.10.2.6	Project Site - Flood Hazards.....	3.10-5
3.10.2.7	Project Site – Groundwater Levels and Groundwater Recharge....	3.10-5
3.10.2.8	Alternative Site – Surface Water Hydrology, Flood Hazards, and Groundwater Conditions	3.10-6
3.10.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.10-6
3.10.3.1	Federal Laws, Regulations, Plans, and Policies	3.10-6
3.10.3.2	State Laws, Regulations, Plans, and Policies	3.10-9
3.10.3.3	Local Plans, Policies, and Ordinances.....	3.10-11
3.10.4	Significance Thresholds and Analysis Methodology	3.10-14
3.10.4.1	Significance Thresholds	3.10-14
3.10.4.2	Analysis Methodology	3.10-15
3.10.5	Environmental Consequences and Mitigation Measures	3.10-16
3.10.6	Residual Significant Impacts.....	3.10-35
3.10.7	Cumulative Impacts	3.10-35
3.10.8	References	3.10-39

3.11	Land Use and Planning.....	3.11-1
3.11.1	Introduction	3.11-1
3.11.2	Affected Environment.....	3.11-1
3.11.2.1	Project Site – Existing Land Uses and Designations	3.11-1
3.11.2.2	Existing and Planned Land Uses in the Vicinity of Project Site	3.11-2
3.11.2.3	Alternative Site – Existing Land Uses and Designations.....	3.11-2
3.11.2.4	Existing and Planned Land Uses in the Vicinity of Off-Site Alternative Site	3.11-3
3.11.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.11-3
3.11.3.1	City of Roseville 2025 General Plan	3.11-3
3.11.3.2	Sacramento Area Council of Governments	3.11-6
3.11.4	Significance Thresholds and Analysis Methodology	3.11-8
3.11.4.1	Significance Thresholds	3.11-8
3.11.4.2	Analysis Methodology	3.11-8
3.11.5	Environmental Consequences and Mitigation Measures	3.11-8
3.11.6	Residual Significant Impacts.....	3.11-18
3.11.7	Cumulative Impacts	3.11-18
3.11.8	References	3.11-18
3.12	Noise	3.12-1
3.12.1	Introduction	3.12-1
3.12.2	Affected Environment.....	3.12-1
3.12.2.1	Characteristics of Environmental Noise	3.12-1
3.12.2.2	Existing Noise Conditions in Project Area.....	3.12-2
3.12.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.12-7
3.12.3.1	Federal Laws, Regulations, Plans, and Policies	3.12-7
3.12.3.2	State Laws, Regulations, Plans, and Policies	3.12-7
3.12.3.3	Local Plans, Policies, and Ordinances.....	3.12-7
3.12.4	Significance Thresholds and Analysis Methodology	3.12-10
3.12.4.1	Significance Thresholds	3.12-10
3.12.4.2	Analysis Methodology	3.12-10
3.12.5	Environmental Consequences and Mitigation Measures	3.12-11
3.12.6	Residual Significant Impacts.....	3.12-26
3.12.7	Cumulative Impact.....	3.12-26
3.12.8	References	3.12-28
3.13	Public Services.....	3.13-1
3.13.1	Introduction	3.13-1
3.13.2	Affected Environment.....	3.13-1
3.13.2.1	Proposed Action and On-Site Alternatives.....	3.13-1
3.13.2.2	Alternative Site	3.13-5
3.13.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.13-6
3.13.3.1	Federal Laws, Regulations, Plans, and Policies	3.13-6
3.13.3.2	State Laws, Regulations, Plans, and Policies	3.13-6
3.13.3.3	Local Plans and Policies	3.13-6

3.13.4	Significance Thresholds and Analysis Methodology	3.13-9
3.13.4.1	Significance Thresholds	3.13-9
3.13.4.2	Analysis Methodology	3.13-9
3.13.5	Environmental Consequences and Mitigation Measures	3.13-9
3.13.6	Residual Significant Impacts.....	3.13-16
3.13.7	Cumulative Impacts	3.13-16
3.13.8	References	3.13-16
3.14	Transportation and Traffic.....	3.14-1
3.14.1	Introduction	3.14-1
3.14.2	Affected Environment	3.14-1
3.14.2.1	Study Area Roadways and Intersections.....	3.14-1
3.14.2.2	Existing Traffic Levels of Service.....	3.14-4
3.14.2.3	Study Area Intersections.....	3.14-7
3.14.2.4	Study Area Roadway Segments	3.14-7
3.14.2.5	Study Area State Highways.....	3.14-12
3.14.2.6	Existing Transit Service.....	3.14-13
3.14.2.7	Existing Pedestrian Facilities	3.14-14
3.14.2.8	Existing Bicycle Facilities	3.14-14
3.14.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.14-14
3.14.3.1	Federal and State Laws, Regulations, Plans, and Policies	3.14-14
3.14.3.2	Local Laws, Regulations, Plans, and Policies	3.14-14
3.14.4	Significance thresholds and Analysis Methodology	3.14-15
3.14.4.1	Significance Thresholds	3.14-15
3.14.4.2	Analysis Methodology	3.14-16
3.14.5	Environmental Consequences and Mitigation Measures	3.14-20
3.14.6	Residual Significant Impacts.....	3.14-32
3.14.7	Cumulative Impacts	3.14-32
3.14.8	References	3.14-32
3.15	Utilities and Service Systems.....	3.15-1
3.15.1	Introduction	3.15-1
3.15.2	Affected Environment	3.15-2
3.15.2.1	Water	3.15-2
3.15.2.2	Wastewater	3.15-9
3.15.2.3	Solid Waste	3.15-10
3.15.2.4	Electricity and Natural Gas.....	3.15-11
3.15.3	Regulatory Framework – Applicable Laws, Regulations, Plans, and Policies.....	3.15-12
3.15.3.1	Water Laws, Regulations, Plans, and Policies	3.15-12
3.15.3.2	Wastewater Laws, Regulations, Plans, and Policies	3.15-16
3.15.3.3	Solid Waste Laws, Regulations, Plans, and Policies.....	3.15-18
3.15.3.4	Electricity and Natural Gas Laws, Regulations, Plans and Policies	3.15-19
3.15.4	Significance Thresholds and Analysis Methodology	3.15-20
3.15.4.1	Significance Thresholds	3.15-20
3.15.4.2	Analysis Methodology	3.15-20
3.15.5	Environmental Consequences and Mitigation Measures	3.15-23
3.15.6	Residual Significant Impacts.....	3.15-46

3.15.7	Cumulative Impact.....	3.15-46
3.15.8	References	3.15-50
4.0	Other Statutory Requirements	4.0-1
4.1	Introduction.....	4.0-1
4.2	Irreversible and Irrecoverable Commitment of Resources	4.0-1
4.3	Significant Impacts that Cannot be Avoided.....	4.0-2
4.4	Relationship between Short-Term Uses of the Environment and Maintenance and Enhancement of Long-term Productivity	4.0-2
4.5	Growth-Inducing Impacts	4.0-3
4.5.1	Elimination of Obstacles of Growth	4.0-3
4.5.2	Economic Effects.....	4.0-4
4.6	Energy Requirements and Conservation Potential.....	4.0-5
4.7	Compliance with Other Environmental Laws and Regulations	4.0-5
4.7.1	Federal.....	4.0-5
4.7.2	State	4.0-9
4.7.3	Plans and Policies	4.0-13
4.7.4	Methods of Compliance	4.0-14
4.8	References	4.0-16
5.0	Consultation And Coordination	5.0-1
5.1	Public Involvement	5.0-1
5.2	Public Scoping.....	5.0-1
5.3	Agency Coordination.....	5.0-1
5.4	Document Availability.....	5.0-1
6.0	List of Preparers	6.0-1
6.1	U.S. Army Corps of Engineers	6.0-1
6.2	Impact Sciences, Inc.	6.0-1
6.3	Subconsultants.....	6.0-1
7.0	Index	7.0-1

Volume II

Appendices

- 1.0 Scoping Letter
- 2.0 Technical Memorandum: Alternatives Development and Screening
- 3.3 Air Quality Documentation
 - Westbrook Amendment to the Sierra Vista Specific Plan Air Quality and Climate Change Analysis
 - Air Quality Emissions Calculations Comparison of Alternatives
 - Greenhouse Gas Emissions Calculations Comparison of Alternatives
- 3.4 Biological Resources Documentation
 - Effects of Changed Water Management Operations on Fisheries and Water Quality
 - Impacts Previously Disclosed in the Water Forum Proposal EIR
 - Summary of Impacts and Mitigation Measures in the Water Forum Proposal EIR
 - Biological Mitigation Plan
 - Waters of the U.S. Impact and Mitigation Data for the Study Area (1990 through 2011)
 - extracted from DA permit files (Prepared by the USACE, January 2012)
- 3.12 Traffic Noise Modeling
- 3.14 Westbrook EIS Transportation Analysis

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1.0-1 Regional Setting	1.0-3
1.0-2 Project Location.....	1.0-4
2.0-1 Potential Off-Site Alternatives	2.0-5
2.0-2 Proposed Action.....	2.0-8
2.0-3 Proposed Action Open Space Preserve	2.0-11
2.0-4 Proposed Drainage Improvements.....	2.0-14
2.0-5 Storm Water Channel Plan.....	2.0-15
2.0-6 No Action Alternative	2.0-20
2.0-7 Reduced Footprint/Increased Density Alternative	2.0-23
2.0-8 Reduced Footprint/Same Density Alternative	2.0-24
2.0-9 Central Preserve Alternative.....	2.0-25
2.0-10 One Acre Fill Alternative	2.0-26
2.0-11 Half Acre Fill Alternative	2.0-29
2.0-12 Placer Ranch Off-Site Alternative	2.0-30
2.0-13 Off-Site Alternative Storm Drainage Infrastructure	2.0-31
2.0-14 Off-Site Alternative Wastewater Infrastructure.....	2.0-32
3.0-1 Study Area for Cumulative Impacts.....	3.0-7
3.2-1 Proposed Action Farmland Map.....	3.2-7
3.2-2 Off-Site Alternative Farmland Map.....	3.2-10
3.3-1 Estimated Unmitigated Operational Emissions.....	3.3-27
3.3-2 Estimated Unmitigated Carbon Monoxide Emissions	3.3-28
3.4-1 Project Impact Area	3.4-3
3.4-2 On-Site Biological Communities.....	3.4-6
3.4-3 Project Site Jurisdictional Wetlands and Watersheds.....	3.4-17
3.4-4a Off-Site Alternative – Biological Communities and Waters of the US	3.4-22
3.4-4b Off-Site Alternative Infrastructure Corridors – Biological Communities and Waters of the US.....	3.4-23
3.4-5 Proposed Action – Waters of the US Impacts	3.4-44
3.4-6 Proposed On-Site Wetlands Creation.....	3.4-47
3.4-7 Alternatives 1 & 2 – Waters of the US Impacts	3.4-52
3.4-8 Alternative 3 – Waters of the US Impacts.....	3.4-53
3.4-9 Alternative 4 – Waters of the US Impacts.....	3.4-56
3.4-10 Alternative 5 – Waters of the US Impacts.....	3.4-59
3.4-11 Converted Vernal Pool Grassland in Cumulative Study Area Circa 2011	3.4-90
3.4-12 Converted Vernal Pool Grassland in Cumulative Study Area Circa 2060	3.4-95
3.7-1 Census Tract Locations.....	3.7-3
3.8-1 Regional Fault Map.....	3.8-3
3.8-2 Project Site and Off-Site Alternative Geology	3.8-4
3.8-3 Project Site Soils Map.....	3.8-7
3.10-1 Pre-Project 100-Year Floodplain.....	3.10-7
3.12-1 Noise Measurement Sites	3.12-5
3.13-1 Existing and Planned Fire Stations	3.13-3
3.13-2 Existing and Planned Schools and District Boundaries	3.13-4

LIST OF FIGURES (continued)

<u>Figure</u>	<u>Page</u>
3.14-1 Location of Project Site and Alternatives	3.14-3
3.14-2 Locations of Study Intersections.....	3.14-8
3.14-3 Existing Daily Traffic Volumes	3.14-9
3.14-4 Project Trip Distribution.....	3.14-22

LIST OF TABLES

<u>Table</u>		<u>Page</u>
ES-1	Proposed Action and Alternatives – Acreages by Land Use and Potential Waters of the U.S. Impacts	ES-3
ES-2	Summary of Effects for Major Topics	ES-9
2.0-1	Westbrook Residential Uses.....	2.0-7
2.0-2	Proposed Action Service and Utilities Providers.....	2.0-12
2.0-3	Utility Demand –Proposed Action and Alternatives.....	2.0-19
2.0-4	Proposed Action and Alternatives – Acreages by Land Use and Aquatic Resource Impacts	2.0-36
3.0-1	Present and Reasonably Foreseeable Actions in the Cumulative Study Area.....	3.0-9
3.2-1	Monetary Value of Placer County Agricultural Commodities by Industry (2010)	3.2-2
3.2-2	Top Agricultural Products in Placer County (2010)	3.2-2
3.2-3	1992–2008 Placer County Land Use Summary (in acres)	3.2-5
3.2-4	Agricultural Land	3.2-6
3.2-5	Farmland Impacts (Acres).....	3.2-11
3.3-1	Ambient Air Quality Standards.....	3.3-4
3.3-2	Placer County Attainment Status (Western Portion of County).....	3.3-6
3.3-3	Ambient Pollutant Concentrations Registered Nearest to the Project Site	3.3-50
3.3-4	Placer County Air Pollution Control District Significance Thresholds	3.3-16
3.3-5	Estimated Unmitigated Construction Emissions – Proposed Action and Alternatives	3.3-20
3.3-6	Estimated Mitigated Construction Emissions – Proposed Action and Alternatives.....	3.3-21
3.3-7	Estimated Unmitigated Operational Emissions – Proposed Action and Alternatives.....	3.3-51
3.3-8	Estimated Unmitigated Operational Emissions – Proposed Action.....	3.3-29
3.3-9	Other Present and Foreseeable Future Projects in Project Vicinity – Construction Emissions.....	3.3-37
3.3-10	Other Major DA Permit Projects in the Air Basin – Construction Emissions	3.3-38
3.3-11	Estimated Unmitigated Construction Emissions – Proposed Action and Alternatives	3.3-39
3.3-12	Estimated Mitigated Construction Emissions – Proposed Action and Alternatives	3.3-40
3.3-13	Estimated Unmitigated Operational Emissions – Proposed Action and Alternatives.....	3.3-41
3.3-14	Other Present and Reasonably Foreseeable Actions in Project Vicinity – Operational Emissions.....	3.3-42
3.3-15	Other Major DA Permit Projects in the Air Basin – Operational Emissions	3.3-43
3.3-16	Projected Population Growth, Traffic and Air Pollutant Emissions in the SACOG Region.....	3.3-44
3.3-17	General Conformity De Minimis Thresholds.....	3.3-46
3.3-18	Direct Average Annual Construction Emissions.....	3.3-48
3.4-1	Project Site Biological Communities	3.4-4
3.4-2	Project Impact Area Waters of the U.S. (in Acres)	3.4-7
3.4-3	Special-Status Plants with Potential to occur on the Project Site	v11
3.4-4	Special Status Wildlife Species with Potential to Occur on the Project Site	3.4-13
3.4-5	Listed Invertebrates Potential Habitat within Project Impact Area.....	3.4-16

LIST OF TABLES (continued)

<u>Table</u>	<u>Page</u>
3.4-6 Alternative Site and Off-Site Infrastructure Corridors, Biological Communities, and Waters of the U.S.....	3.4-24
3.4-7 Alternative Site Waters of the U.S. (in Acres)	3.4-26
3.4-8 Special-Status Plant and Wildlife Species with Potential to occur on the Alternative Site	3.4-28
3.4-9a Proposed Action Impacts to Waters of the U.S. (in Acres).....	3.4-49
3.4-9b Proposed Action Impacts and Mitigation Area Summary (in Acres).....	3.4-49
3.4-10 Alternatives 1 and 2 Impacts to Waters of the U.S. (in Acres)	3.4-51
3.4-11 Alternative 3 Impacts to Waters of the U.S. (in Acres)	3.4-54
3.4-12 Alternative 4 Impacts to Waters of the U.S. (in Acres)	3.4-57
3.4-13 Alternative 5 Impacts to Waters of the U.S. (in Acres)	3.4-58
3.4-14 Off-Site Alternative Impacts to the Waters of the U.S. (in Acres).....	3.4-60
3.4-15 Proposed Action Impacts to Listed Vernal Pool Invertebrate Habitat (in Acres).....	3.4-64
3.4-16 Alternatives 1 and 2 Impacts to Listed Vernal Pool Invertebrate Habitat (in Acres)	3.4-66
3.4-17 Alternative 3 Impacts to Listed Vernal Pool Invertebrate Habitat (in Acres)	3.4-67
3.4-18 Alternative 4 Impacts to Listed Vernal Pool Invertebrate Habitat (in Acres)	3.4-69
3.4-19 Alternative 5 Impacts to Listed Vernal Pool Invertebrate Habitat (in Acres)	3.4-70
3.4-20 Off-Site Alternative Approximate Impacts to Listed Invertebrate Habitat ¹ (in Acres).....	3.4-71
3.4-21 Waters of the U.S. Impacts and Mitigation (in Acres) based on Recent Permits Issued by the USACE in the Cumulative Study Area	3.4-92
3.4-22 Present and Reasonably Foreseeable Actions in the Study Area.....	3.4-93
3.4-23 Impacts to the Waters of the U.S. (Acres).....	3.4-97
3.5-1 Comparison of Global Pre-Industrial and Current GHG Concentrations	3.5-4
3.5-2 Top Five GHG Producer Countries and the European Union (Annual).....	3.5-5
3.5-3 GHG Emissions in California.....	3.5-6
3.5-4 Estimated Construction GHG Emissions – Alternatives.....	3.5-14
3.5-5 Estimated Construction GHG Emissions – Proposed Action	3.5-15
3.5-6 Estimated Operational GHG Emissions – Alternatives.....	3.5-17
3.5-7 Estimated Operational GHG Emissions – Proposed Action	3.5-18
3.7-1 Study Area Demographics	3.7-2
3.7-2 Income and Poverty Status.....	3.7-4
3.8-1 Overview of Project Site Soils	3.8-19
3.8-2 City General Plan Guidance for Geologic Hazards	3.8-10
3.9-1 General Plan Safety Element Policies	3.9-9
3.10-1 Designated Beneficial Uses and Listed Water Quality Impairments in Project Area.....	3.10-3
3.10-2 Development Footprint	3.10-16
3.10-3 Pre- and Post-Project (Buildout) Peak Storm Flows, With and Without Stormwater Measures.....	3.10-19
3.10-4 Pre- and Post-Project Water Surface Elevations.....	3.10-20
3.12-1 Existing Traffic Noise Levels.....	3.12-3
3.12-2 Summary of McClellan Overflight Individual Aircraft Noise Levels	3.12-4
3.12-3 Existing Ambient Noise Levels.....	3.12-6
3.12-4 City of Roseville Maximum Allowable Noise Exposure for Transportation Noise Sources	3.12-8
3.12-5 City of Roseville Performance Standards for Non-Transportation Noise Sources.....	3.12-9

LIST OF TABLES (continued)

<u>Table</u>	<u>Page</u>
3.12-6 Typical Construction Equipment Noise	3.12-10
3.12-7 Year 2025 + Project Traffic Noise Levels at Proposed Residential Uses	3.12-21
3.12-8 Year 2025 Traffic Noise Levels under Background plus Proposed Action Conditions.....	3.12-23
3.12-9 Year 2025 Traffic Noise Levels at Off-Site Alternative	3.12-24
3.13-1 Relevant City of Roseville General Plan Goals and Policies	3.13-7
3.14-1 Level of Service Definitions at Signalized Intersections.....	3.14-5
3.14-2 Level of Service Definitions at Unsignalized Intersections	3.14-6
3.14-3 Level of Service Definitions on Roadway Segments	3.14-6
3.14-4 Study Area Signalized Intersections – Existing Levels of Service	3.14-10
3.14-5 Study Area Roadway Segments – Existing Levels of Service	3.14-11
3.14-6 Average Daily Traffic Volumes and LOS on State Highways – Existing Conditions	3.14-12
3.14-7 Land Use Assumptions for Proposed Action and Alternatives.....	3.14-19
3.14-8 Proposed Action and Alternatives Trip Generation.....	3.14-19
3.14-9 Level of Service at Roseville Signalized Intersections – 2025 CIP Plus Project Alternative Conditions – AM Peak Hour.....	3.14-33
3.14-10 Level of Service at Roseville Signalized Intersections– 2025 CIP Plus Project Alternative Conditions – PM Peak Hour	3.14-35
3.15-1 Potable Water Demand at Buildout (Acre-Feet Per Year).....	3.15-20
3.15-2 Average Dry Weather Flow at Buildout (mgd)	3.15-21
3.15-3 Solid Waste Generation, Diversion, and Disposal at Buildout	3.15-22
3.15-4 Potable Water Demand at Buildout (Acre-Feet Per Year).....	3.15-46
3.15-5 Cumulative Water Demand	3.15-47
3.15-6 Cumulative Water Demand in 2035	3.15-49
4.0-1 Employment Growth.....	4.0-4
4.0-2 Compliance with Applicable Laws, Policies, Plans, and Permit Requirements	4.0-15