



# DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

## WHITTIER NARROWS DAM BASIN RECREATION AREA MASTER DEVELOPMENT PLAN INPUT

STATE CLEARINGHOUSE NO. 2009111101

Prepared for | Watershed Conservation Authority  
100 N. Old San Gabriel Canyon Road  
Azusa, California 91702

Prepared by | BonTerra Consulting  
3452 East Foothill Boulevard, Suite 420  
Pasadena, California 91107  
T: (626) 351-2000 F: (626)351-2030

November 2010

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>Section 1.0 Executive Summary .....</b>	<b>ES-1</b>
1.1 Introduction .....	ES-1
1.2 Project Summary .....	ES-2
1.2.1 <i>Project Location</i> .....	ES-2
1.2.2 <i>Proposed Project</i> .....	ES-3
1.3 Project Alternatives .....	ES-5
1.4 Issues to be Resolved .....	ES-5
1.5 Areas of Controversy .....	ES-6
1.6 Summary of Significant Environmental Impacts .....	ES-11
1.7 Mitigation Monitoring .....	ES-12
 <b>Section 2.0 Introduction .....</b>	 <b>2-1</b>
2.1 Purpose and Type of this EIR .....	2-1
2.2 EIR Focus .....	2-4
2.2.1 <i>Issues Addressed in the EIR</i> .....	2-4
2.2.2 <i>Environmental Analysis</i> .....	2-4
2.2.3 <i>Level of Analysis</i> .....	2-8
2.2.4 <i>Incorporation by Reference</i> .....	2-8
2.2.5 <i>Basis for Cumulative Impact Analysis</i> .....	2-8
2.3 Project Sponsors and Contact Persons .....	2-10
2.4 Public Review of the Draft EIR .....	2-11
2.5 References .....	2-12
 <b>Section 3.0 Environmental Setting .....</b>	 <b>3-1</b>
3.1 Project Location .....	3-1
3.2 Historical Context .....	3-1
3.2.1 <i>Flood Risk Management and Water Conservation</i> .....	3-2
3.3 Project Setting and Characteristics .....	3-2
3.3.1 <i>Existing Facilities and Land Uses</i> .....	3-2
3.3.2 <i>Regional and Local Setting</i> .....	3-4
3.3.3 <i>Local Jurisdictions and Responsible Agencies</i> .....	3-10
3.4 Applicable Local and Regional Plans .....	3-11
3.4.1 <i>United States Army Corps of Engineers</i> .....	3-11
3.4.2 <i>Regional Plans</i> .....	3-11
3.4.3 <i>Cities</i> .....	3-13
3.5 References .....	3-14

**TABLE OF CONTENTS  
 (Continued)**

<u>Section</u>	<u>Page</u>
<b>Section 4.0 Project Description .....</b>	<b>4-1</b>
4.1 Project Background .....	4-1
4.1.1 <i>Planning Process</i> .....	4-1
4.1.2 <i>Community Outreach Strategy</i> .....	4-2
4.2 Project Objectives .....	4-3
4.2.1 <i>1996 Master Plan Objectives</i> .....	4-3
4.2.2 <i>Master Plan Development Input Objectives</i> .....	4-4
4.3 Project Description .....	4-6
4.3.1 <i>Planning Framework</i> .....	4-6
4.3.2 <i>Administrative and Operational Project Components</i> .....	4-7
4.3.3 <i>Proposed Facilities and Improvements</i> .....	4-9
4.3.4 <i>Projects Previously Anticipated</i> .....	4-16
4.3.5 <i>Project Implementation</i> .....	4-18
4.4 Development Approval Process .....	4-19
4.4.1 <i>Limitations</i> .....	4-19
4.4.2 <i>Implementation Process</i> .....	4-20
4.5 Intended Use of the EIR .....	4-20
4.5.1 <i>Primary Discretionary Actions</i> .....	4-20
4.5.2 <i>Responsible and Trustee Agencies</i> .....	4-20
4.5.3 <i>Future Environmental Review</i> .....	4-22
4.6 References .....	4-23
 <b>Section 5.0 Environmental Setting, Thresholds of Significance, Environmental Impacts,          Mitigation Program, Cumulative Impacts, and Level of Significance          After Mitigation .....</b>	 <b>5-1</b>
5.1 Aesthetics .....	5.1-1
5.1.1 <i>Methodology</i> .....	5.1-1
5.1.2 <i>Existing Conditions</i> .....	5.1-1
5.1.3 <i>Thresholds of Significance</i> .....	5.1-2
5.1.4 <i>Environmental Impacts</i> .....	5.1-2
5.1.5 <i>Cumulative Impacts</i> .....	5.1-6
5.1.6 <i>Mitigation Program</i> .....	5.1-7
5.1.7 <i>Level of Significance after Mitigation</i> .....	5.1-7
5.1.8 <i>References</i> .....	5.1-8
5.2 Agriculture and Forest Resources .....	5.2-1
5.2.1 <i>Methodology</i> .....	5.2-1
5.2.2 <i>Existing Conditions</i> .....	5.2-1
5.2.3 <i>Thresholds of Significance</i> .....	5.2-3
5.2.4 <i>Environmental Impacts</i> .....	5.2-4
5.2.5 <i>Cumulative Impacts</i> .....	5.2-6
5.2.6 <i>Mitigation Measures</i> .....	5.2-6
5.2.7 <i>Level of Significance after Mitigation</i> .....	5.2-6
5.2.8 <i>References</i> .....	5.2-7

**TABLE OF CONTENTS  
 (Continued)**

<u>Section</u>		<u>Page</u>
5.3	Air Quality .....	5.3-1
	5.3.1 Methodology .....	5.3-1
	5.3.2 Existing Conditions .....	5.3-1
	5.3.3 Thresholds of Significance.....	5.3-14
	5.3.4 Environmental Impacts .....	5.3-14
	5.3.5 Cumulative Impacts .....	5.3-22
	5.3.6 Mitigation Program.....	5.3-23
	5.3.7 Level of Significance after Mitigation .....	5.3-24
	5.3.8 References.....	5.3-25
5.4	Biological Resources .....	5.4-1
	5.4.1 Methodology .....	5.4-1
	5.4.2 Existing Conditions .....	5.4-1
	5.4.3 Thresholds of Significance.....	5.4-13
	5.4.4 Environmental Impacts .....	5.4-14
	5.4.5 Cumulative Impacts .....	5.4-21
	5.4.6 Mitigation Program.....	5.4-22
	5.4.7 Level of Significance After Mitigation .....	5.4-23
	5.4.8 References.....	5.4-24
5.5	Cultural Resources .....	5.5-1
	5.5.1 Methodology .....	5.5-1
	5.5.2 Existing Conditions .....	5.5-1
	5.5.3 Thresholds of Significance.....	5.5-9
	5.5.4 Environmental Impacts .....	5.5-9
	5.5.5 Cumulative Impacts .....	5.5-12
	5.5.6 Mitigation Program.....	5.5-13
	5.5.7 Level of Significance After Mitigation .....	5.5-14
	5.5.8 References.....	5.5-15
5.6	Geology and Soils.....	5.6-1
	5.6.1 Methodology .....	5.6-1
	5.6.2 Existing Conditions .....	5.6-1
	5.6.3 Thresholds of Significance.....	5.6-6
	5.6.4 Environmental Impacts .....	5.6-7
	5.6.5 Cumulative Impacts .....	5.6-13
	5.6.6 Mitigation Program.....	5.6-14
	5.6.7 Level of Significance after Mitigation .....	5.6-14
	5.6.8 References.....	5.6-15
5.7	Hazards and Hazardous Materials .....	5.7-1
	5.7.1 Methodology .....	5.7-1
	5.7.2 Existing Conditions .....	5.7-1
	5.7.3 Thresholds of Significance.....	5.7-14
	5.7.4 Environmental Impacts .....	5.7-14
	5.7.5 Cumulative Impacts .....	5.7-22
	5.7.6 Mitigation Program.....	5.7-23
	5.7.7 Level of Significance after Mitigation .....	5.7-23
	5.7.8 References.....	5.7-24

## TABLE OF CONTENTS (Continued)

<u>Section</u>		<u>Page</u>
5.8	Hydrology and Water Quality.....	5.8-1
	5.8.1 Methodology .....	5.8-1
	5.8.2 Existing Conditions .....	5.8-1
	5.8.3 Thresholds of Significance.....	5.8-16
	5.8.4 Environmental Impacts .....	5.8-17
	5.8.5 Cumulative Impacts .....	5.8-30
	5.8.6 Mitigation Program.....	5.8-32
	5.8.7 Level of Significance After Mitigation .....	5.8-32
	5.8.8 References.....	5.8-33
5.9	Land Use and Planning .....	5.9-1
	5.9.1 Methodology .....	5.9-1
	5.9.2 Existing Conditions .....	5.9-1
	5.9.3 Thresholds of Significance.....	5.9-8
	5.9.4 Environmental Impacts .....	5.9-8
	5.9.5 Cumulative Impacts .....	5.9-13
	5.9.6 Mitigation Measures.....	5.9-14
	5.9.7 Level of Significance After Mitigation .....	5.9-14
	5.9.8 References.....	5.9-15
5.10	Mineral Resources.....	5.10-1
	5.10.1 Methodology .....	5.10-1
	5.10.2 Existing Conditions .....	5.10-1
	5.10.3 Thresholds of Significance.....	5.10-3
	5.10.4 Environmental Impacts .....	5.10-3
	5.10.5 Cumulative Impacts .....	5.10-4
	5.10.6 Mitigation Measures.....	5.10-5
	5.10.7 Level of Significance After Mitigation .....	5.10-5
	5.10.8 References.....	5.10-6
5.11	Noise .....	5.11-1
	5.11.1 Methodology .....	5.11-1
	5.11.2 Existing Conditions .....	5.11-1
	5.11.3 Thresholds of Significance.....	5.11-10
	5.11.4 Environmental Impacts .....	5.11-10
	5.11.5 Cumulative Impacts .....	5.11-19
	5.11.6 Mitigation Program.....	5.11-20
	5.11.7 Level of Significance after Mitigation .....	5.11-21
	5.11.8 References.....	5.11-22
5.12	Population and Housing.....	5.12-1
	5.12.1 Methodology .....	5.12-1
	5.12.2 Existing Conditions .....	5.12-1
	5.12.3 Thresholds of Significance.....	5.12-3
	5.12.4 Environmental Impacts .....	5.12-3
	5.12.5 Cumulative Impacts .....	5.12-4
	5.12.6 Mitigation Program.....	5.12-4
	5.12.7 Level of Significance after Mitigation .....	5.12-4
	5.12.8 References.....	5.12-5

## TABLE OF CONTENTS (Continued)

<u>Section</u>		<u>Page</u>
5.13	Public Services .....	5.13-1
	5.13.1 Methodology .....	5.13-1
	5.13.2 Existing Conditions .....	5.13-1
	5.13.3 Thresholds of Significance.....	5.13-3
	5.13.4 Environmental Impacts .....	5.13-4
	5.13.5 Cumulative Impacts .....	5.13-6
	5.13.6 Mitigation Program.....	5.13-8
	5.13.7 Level of Significance after Mitigation .....	5.13-8
	5.13.8 References.....	5.13-9
5.14	Parks and Recreation .....	5.14-1
	5.14.1 Methodology .....	5.14-1
	5.14.2 Existing Conditions .....	5.14-1
	5.14.3 Thresholds of Significance.....	5.14-3
	5.14.4 Environmental Impacts .....	5.14-3
	5.14.5 Cumulative Impacts .....	5.14-5
	5.14.6 Mitigation Program.....	5.14-5
	5.14.7 Level of Significance after Mitigation .....	5.14-6
	5.14.8 References.....	5.14-7
5.15	Transportation.....	5.15-1
	5.15.1 Methodology .....	5.15-1
	5.15.2 Existing Conditions .....	5.15-3
	5.15.3 Thresholds of Significance.....	5.15-11
	5.15.4 Environmental Impacts .....	5.15-12
	5.15.1 Cumulative Impacts .....	5.15-26
	5.15.2 Mitigation Program.....	5.15-26
	5.15.3 Level of Significance After Mitigation .....	5.15-27
	5.15.4 References.....	5.15-28
5.16	Utilities and Service Systems .....	5.16-1
	5.16.1 Methodology .....	5.16-1
	5.16.2 Existing Conditions .....	5.16-1
	5.16.3 Thresholds of Significance.....	5.16-17
	5.16.4 Environmental Impacts .....	5.16-18
	5.16.5 Cumulative Impacts .....	5.16-31
	5.16.6 Mitigation Program.....	5.16-32
	5.16.7 Level of Significance After Mitigation .....	5.16-32
	5.16.8 References.....	5.16-33
5.17	Greenhouse Gas Emissions.....	5.17-1
	5.17.1 Methodology .....	5.17-1
	5.17.2 Existing Conditions .....	5.17-1
	5.17.3 Thresholds of Significance.....	5.17-14
	5.17.4 Environmental Impacts .....	5.17-14
	5.17.5 Cumulative Impacts .....	5.17-18
	5.17.6 Mitigation Program.....	5.17-18
	5.17.7 Level of Significance After Mitigation .....	5.17-18
	5.17.8 References.....	5.17-19

**TABLE OF CONTENTS  
(Continued)**

<b><u>Section</u></b>		<b><u>Page</u></b>
<b>Section 6.0 Alternatives to the Proposed Project.....</b>		<b>6-1</b>
6.1	Introduction .....	6-1
6.1.1	<i>Project Summary</i> .....	6-1
6.1.2	<i>Project Objectives</i> .....	6-1
6.1.3	<i>Alternatives to the Proposed Project</i> .....	6-2
6.2	Alternatives Eliminated From Detailed Consideration .....	6-3
6.2.1	<i>Off-Site Alternative Sites</i> .....	6-3
6.2.2	<i>Initial MDPI Proposal</i> .....	6-4
6.3	Alternatives Carried Forward for Detailed Consideration .....	6-5
6.3.1	<i>No Project/No Action Alternative</i> .....	6-5
6.3.2	<i>Current Master Plan Alternative</i> .....	6-9
6.3.3	<i>Reduced Facilities Alternative</i> .....	6-13
6.3.4	<i>Conservation Only Alternative</i> .....	6-16
6.4	Environmentally Superior Alternative.....	6-20
6.5	References .....	6-21
<b>Section 7.0 Long-Term Implications of the Proposed Project .....</b>		<b>7-1</b>
7.1	Any Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented.....	7-1
7.2	Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented.....	7-1
7.3	Growth-Inducing Impacts of the Proposed Action .....	7-2
<b>Section 8.0 List of EIR Preparers and Contributors .....</b>		<b>8-1</b>
8.1	EIR Preparers .....	8-1
8.2	Contributors .....	8-1
<b>Section 9.0 List of Acronyms and Abbreviations.....</b>		<b>9-1</b>

## LIST OF TABLES

<u>Table</u>	<u>Page</u>
1-1	Proposed Facilities and Improvements ..... ES-3
1-2	Summary of Environmental Impacts and Mitigation Program ..... ES-13
3-1	Existing Land Uses and Facilities..... 3-3
4-1	Resource Objectives ..... 4-5
4-2	Proposed Facilities and Improvements ..... 4-9
4-3	Comparison of Projects in the MDPI and the 1996 Master Plan ..... 4-17
5.3-1	California and National Ambient Air Quality Standards ..... 5.3-5
5.3-2	Ambient Air Quality at Pico Rivera and Central Los Angeles Monitoring Stations. 5.3-11
5.3-3	Attainment Status of Criteria Pollutants in the South Coast Air Basin..... 5.3-13
5.3-4	SCAQMD Air Quality Significance Thresholds..... 5.3-17
5.6-1	Modified Mercalli Intensity Scale ..... 5.6-9
5.8-1	Beneficial Uses of Receiving Waters ..... 5.8-14
5.8-2	Subwatershed Hydrology Results ..... 5.8-25
5.9-1	Existing Facilities..... 5.9-6
5.11-1	California Land Use Compatibility Guidelines ..... 5.11-4
5.11-2	County of Los Angeles Mobile Equipment Noise Limits ..... 5.11-5
5.11-3	County of Los Angeles Stationary Equipment Noise Limits ..... 5.11-6
5.11-4	County of Los Angeles Exterior Noise Standards ..... 5.11-6
5.11-5	Vibration Thresholds for Structural Damage ..... 5.11-8
5.11-6	Human Response to Transient Vibration ..... 5.11-8
5.11-7	Typical Maximum Construction Equipment Noise Levels ..... 5.11-15
5.11-8	Typical Vibration Levels During Construction Activities ..... 5.11-18
5.12-1	Existing and Future Population Projections: 2010–2030..... 5.12-1
5.12-2	Existing and Future Household Projections: 2010–2030 ..... 5.12-2
5.12-3	Existing and Future Employment Projections: 2010–2030..... 5.12-2
5.15-1	Level of Service Definitions ..... 5.15-2
5.15-2	Existing Intersection of Service Analysis..... 5.15-7
5.15-3	Existing (2010) Conditions Street Segment PM Peak Hour Level of Service Analysis..... 5.15-7
5.15-4	Trip Generation Estimates..... 5.15-15
5.15-5	Existing Plus Ambient Plus Project (2030) Intersection Level of Service Analysis..... 5.15-18
5.15-6	County Significance Criteria ..... 5.15-18
5.15-7	Existing Plus Ambient Plus Project (2030) Street Segment PM Peak Hour Level of Service Analysis ..... 5.15-19
5.15-8	Cumulative Plus Project (2030) Intersection Level of Service Analysis (Draft) .... 5.15-19
5.15-9	Cumulative Plus Project (2030) Street Segment Pm Peak Hour Level of Service Analysis ..... 5.15-20
5.16-1	CSMD Sanitary Sewer Facilities ..... 5.16-8
5.16-2	LACSD Trunk Sewers ..... 5.16-10
5.16-3	SGVWC Potable Water Lines and Facilities ..... 5.16-12
5.16-4	SGVWC Reclaimed Water Lines and Facilities..... 5.16-13
5.16-5	Electrical Power Facilities..... 5.16-14
5.16-6	Natural Gas Facilities ..... 5.16-16
5.16-7	Amphitheatre Sewage Generation ..... 5.16-23
5.16-8	Potable Water Demand ..... 5.16-26
5.16-9	Reclaimed Water Demand ..... 5.16-27
5.16-10	Existing and Proposed Sewage Flows ..... 5.16-28

**LIST OF TABLES  
(Continued)**

<u>Table</u>	<u>Page</u>
5.17-1 Global Warming Potentials and Atmospheric Lifetimes .....	5.17-3
5.17-2 AB 32 Scoping Plan Recommended Greenhouse Gas Reduction Measures.....	5.17-9
5.17-3 Comparison of Worldwide GHG Emissions.....	5.17-13

**LIST OF FIGURES**

<u>Figure</u>	<u>Follows Page</u>
3-1 Regional Location and Local Vicinity.....	3-2
3-2 Adjacent Jurisdictions.....	3-2
3-3 Existing Recreation Use Areas.....	3-2
3-4 1996 Master Plan Land Classification Plan.....	3-4
4-1 Planning Framework .....	4-8
4-2 Existing and Proposed Facilities .....	4-10
5.4-1 Significant Ecological Areas – Regional Scale.....	5.4-4
5.4-2 Significant Ecological Areas – Project Scale.....	5.4-4
5.4-3 Vegetation Types .....	5.4-6
5.4-4 Biological Opportunities.....	5.4-14
5.6-1 Soil Associations .....	5.6-4
5.6-2 Alquist-Priolo Earthquake Fault Zone.....	5.6-6
5.6-3 Liquefaction Hazards .....	5.6-10
5.7-1 Hazardous Material Sites .....	5.7-10
5.7-2 Oil and Gas Wells.....	5.7-12
5.8-1 Water Bodies.....	5.8-12
5.8-2 Storm Drains and Runoff Flows .....	5.8-12
5.8-3 Main San Gabriel Groundwater Basin.....	5.8-14
5.8-4 Groundwater Levels .....	5.8-14
5.8-5 Floodplains.....	5.8-16
5.8-6 Dam Inundation Areas.....	5.8-16
5.8-7 Drainage Patterns .....	5.8-24
5.8-8 Conservation Pool Inundation Areas.....	5.8-32
5.9-1 Land Use Plan.....	5.9-4
5.9-2 Zoning .....	5.9-4
5.9-3 Existing Facilities.....	5.9-6
5.9-4 Leases, Inholdings, and Easements .....	5.9-8
5.11-1 Typical Noise Levels and Their Subjective Loudness and Effects .....	5.11-2
5.11-2 Common Vibration Sources and Typical Human and Structural Responses .....	5.11-4
5.14-1 Emerald Necklace .....	5.14-2
5.15-1 Project Site and Analyzed Locations.....	5.15-2
5.15-2 Existing Conditions Peak Hour Traffic Volumes.....	5.15-8
5.15-3 Entrance Points.....	5.15-8
5.15-4 Project Only Conditions Peak Hour Traffic Volumes.....	5.15-14
5.15-5 Existing Plus Ambient Growth (Year 2030) Plus Project Conditions – Peak Hour Volumes .....	5.15-18
5.15-6 Cumulative Plus Project (Year 2030) Conditions Peak Hour Traffic Volumes .....	5.15-20
5.16-1 LACSD Facilities .....	5.16-10

## **APPENDICES**

- A – Notice of Preparation and Mailing List
- B – Notice of Preparation Comments
- C - Scoping Meeting
- D – Biological Assessment
- E – Hazardous Material Records Search
- F – Water and Utility Resources Report
- G – Public Service Letter
- H – Traffic Study

## **CD CONTENTS**

- Draft Master Development Plan Input
- Draft Program Environmental Impact Report
- Appendices

*This page intentionally left blank*