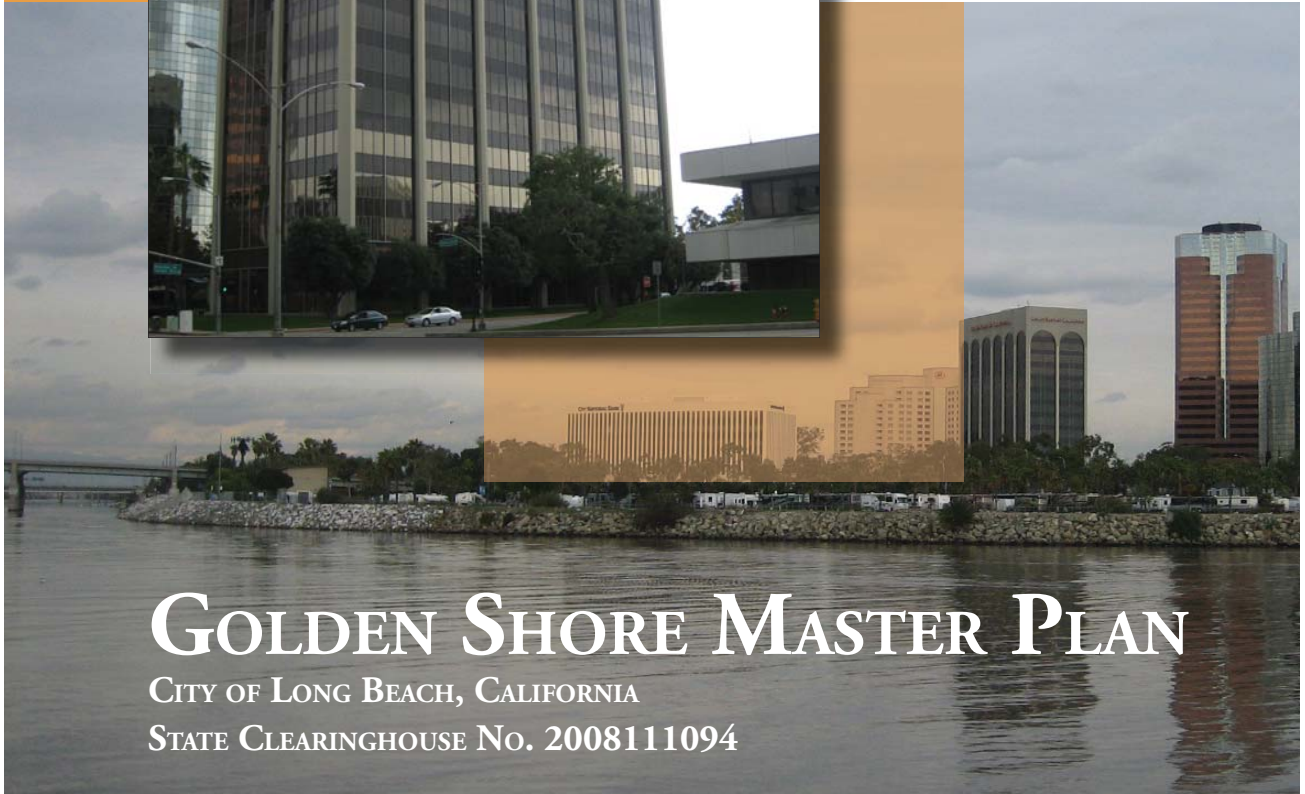


VOLUME I

**DRAFT
ENVIRONMENTAL IMPACT REPORT**



GOLDEN SHORE MASTER PLAN

CITY OF LONG BEACH, CALIFORNIA
STATE CLEARINGHOUSE No. 2008111094

OCTOBER 2009



PCR

VOLUME I

**DRAFT
ENVIRONMENTAL IMPACT REPORT**

GOLDEN SHORE MASTER PLAN

CITY OF LONG BEACH, CALIFORNIA

STATE CLEARINGHOUSE No. 2008111094

Lead Agency:

City of Long Beach
Department of Development Services
333 W. Ocean Boulevard, 5th Floor
Long Beach, California 92802
Contact: Jeff Winklepleck, Senior Planner

Prepared by:

PCR Services Corporation
One Venture, Suite 150
Irvine, California 92618

October 2009

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	ES-1
I. INTRODUCTION.....	I-1
II. PROJECT DESCRIPTION.....	II-1
III. BASIS FOR CUMULATIVE ANALYSIS.....	III-1
IV. ENVIRONMENTAL IMPACT ANALYSIS	IV.A-1
A. Aesthetics and Views.....	IV.A-1
B. Air Quality	IV.B-1
C. Cultural Resources	IV.C-1
D. Geology and Soils.....	IV.D-1
E. Hydrology and Water Quality	IV.E-1
F. Land Use.....	IV.F-1
G. Noise	IV.G-1
H. Population and Housing.....	IV.H-1
I. Public Services	IV.I-1
1. Fire Protection.....	IV.I-1
2. Police Protection	IV.I-16
3. Schools.....	IV.I-29
4. Parks and Recreation.....	IV.I-42
5. Libraries	IV.I-60
J. Traffic and Parking	IV.J-1
K. Utilities and Service Systems	IV.K-1
1. Water Supply	IV.K-1
2. Solid Waste	IV.K-28
V. ALTERNATIVES	V-1
A. Introduction.....	V-1
B. Alternatives Analysis	V-11
1. No Project/No Development Alternative.....	V-11
2. Reduced Intensity Alternative.....	V-22
3. West Site Only Alternative	V-32
C. Environmentally Superior Alternative.....	V-43
VI. OTHER ENVIRONMENTAL CONSIDERATIONS.....	VI-1

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
VII. DOCUMENT PREPARATION AND REFERENCES.....	VII-1

APPENDICES

APPENDIX A – INITIAL STUDY/NOP/NOP COMMENT LETTERS

APPENDIX B – AIR QUALITY WORKSHEETS

APPENDIX C – CULTURAL RESOURCES RECORDS/TECHNICAL DATA

APPENDIX D – NOISE WORKSHEETS

APPENDIX E – PUBLIC SERVICE CORRESPONDENCE LETTERS

APPENDIX F – TRAFFIC IMPACT STUDY

APPENDIX G – WATER SUPPLY ASSESSMENT

APPENDIX H – PEDESTRIAN-LEVEL WIND STUDY

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
II-1	Regional Location Map.....II-2
II-2	Aerial View of the Project Area.....II-5
II-3	Residential Option Site PlanII-9
II-4	Residential Option East-West Cross-Section from NorthII-13
II-5	Residential Option North-South Cross-Section to West from Golden Shore.....II-14
II-6	Residential Option North-South Cross-Section from East of the Project Site.....II-15
II-7	Hotel Option A Site PlanII-16
II-8	Hotel Option A East-West Cross-Section from North.....II-19
II-9	Hotel Option A North-South Cross-Section to West from Golden ShoreII-20
II-10	Hotel Option A North-South Cross-Section from East of the Project Site.....II-21
II-11	Hotel Option B Site Plan.....II-23
II-12	Hotel Option B East-West Cross-Section from North.....II-26
II-13	Hotel Option B North-South Cross-Section to West from Golden ShoreII-27
II-14	Hotel Option B North-South Cross-Section from East of the Project SiteII-28
III-1	Related Projects Map III-3
IV.A-1	Map of Vantage Points..... IV.A-7
IV.A-2	Viewsheds of and from the Project Site..... IV.A-8
IV.A-3	Viewsheds of and from the Project Site..... IV.A-9
IV.A-4	Viewsheds of and from the Project Site..... IV.A-10
IV.A-5	Viewsheds of and from the Project Site..... IV.A-11
IV.A-6	Viewsheds of and from the Project Site..... IV.A-12
IV.A-7	Townhomes Design IV.A-22
IV.A-8	Commercial Design IV.A-23
IV.A-9	High-Rise Design..... IV.A-24
IV.A-10	Winter Solstice Shade Patterns IV.A-38
IV.A-11	Summer Solstice Shade Patterns..... IV.A-39
IV.B-1	Estimated Inhalation Cancer Risk for South Coastal Los Angeles County IV.B-5
IV.B-2	Closest Sensitive Receptor Locations..... IV.B-12
IV.C-1	Gabrielino Villages McCawley Map IV.C-12
IV.C-2	1914 Sanborn Map..... IV.C-21
IV.C-3	1949 Sanborn Map..... IV.C-23
IV.D-1	Regional Fault Map..... IV.D-5
IV.E-1	Regional Hydrologic Map.....IV.E-3
IV.E-2	Existing Storm Drain System.....IV.E-5
IV.E-3	Flood Insurance Rate Map.....IV.E-6
IV.G-1	Noise Monitoring Locations and Existing Noise Sensitive Uses IV.G-10
IV.I-1	Long Beach Fire Station Serving the Project SiteIV.I-5
IV.I-2	Location of the South Division Police Station.....IV.I-20

LIST OF FIGURES (CONTINUED)

<u>Figure</u>	<u>Page</u>
IV.I-3	LBUSD Schools Serving the Project Site.....IV.I-32
IV.I-4	Parks and Recreational Facilities Located within the Project Vicinity.....IV.I-50
IV.I-5	Proposed Parks and Recreational Facilities in the Project Vicinity.....IV.I-53
IV.I-6	Location of the Main Library Serving the Project Site.....IV.I-62
IV.J-1	Study Area Intersections and Intersection Controls..... IV.J-5

LIST OF TABLES

<u>Table</u>	<u>Page</u>
ES-1	Summary of Residential Option ES-5
ES-2	Summary of Hotel Option A..... ES-7
ES-3	Summary of Hotel Option B..... ES-10
ES- 4	Summary of Project Impacts and Mitigation Measures..... ES-17
II-1	Summary of Residential Option II-12
II-2	Summary of Hotel Option A..... II-18
II-3	Summary of Hotel Option B..... II-25
III-1	Related Projects List III-2
IV.A-1	Related Projects Within One-Half Mile of the Project Site..... IV.A-43
IV.B-1	Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Stations IV.B-6
IV.B-2	Ambient Air Quality Standards IV.B-14
IV.B-3	South Coast Air Basin Attainment Status..... IV.B-17
IV.B-4	Residential Option – Unmitigated Project Construction Emissions (lbs/day)... IV.B-46
IV.B-5	Construction Greenhouse Gas Emissions IV.B-49
IV.B-6	Residential Option Regional Operational Emissions..... IV.B-50
IV.B-7	Hotel Option (worst-case) Local Area Carbon Monoxide Dispersion Analysis IV.B-51
IV.B-8	Operational Greenhouse Gas Emissions (2020) IV.B-56
IV.B-9	Option Project’s Consistency with Recommendations Presented in the CAT Report..... IV.B-67
IV.D-1	Characteristics and Estimated Maximum Earthquakes for Faults Considered for the City of Long Beach..... IV.D-4
IV.E-1	Common Sources of Pollutants in Urban Runoff IV.E-8
IV.F-1	Comparison of the Project with Applicable Policies of the General Plan Land Use Element..... IV.F-24
IV.F-2	Comparison of the Project with the Applicable General Development and Use Standards of the Downtown Shoreline Planned Development..... IV.F-25
IV.F-3	Comparison of the Project with the Applicable Goals of the Long Beach Strategic Plan 2010 IV.F-31
IV.F-4	Comparison of the Project with the Applicable Goals and Policies of SCAG’s Regional Transportation Plan and Compass Growth Vision Report IV.F-35
IV.G-1	Exterior Noise Limit IV.G-5
IV.G-2	Interior Noise Limit IV.G-6
IV.G-3	Air-conditioning Equipment Noise Limits IV.G-7
IV.G-4	Land Use Compatibility for Community Noise Sources IV.G-9
IV.G-5	Summary of Ambient Noise Measurements IV.G-13
IV.G-6	Traffic Noise Model Calibration Results..... IV.G-15
IV.G-7	Vehicle Mix for Traffic Noise Model..... IV.G-15

LIST OF TABLES (CONTINUED)

<u>Table</u>	<u>Page</u>
IV.G-8	Predicted Existing Vehicular Traffic Noise Levels IV.G-16
IV.G-9	Construction Equipment Noise Levels IV.G-24
IV.G-10	Summary of Worst-Case Noise Impacts Assuming Overlap of Phases 1, 2, 3 IV.G-25
IV.G-11	Typical Vibration Velocities for Potential Project Construction Equipment IV.G-26
IV.G-12	Off-Site Traffic Noise Analysis IV.G-33
IV.H-1	Total 2009 Population, Housing, and Employment..... IV.H-7
IV.H-2	Population, Housing, and Employment Projections IV.H-8
IV.H-3	Job/Housing Ratio Projections..... IV.H-8
IV.H-4	Proposed Project Development..... IV.H-13
IV.H-5	Proposed Project Population, Housing, and Employment Impacts Between the Years of 2009 and 2030 IV.H-14
IV.H-6	Cumulative Water Demand..... IV.H-19
IV.H-7	Cumulative Project Population, Housing, and Employment Impacts Between the Years of 2009 and 2030 IV.H-20
IV.I-1	Fire Stations Located in the Vicinity of the Project SiteIV.I-6
IV.I-2	Related Projects Within Fire Station No. 1 Service Area.....IV.I-14
IV.I-3	Population, Officer, Crime, and Response Time Comparison for 2008IV.I-21
IV.I-4	Related Projects Within the South Division’s Service Area.....IV.I-27
IV.I-5	Current Capacity and Enrollment of LBUSD Schools Serving the Project AreaIV.I-33
IV.I-6	LBUSD Student Generation Rates.....IV.I-35
IV.I-7	Estimated Number of Project-Generated Students under the Residential Option, Hotel Option A, and Hotel Option BIV.I-36
IV.I-8	LBUSD Projected Capacity and Enrollment for the 2017-2018 School Year.....IV.I-38
IV.I-9	Related Projects Within the LBUSD IV.I-39
IV.I-10	2017-2018 LBUSD Enrollment and Capacity with Residential Option and Hotel Options and Related Project Students.....IV.I-40
IV.I-11	Parks and Recreational Facilities Within the Vicinity of the Project SiteIV.I-49
IV.I-12	Cumulative Projects Impacting the City’s Parks and Recreational Facilities.....IV.I-58
IV.I-13	Neighborhood Libraries Serving the Project SiteIV.I-65
IV.J-1	Existing Peak Hour Levels of Service IV.J-7
IV.J-2	Location and Description of Related Projects IV.J-8
IV.J-3	Related Projects Traffic Generation Forecast IV.J-9
IV.J-4	Level of Service Criteria for Signalized Intersections IV.J-19
IV.J-5	City of Long Beach Clearance Intervals IV.J-20
IV.J-6	Level of Service Criteria for Unsignalized Intersections..... IV.J-20
IV.J-7	Related Projects Traffic Generation Forecast IV.J-23
IV.J-8	Project Traffic Generation Equations and Rates..... IV.J-25
IV.J-9	Project Traffic Generation Forecast..... IV.J-26
IV.J-10	Year 2020 Peak Hour Intersection Capacity Analysis..... IV.J-28

LIST OF TABLES (CONTINUED)

<u>Table</u>	<u>Page</u>
IV.J-11	Year 2020 Cumulative Plus Project Driveway Peak Hour Levels of Service Summary IV.J-35
IV.J-12	City Code Parking Requirements..... IV.J-39
IV.J-13	Year 2020 Project Fair Share Contribution IV.J-43
IV.K-1	Current and Planned Water Supplies (AFY) IV.K-14
IV.K-2	Amount of Groundwater Pumped (AFY) IV.K-16
IV.K-3	Water Demand Forecast Through 2030 (In AFY)..... IV.K-18
IV.K-4	Projected Water Supply and Demand for Normal Year, Single Dry-Year, and Multiple Dry-Year (AFY)..... IV.K-19
IV.K-5	Existing Estimated Water Use IV.K-20
IV.K-6	Residential Option Estimated Water Use IV.K-21
IV.K-7	Hotel Options Estimated Water Use..... IV.K-22
IV.K-8	Cumulative Water Demand..... IV.K-26
IV.K-9	Disposal Facilities Utilized by the City of Long Beach in 2008 IV.K-35
IV.K-10	Estimated C&D Waste Generation for the Residential Option IV.K-38
IV.K-11	Estimated C&D Waste Generation for the Hotel Options IV.K-39
IV.K-12	Existing and Proposed Solid Waste Generation for the Residential Option..... IV.K-40
IV.K-13	Existing and Proposed Solid Waste Generation for the Hotel Options IV.K-41
IV.K-14	Cumulative Solid Waste Generation..... IV.K-43
V-1	Comparison of Impacts of the Alternatives With Impacts of the Proposed Golden Shore Master Plan Project..... V-6