

# BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT

## TABLE OF CONTENTS

	<u>PAGE</u>
<b>EXECUTIVE SUMMARY</b> .....	ES-1
<b>A. INTRODUCTION</b>	
A.1 Purpose and Authority .....	A-1
A.2 CPUC Regulatory Authority .....	A-1
A.3 Lead and Responsible Agencies .....	A-2
A.4 Project Background.....	A-2
A.5 Overview of the EIR Process .....	A-6
A.6 CPUC Application Process .....	A-8
A.7 Public Participation .....	A-10
A.8 Focus of Analysis.....	A-12
A.9 EIR Content and Organization.....	A-12
<b>B. PROJECT DESCRIPTION</b>	
B.1 Introduction.....	B-1
B.2 Project Overview .....	B-1
B.3 Project Location .....	B-2
B.4 Project Applicant .....	B-2
B.5 Project Objectives .....	B-5
B.6 Project Components .....	B-6
B.6.1 Domestic Water Transmission Line.....	B-6
B.6.2 On-site Water Facilities .....	B-16
B.6.3 Wastewater Collection Facilities.....	B-20
B.7 Project Construction.....	B-24
B.7.1 Domestic Water Transmission Line.....	B-24
B.7.2 On-site Water Facilities .....	B-35
B.7.3 Wastewater Collection Facilities.....	B-36
B.8 Operation and Maintenance .....	B-36
B.8.1 Domestic Water Transmission Line.....	B-36
B.8.2 On-site Water Facilities .....	B-37
B.8.3 Wastewater Collection Facilities.....	B-37
B.9 Intended Uses of the EIR and Anticipated Agency Actions.....	B-37
B.10 References .....	B-38
<b>C. ENVIRONMENTAL IMPACT ANALYSIS</b> .....	C-1
C.1 Air Quality.....	C.1-1
C.1.1 Environmental Baseline and Regulatory Setting .....	C.1-1
C.1.2 Environmental Impacts and Mitigation Measures.....	C.1-8
C.1.3 References .....	C.1-14
C.2 Noise.....	C.2-1
C.2.1 Environmental Baseline and Regulatory Setting .....	C.2-1
C.2.2 Environmental Impacts and Mitigation Measures.....	C.2-9
C.2.3 References .....	C.2-13
C.3 Traffic and Circulation.....	C.3-1

# **BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT**

## **TABLE OF CONTENTS**

	<u>PAGE</u>
C.3.1	Environmental Baseline and Regulatory Setting ..... C.3-1
C.3.2	Environmental Impacts and Mitigation Measures..... C.3-10
C.4	Environmental Contamination ..... C.4-1
C.4.1	Environmental Baseline and Regulatory Setting ..... C.4-1
C.4.2	Environmental Impacts and Mitigation Measures..... C.4-7
C.4.3	References ..... C.4-11
C.5	Geology and Soils ..... C.5-1
C.5.1	Environmental Baseline and Regulatory Setting ..... C.5-1
C.5.2	Environmental Impacts and Mitigation Measures..... C.5-8
C.5.3	References ..... C.5-13
C.6	Hydrology and Water Quality ..... C.6-1
C.6.1	Environmental Baseline and Regulatory Setting ..... C.6-1
C.6.2	Environmental Impacts and Mitigation Measures..... C.6-14
C.6.3	References ..... C.6-19
C.7	Cultural Resources ..... C.7-1
C.7.1	Environmental Baseline and Regulatory Setting ..... C.7-1
C.7.2	Environmental Impacts and Mitigation Measures..... C.7-13
C.7.3	Bibliography..... C.7-17
C.8	Biological Resources ..... C.8-1
C.8.1	Environmental Baseline and Regulatory Setting ..... C.8-1
C.8.2	Environmental Impacts and Mitigation Measures..... C.8-6
C.8.3	References ..... C.8-9
C.9	Land Use and Recreation..... C.9-1
C.9.1	Environmental Baseline and Regulatory Setting..... C.9-1
C.9.2	Environmental Impacts and Mitigation Measures..... C.9-14
C.9.3	References ..... C.9-17
C.10	Public Services and Utilities ..... C.10-1
C.10.1	Environmental Baseline and Regulatory Setting ..... C.10-1
C.10.2	Environmental Impacts and Mitigation Measures..... C.10-12
C.10.3	References ..... C.10-18
<b>D.</b>	<b>ALTERNATIVES DESCRIPTION AND COMPARISON</b>
D.1	Alternatives Process Overview ..... D-1
D.2	Alternatives Selected For Comparative Evaluation..... D-10
D.3	No Project Alternative ..... D-14
D.4	Comparative Impact Analysis of Alternatives ..... D-15
D.5	Conclusion..... D-42
D.6	References ..... D-42
<b>E.</b>	<b>EFFECTS OF WATER DISTRIBUTION AND WASTEWATER COLLECTION FACILITIES</b>
E.1	Air Quality..... E-1
E.2	Noise..... E-3
E.3	Traffic and Circulation..... E-4
E.4	Environmental Contamination ..... E-5

# **BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT**

---

## **TABLE OF CONTENTS**

	<u>PAGE</u>
E.5 Geology and Soils .....	E-6
E.6 Hydrology and Water Quality .....	E-7
E.7 Cultural Resources .....	E-8
E.8 Biological Resources .....	E-10
E.9 Land Use and Recreation .....	E-12
E.10 Public Services and Utilities .....	E-13
<b>F. OTHER CEQA CONSIDERATIONS</b>	
F.1 Growth-Inducing Effects .....	F-1
F.2 Significant Irreversible Environmental Changes .....	F-2
F.3 Cumulative Impacts .....	F-3
<b>G. LIST OF PREPARERS</b> .....	G-1
<b>H. PERSONS AND ORGANIZATIONS CONSULTED</b> .....	H-1
<b>I. GLOSSARY OF TERMS AND ACRONYMS</b> .....	I-1
<b>J. COMMENTS AND RESPONSES</b> .....	J-1
<b>K. MITIGATION MONITORING COMPLIANCE AND REPORTING PROGRAM</b> .....	K-1
K.1 Introduction .....	K-1
K.2 The Monitoring Strategy in Overview .....	K-1
K.3 Mitigation Monitoring, Compliance, and Reporting Procedures .....	K-2
K.4 Mitigation Monitoring Program .....	K-17

## **APPENDICES**

- Appendix 1: Pipeline Route Segment Maps
- Appendix 2: Notice of Preparation (NOP) and Initial Study
- Appendix 3: Public Involvement Documentation
- Appendix 4: Air Quality Calculations
- Appendix 5: Storm and Dry Weather Monitoring: Huntington Watershed and Huntington Harbour

# BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT

## TABLE OF CONTENTS

		<u>PAGE</u>
<b>LIST OF TABLES</b>		
ES-1	Summary of Project Components .....	ES-2
ES-2	Summary of Impacts and Mitigation Measures .....	ES-9
B.6-1	Detailed Route Description .....	B-10
B.7-1	Pipeline Construction Schedule.....	B-26
B.7-2	Equipment Inventory.....	B-27
B.7-3	Pipe Jacking Locations .....	B-33
B.9-1	Required Permits and Approvals .....	B-38
C.1-1	Monthly Temperatures and Precipitation .....	C.1-1
C.1-2	National and California Ambient Air Quality Standards .....	C.1-4
C.1-3	Summary of Health Effects of the Major Criteria Pollutants .....	C.1-5
C.1-4	Attainment Status of South Coast Air Basin.....	C.1-5
C.1-5	Air Quality Summary .....	C.1-6
C.1-6	SCAQMD Threshold of Significance for Construction Emission.....	C.1-9
C.1-7	SCAQMD Thresholds of Significance for Operational Emissions.....	C.1-9
C.1-8	Applicant Proposed Measures for Air Quality .....	C.1-10
C.1-9	Maximum Daily Pipeline Construction Emissions .....	C.1-11
C.1-10	Quarterly Pipeline Construction Emissions.....	C.1-11
C.1-11	Impact and Mitigation Summary – Air Quality .....	C.1-14
C.2-1	Typical Sound Levels Measured in the Environment and Industry .....	C.2-1
C.2-2	Measured Ambient Noise Levels Along the Proposed Pipeline Route .....	C.2-4
C.2-3	Sensitive Receptors Along the Proposed Pipeline Route .....	C.2-6
C.2-4	Summary of Noise Levels Identified as Requisite to Protect Public Health and Welfare With an Adequate Margin of Safety .....	C.2-6
C.2-5	Land Use Compatibility for Community Noise Environment.....	C.2-7
C.2-6	Local Agency Ordinance Limits by Land Use .....	C.2-8
C.2-7	Applicant Proposed Measures for Noise .....	C.2-10
C.2-8	Noise Emission Characteristics of Construction Equipment .....	C.2-11
C.2-9	Impact and Mitigation Summary – Noise .....	C.2-13
C.3-1	Impact and Mitigation Summary – Traffic and Circulation .....	C.3-19
C.4-1	Contaminated Properties Impact Criteria .....	C.4-3
C.4-2	Hazardous Waste Sites With Potential To Impact the Proposed Project .....	C.4-4
C.4-3	Impact and Mitigation Summary – Environmental Contamination.....	C.4-11
C.5-1	Significant Active Faults .....	C.5-3
C.5-2	Modified Mercalli Scale .....	C.5-4
C.5-3	Historic Earthquakes .....	C.5-7
C.5-4	Impact and Mitigation Measure Summary – Geology and Soils.....	C.5-13
C.6-1	Daily Precipitation Data from Santa Ana, PRFD Station #121 .....	C.6-2
C.6-2	Expected Value Discharges for Bolsa Chica Channel (CO <sub>2</sub> ), San Diego Freeway to Cerritos Avenue.....	C.6-7
C.6-3	Expected Value Discharges for Bolsa Chica Channel (CO <sub>2</sub> ) San Diego Freeway to Huntington Harbor Outlet .....	C.6-7
C.6-4	Discharges for Anaheim-Barber City Channel.....	C.6-8

# **BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT**

---

## **TABLE OF CONTENTS**

PAGE

### **LIST OF TABLES (continued)**

C.6-5	Impact and Mitigation Summary – Hydrology and Water Quality .....	C.6-19
C.7-1	Refined Coastal Chronology as Defined by Mason and Peterson (1994) .....	C.7-3
C.7-2	Impact and Mitigation Summary – Cultural Resources .....	C.7-17
C.8-1	Impact and Mitigation Summary – Biological Resources.....	C.8-9
C.9-1	Waterline Length by Jurisdiction.....	C.9-2
C.9-2	Jurisdiction by Population and Median Income .....	C.9-2
C.9-3	Impact and Mitigation Summary – Land Use .....	C.9-16
C.10-1	Fire Stations Serving The Project Area .....	C.10-2
C.10-2	Police Departments by City .....	C.10-4
C.10-3	Schools and School Districts in the Proposed Project Area .....	C.10-5
C.10-4	Libraries in the Proposed Project Area .....	C.10-7
C.10-5	Utilities Adjacent to the Proposed Route Alignment by Segment .....	C.10-10
C.10-6	Impact and Mitigation Summary – Public Service and Utilities .....	C.10-18
D.1-1	Alternatives Screening Recommendations .....	D-4
D.4-1	Measured Ambient Noise Levels Along the Anaheim-Barber City Channel Diagonal Alternative Route .....	D-19
D.4-2	Sensitive Receptors Along Anaheim-Barber City Channel Diagonal Alternative Route ...	D-20
D.4-3	Anaheim-Barber City Channel Diagonal Alternative Hazardous Waste Sites With Potential to Impact the Project .....	D-24
D.4-4	Measured Ambient Noise Levels Along the Springdale Street/Graham Street Route .....	D-28
D.4-5	Sensitive Receptors Along the Springdale Street/Graham Street Route .....	D-28
D.4-6	Springdale Street/Graham Street Alternative Hazardous Waste Sites With Potential to Impact the Project .....	D-33
D.4-7	Measured Ambient Noise Levels Along the North Seal Beach Wellfields Route.....	D-37
D.4-8	Sensitive Receptors Along the North Seal Beach Wellfields Route.....	D-37
D.4-9	North Seal Beach Wellfields Alternative Hazardous Waste Sites .....	D-39
D.5-1	Impact Significance of Alternatives.....	D-43
D.5-2	Comparison of Alternatives .....	D-44
F-1	Cumulative Projects List .....	F-4
K-1	Mitigation Monitoring Program .....	K-18

# BOLSA CHICA WATER LINE AND WASTEWATER PROJECT PRELIMINARY DRAFT ENVIRONMENTAL IMPACT REPORT

---

## TABLE OF CONTENTS

		<u>PAGE</u>
<b>LIST OF FIGURES</b>		
ES-1	Proposed Water Transmission Line Route .....	ES-2
B-1	Regional Location .....	B-3
B-2	Proposed Water Transmission Line Route .....	B-4
B-3	Gate Valve Detail .....	B-7
B-4	Steel Casing Beneath Railroad Crossing .....	B-8
B-5	Water Line Route Segments .....	B-12
B-6	Proposed Onsite Water Storage and Distribution Facilities .....	B-17
B-7	Onsite Underground Reservoir Site Plan .....	B-19
B-8	Proposed Wastewater Collection Facilities .....	B-22
B-9	Sewage Lift Station Site Plan .....	B-23
B-10	Construction Segment Map .....	B-25
B-11	Pipeline Construction Diagram (Typical) .....	B-29
B-12	Typical Pipeline Trenching/Bedding Diagram .....	B-31
B-13	Conventional Boring Operation .....	B-34
C.1-1	South Coast Air Basin .....	C.1-2
C.1-2	Wind Rose for Newport Beach .....	C.1-3
C.2-1	Typical Range Of Common Sounds .....	C.2-2
C.2-2	Examples of Outdoor Day-Night Average Sound Levels .....	C.2-3
C.2-3	Monitoring and Sensitive Receptor Locations Along the Proposed and Alternative Alignments .....	C.2-5
C.3-1	Roadway System Travel Lanes and Intersection Controls .....	C.3-3
C.3-2	1999 Daily Traffic Volumes .....	C.3-4
C.3-3	Existing Transit Routes .....	C.3-8
C.4-1	Hazardous Waste Sites with Potential to Impact the Proposed Project .....	C.4-5
C.5-1	Known Active and Potentially Active Faults .....	C.5-5
C.6-1	City of Huntington Beach Flood Hazard Areas .....	C.6-3
C.6-2	Watershed Boundaries .....	C.6-4
C.6.3	Watersheds and Drainage Channels in Project Area .....	C.6-5
C.6-4	Huntington Watershed - Storm and Dry Weather Monitoring Location Map .....	C.6-10
C.6-5	Water Quality Sampling Site Location Map - Huntington Harbour .....	C.6-11
C.7-1	USGS Quad Maps for Cultural Resources Records Check .....	C.7-6
C.9-1	Aerial Photograph of Project Area .....	C.9-3
D-1	Alternative Pipeline Routes Considered .....	D-5
D-2	Route Alternatives Analyzed in the EIR .....	D-11