DRAFT

Coastal Permit No. 166, Conditional Use Permit Nos. 215 & 216,
Tentative Parcel Map No. 26073 and Grading Permit Nos. 2229 & 2230

Environmental Impact Report for the Long Point Resort Project

Prepared for:

City of Rancho Palos Verdes

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PRELIMINARY DRAFT

PROGRAM ENVIRONMENTAL IMPACT REPORT

for the

LONG POINT RESORT PROJECT

(General Plan Amendment No. 28, Coastal Permit No. 166,
Conditional Use Permit Nos. 215 & 216,
Tentative Parcel Map No. 26073, Grading Permit Nos. 2229 & 2230

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GLOSSARY OF TERMS

AASHTO	American Association of State Highway and Transportation Officials
AB	California State Assembly Bill
ADT	Average Daily Traffic
af	Artificial Fill
AQMP	Air Quality Management Plan
BARCT	Best Available Retrofit Control Technology
BMPs	Best Management Practices
BOD	Biochemical Oxygen Demand
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standard
CARB	California Air Resource Board
CCAA	California Clean Air Act
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
CMP	Corrugated Metal Pipe
CO	Carbon Monoxide
COD	Chemical Oxygen Demand
CP	Coastal Permit
CPH	Capital Pacific Holdings
CR	Commercial Recreational District
CSDLA	County Sanitation Districts of Los Angeles
CSP	Coastal Specific Plan
CUP	Conditional Use Permit
CWSC	California Water Service Company
DO	Dissolved Oxygen
DPW	Los Angeles County Department of Public Works
DWP	Department of Public Works
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FIRMs	Flood Insurance Rate Maps
FTEE	Full-time Equivalent Employees
H	Hydrogen Ion
I	Institutional District
ICU	Intersection Capacity Utilization
IPM	Integrated Pest Management
ITE	Institute of Transportation Engineers

GLOSSARY OF TERMS
(continued)

JWPCP	Joint Water Pollution Control Plant
LACMTA	Los Angeles County Metropolitan Transportation Authority
LACSD	Los Angeles County Sheriff's Department
LOS	Level of Service
LPHCP	Long Point Habitat and Conservation Program
M	Magnitude
MGD	Million Gallons Per Day
MLLW	Mean Lower Low Water
MSC	Mean Sea Level
MTA	Los Angeles County Metropolitan Transportation Authority
MWD	Metropolitan Water District
N	Nitrogen
N/N	Nitrate-Nitrogen
NAAQS	National Ambient Air Quality Standards
NCCP	National Communities Conservation Program
NFIP	National Flood Insurance Program
NO_2	Nitrogen Dioxide
NOC	Notice of Completion
NOP	Notice of Preparation
O_3	Ozone
OH	Open Space - Hazard District
OR	Open Space Recreational District
OTGC	Ocean Trails Golf Course
P	Phosphorus
Pb	Lead
PM_{10}	Fine Particulate Matter
POU	Program of Utilization
PVIC	Point Vicente Interpretive Center
PVLD	Palos Verdes Library District
PVPUSD	Palos Verdes Peninsula Unified School District
Qb	Beach Deposits
QSW	Soil - Slope Wash Mixtures
Qta	Talus
Qtm	Marine Terrace Deposits
RACT	Reasonably Available Control Technology
RCP	Reinforced Concrete Pipes
RCPG	Regional Comprehensive Plan and Guide

GLOSSARY OF TERMS
(continued)

RHA	Resort Hotel Area
RM	Resource Management
SANDAG	San Diego Association of Governments
SCA	Society for California Archaeology's
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCG	Southern California Gas Company
SO_2	Sulfur Dioxide
SO_x	Sulfur Oxides
SRA	Source Receptor Area
SRRE	Source Reduction and Recycling Element
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
TACs	Toxic Air Contaminants
Tb	Basalt
TDS	Total Dissolved Solid
TIA	Transportation Impact Analysis
TKN	Total Kjeldahl Nitrogen
Tma	Altamira Shale
TOC	Total Organic Carbon
U.S.	United States
UCF	University of California at Fullerton
UCLA	University of California at Los Angeles
UPVA	Upper Point Vicente Area
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	Volatile Organic Compounds
VZ	Verizon Communications
YLPA	York Long Point Associates

1.0 INTRODUCTION AND PURPOSE

1.1 ENVIRONMENTAL PROCEDURES

The City of Rancho Palos Verdes is the lead agency under the California Environmental Quality Act (CEQA), and is responsible for preparing the Environmental Impact Report (EIR) for the Long Point Resort project (State Clearinghouse No. 2000071076). This EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), California CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), and the rules, regulations, and procedures for implementation of CEQA, as adopted by the City of Rancho Palos Verdes. The principal CEQA Guidelines sections governing content of this document are Sections 15120 through 15132 (Content of an EIR).

This EIR has been prepared to evaluate site specific and cumulative environmental impacts associated with the development of the Long Point Resort Project (Project). The Project is a destination hotel and resort with a 9-hole public use golf course and practice facility, and almost 40 acres of conserved and enhanced open space habitat located on approximately 168 acres in the City of Rancho Palos Verdes (City). The City is the Lead Agency for preparation and certification of this EIR.

1.2 PURPOSE AND SCOPE OF THE EIR

This EIR has been prepared as both a Project-level EIR (CEQA Guidelines Section 15161) and a Program EIR (CEQA Guidelines Section 15168) to reflect the various discretionary approvals that have been requested by the Project Applicant.

As outlined in the CEQA Guidelines, the Project EIR “should focus primarily on the changes in the environment that would result from the development project” and “shall examine all phases of the project including planning, construction, and operation.” The EIR addresses the “planning, construction, and operation” to the level of detail possible based on information provided by the Project Applicant, Destination Development Corporation, in its applications for Conditional Use Permits and a Coastal Development Permit.

In accordance with Section 15121 of CEQA, a primary purpose of this EIR is to provide decision makers and the public with specific information regarding the environmental effects associated with development of a site, identify ways to minimize the significant effects and describe reasonable alternatives to the project. Mitigation measures are provided which may be adopted as Conditions of Approval in order to reduce the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the proposed project.

The City of Rancho Palos Verdes, which has the principal responsibility of processing and approving the project, and other public agencies (i.e., responsible and trustee agencies, refer to Section 1.3 of this EIR) that may use this EIR in the decision making or permit process will consider the information in this EIR along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with Section 15093(b) of the State CEQA Guidelines, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per Section 15093 of the State CEQA Guidelines, a "statement of overriding considerations."

This document analyzes the environmental effects of the Project to the degree of specificity appropriate to the current proposed actions, as required by Section 15146 of the State CEQA Guidelines. This analysis considers the series of actions associated with the General Plan amendments, and zone changes, to determine the short-term and long-term effects associated with the Project. This EIR discusses both the direct and indirect impacts of this project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects. CEQA requires the preparation of an objective, full disclosure document to inform agency decision makers and the general public of the direct and indirect environmental effects of the proposed action; provide mitigation measures to reduce or eliminate significant adverse effects; and identify and evaluate reasonable alternatives to the proposed project.

The Project would be developed on two distinct physical areas of the City: a 103.5-acre property on the ocean-side of Palos Verdes Drive (the Resort Hotel Area) and a 64.9-acre area on the north side of Palos Verdes Drive South referred to as the Upper Point Vicente Area (UPVA).

This EIR considers the following proposed actions for the Project:

- A General Plan Amendment for UPVA to change the land use designation from Recreational Passive to Recreational Active;
- Applications for Coastal Permit No. 166 and Conditional Use Permit No. 215 to construct and operate the Resort Hotel and other facilities and buildings within the Resort Hotel Area;
- Application for Conditional Use Permit No. 216 to construct the golf course and establish the habitat areas on UPVA;
- Tentative Parcel Map No. 26073 for the Resort Hotel Area; and

- Grading Permit Nos. 2229 and 2230 for the master grading of roads and pads, infrastructure, and the construction of resort and golf course buildings on the Resort Hotel Area and UPVA, respectively.

Other actions for which this EIR may be used include the approval of implementing agreements, potentially including a Development Agreement and/or Concession Agreement between the City and Project Applicant, that are anticipated to be required in conjunction with project implementation, if and when the project is approved. Therefore, preparing this EIR as a Program EIR also allows the City of Rancho Palos Verdes to consider "broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts" (CEQA Guidelines Section 15168 (b)(4). This EIR may also be used by a number of other agencies for their approvals (refer to Section 1.3).

When construction-level permits for those structures and facilities not covered under this application are submitted, they will need to be examined in light of this EIR to determine whether any new impacts would occur and whether this EIR adequately addresses the project details proposed at that time. Because of the current level of design, some additional studies may be needed at future stages of the project to refine the mitigation measures. For purposes of addressing all possible impacts from implementing the project, this EIR has established standards and criteria to be met by future design of the project. Where mitigation in this EIR specifies that further studies will be required, the focus of this subsequent mitigation will be to ensure that project impacts are within the criteria of applicable City or other responsible agency codes and ordinances.

1.3 RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to Sections 15381 and 15386 of the State CEQA Guidelines, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

> "*Responsible Agency"* means a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project." (*Section 15381)*
>
> "*Trustee Agency* means a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for

the people of the State of California. Trustee Agencies include...." *(Section 15386, part)*

Responsible and Trustee Agencies and other entities may use the Program EIR in their decision-making process or for informational purposes include, but may not be limited to, the following:

- California Air Resources Board
- California Coastal Commission
- California Department of Fish and Game
- California Department of Transportation
- California Regional Water Quality Control Board
- City of Rancho Palos Verdes
- County of Los Angeles Public Works
- County of Los Angeles - Public Works Environmental Management
- County Sanitation of Los Angeles County
- Los Angeles County Fire Department
- Los Angeles County Health Department
- Los Angeles County Sheriff Department
- Metropolitan Transit Authority
- Palos Verdes Peninsula Library
- Palos Verdes Peninsula Unified School District
- South Coast Air Quality Management Agency
- Southern California Association of Governments
- State Water Resources Control Board
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Department of the Interior/National Park Service
- U.S. Fish and Wildlife Service

1.4 COMPLIANCE WITH CEQA

This EIR is subject to a 60-day review period by responsible and trustee agencies and interested parties.[1] Section 15087 of the CEQA Guidelines lists optional procedures for noticing including publication in a newspaper, posting on-site or mailing to owners of a property or properties contiguous to the site. In accordance with the provision of Sections 15085(a) and 15087(a)(1) of the State CEQA Guidelines, as amended, the City of Rancho Palos Verdes, serving as the Lead Agency, will: 1) publish a notice of availability of a Draft EIR in the Palos Verdes Peninsula News, a newspaper of general circulation; and 2) will prepare and transmit a Notice of Completion (NOC) to the State Clearinghouse. (Proof of publication is available at the offices of the Lead Agency.) A copy of the NOC is provided at the front of this document.

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing to the individual identified on the document's NOC prior to the end of the 60-day public review period. During the public review period, the City of Rancho Palos Verdes will hold a regularly-scheduled public hearing regarding the Draft EIR. The public will be afforded the opportunity to orally comment on the Draft EIR at the public hearing. Such comments shall be recorded and shall have the same standing and response requirements as written comments provided during the public review period. Upon the close of the public review period, the Lead Agency will then proceed to evaluate and prepare responses to all relevant oral and written comments received from both citizens and public agencies and other commenting parties during the public review period.

The Final EIR will consist of the Draft EIR, and revisions to the Draft EIR and responses to comments addressing concerns raised by responsible agencies or reviewing parties. After the Final EIR is completed and at least 10 days prior to its certification, a copy of the Responses to Comments will be transmitted to agencies or other party providing written or oral comments on the Draft EIR.

1.5 EIR SCOPING PROCESS

In compliance with the State CEQA Guidelines, the City of Rancho Palos Verdes has taken steps to maximize opportunities for interested individuals, parties and agencies to participate in the environmental process. During the preparation of the Draft EIR, an effort was made to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments and inform

[1] It should be noted that the 60-day review period is in excess of the 45-day CEQA required review period (Section 15105 of CEQA states: "The public review period for a draft EIR should not be less than 30 days nor longer than 60 days except in unusual circumstances. When a draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless a shorter period, not less than 30 days, is approved by the State Clearinghouse."

the public of the proposed project. This included the distribution of an Initial Study and Notice of Preparation (NOP) on July 18, 2000, and a public scoping meeting on the EIR on August 22, 2000 before the City's Planning Commission and Traffic Committee.

Initial Study

In accordance with Section 15063(a) of the State CEQA Guidelines, as amended, the City undertook the preparation of an Initial Study. The Initial Study determined that a number of environmental issue areas may be impacted by the construction and build-out of the Long Point Resort project. As a result, the Initial Study determined that this Draft EIR should address the project's significant impacts on a variety of environmental issue areas.

Notice of Preparation

Pursuant to the provision of Section 15082 of the State CEQA Guidelines, as amended, the City of Rancho Palos Verdes circulated an NOP to public agencies, special districts, and members of the public requesting such notice for a 45-day period commencing July 20, 2000 and ending September 4, 2000. The purpose of the NOP was to formally convey that the City is preparing a Draft EIR for the Long Point Resort project, and that as Lead Agency, was soliciting input regarding the scope and content of the environmental information to be included in the EIR. The Initial Study was circulated with the NOP. The NOP, Initial Study, and responses to the NOP are provided in Appendix 15.1, *Initial Study/Notice of Preparation/ Correspondence*, of this EIR.

Early Consultation (Scoping)

During the NOP circulation period, the City of Rancho Palos Verdes advertised and held a public scoping meeting. The meeting was held on August 22, 2000 and was intended to facilitate public input. The meeting was held with the specific intent of affording interested individuals/groups and public agencies a forum in which to orally present input directly to the Lead Agency in an effort to assist in further refining the intended scope and focus of the EIR as described in the NOP and Initial Study. The meeting was held before the City's Planning Commission and Traffic Committee.

NOP and Scoping Results

The following specific environmental concerns were raised in responses to the NOP and in comments expressed during the scoping meeting held for the project (the numerical reference in parenthesis is the EIR Section in which the analysis is provided):

- Adequacy of parking (5.12);
- Air quality (construction and operational) (5.2);
- Alternatives Analysis (7.0);
- Availability of wastewater treatment facilities (5.11);
- Consider Monaghan Alternative as viable (7.0);
- Consistency with General Plan (5.7);
- Consistency with NCCP (3.0, 5.3);
- Consistency with SCAG Policies (5.7);
- Conversion of public lands to a golf course (5.7, 5.13);
- Deed restrictions and stipulations (5.7, 5.13);
- Detailed project information (hours of operation, casita size, etc.,)(3.0);
- Effects of construction (i.e., haul routes, wide/heavy loads and additional traffic) (5.7);
- Fire hazards associated with vegetation (5.3, 5.10, 5.11);
- Golf course netting and safety (5.10);
- Increases in daily traffic volumes (5.12);
- Impacts of golf course on habitats (5.3);
- Impacts of project on biological resources ("take-10A" permit, corridors, edge effect, etc.,) (5.3);
- Noise created by the project (helipad, golf course, RHA) (5.9);
- Obstruction of views (5.1);
- Outdoor lighting (5.1);
- Preserve Upper Point Vicente Park (5.7, 5.13);
- Public access and recreation (5.7, 5.13);
- Soil stability, geological impact (5.5);
- Solid waste disposal capacity/recycling (5.11);
- Stormwater runoff quality, quantity and impacts (5.6);
- Traffic improvements (5.12);
- Vehicular noise, air quality/odors (5.2, 5.9); and
- Water usage (5.6, 5.11).

This EIR focuses primarily on changes in the environment that would result from the proposed project. The EIR identifies potential impacts resulting from the construction and operation of the proposed project and provides measures to mitigate potential significant impacts. Those impacts which cannot be mitigated to less than significant levels are also identified. This EIR addresses impacts in the following areas:

- Aesthetics/Light and Glare;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Land Use and Relevant Planning;

- Marine Resources;
- Noise;
- Public Health and Safety;
- Public Services and Utilities;
- Traffic and Circulation; and
- Parks and Recreation.

Based on the Initial Study, project implementation is anticipated to result in no impact or a less than significant impact upon certain issue areas. As a result, the following issue areas are not addressed in this Draft EIR:

- Conversion of farmland;
- Conflict with existing agricultural zoning;
- Disturbance of any human remains;
- Soils incapable of supporting septic tanks;
- Release of hazardous materials;
- Emit or handle hazardous materials;
- Safety hazard due to an airport;
- Safety hazard due to a private airstrip;
- Groundwater depletion/interference with recharge;
- Flood hazard area;
- Risk of flooding;
- Alter direction/rate of flow of groundwater;
- Loss of availability of a mineral resource;
- Excessive noise from airport;
- Excessive noise from private airstrip;
- Induce substantial population growth;
- Displace substantial numbers of existing housing;
- Displace substantial numbers of existing people; and
- Change air traffic patterns.

1.6 FORMAT OF THE EIR

This EIR is organized into 15 sections:

Section 1.0, INTRODUCTION AND PURPOSE, provides CEQA compliance information.

Section 2.0, EXECUTIVE SUMMARY, provides a brief project description and summary of the environmental impacts and mitigation measures.

Section 3.0, PROJECT DESCRIPTION, provides a detailed project description indicating project location, project characteristics, phasing, and objectives, as well as associated discretionary actions required.

Section 4.0, BASIS FOR THE CUMULATIVE ANALYSIS, describes the approach and methodology for the cumulative analysis.

Section 5.0, DESCRIPTION OF ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES, contains a detailed environmental analysis of the existing conditions, project impacts, mitigation measures and unavoidable adverse impacts. The analysis of each environmental category in this Section is organized as follows:

- "Existing Conditions" describes the physical conditions which exist at this time and which may influence or affect the issue under investigation;

- "Project Impacts" describes potential environmental changes to the existing physical conditions which may occur if the proposed project is implemented;

- "Cumulative Impacts" describes potential environmental changes to the existing physical conditions which may occur if the proposed project is implemented together with other reasonably foreseeable, planned, and approved future projects;

- "Mitigation Measures" are those specific measures which may be required of the project in order to avoid an adverse impact; minimize a significant adverse impact; rectify a significant adverse impact by restoration; reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or compensate for the impact by replacing or providing substitute resources or environment.

  The discussion of mitigation measures shall also identify where compliance with all current State and City codes and regulations will avoid a potentially significant impact from occurring. This is particularly relevant in those areas concerning building and safety requirements, such as the provisions of the Uniform Building Code, which avoids building and safety impacts; and

- "Level of Significance After Mitigation" discusses whether the project and the project's contribution to cumulative impacts can be reduced to levels that are considered less than significant.

Section 6.0, LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT, discusses significant environmental changes that would be involved in the proposed action, should it be implemented and discusses growth inducing impacts.

Section 7.0, ALTERNATIVES TO THE PROPOSED PROJECT, describes a reasonable range of alternatives to the project or to the location of the project which could feasiblely attain the basic project objectives.

Section 8.0, INVENTORY OF MITIGATION MEASURES, lists mitigation measures proposed to minimize the significant impacts.

Section 9.0, INVENTORY OF SIGNIFICANCE AFTER MITIGATION, describes any impacts which would remain significant following mitigation.

Section 10.0, EFFECTS FOUND NOT TO BE SIGNIFICANT, provides an explanation of potential impacts which have been determined not to be significant.

Section 11.0, ORGANIZATIONS AND PERSONS CONSULTED, identifies all Federal, State or local agencies, other organizations and individuals consulted.

Section 12.0, BIBLIOGRAPHY, identifies reference sources for the EIR.

Section 13.0, MITIGATION MONITORING PROGRAM, identifies responsibilities for monitoring mitigation.

Section 14.0, COMMENTS AND RESPONSES, will be included in the Final EIR and will provide comments and responses pertaining to the Draft EIR.

Section 15.0, APPENDICES, contains technical documentation for the project.

1.7 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with Section 15148 of the CEQA Guidelines encourages "incorporation by reference" as a means of reducing redundancy and length of environmental reports. The following documents, which are available for public review at the City of Rancho Palos Verdes, are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized for each section of this EIR. A brief synopsis of the scope and content of these documents is provided below:

- Draft Environmental Impact Report for the Long Point Master Plan Development, SCH No. 88062211, Myra L. Frank and Associates, June 1989. The EIR examined the potential environmental impacts that could have resulted from the development of the site on Long Point site for a major destination hotel and conference center, an athletic/tennis club facility, a refurbished Galley West restaurant, a new Flower Market/Café, a nine-hole three-par golf course, casita units, and a future hotel. The Long Point site is the former location of Marineland, which closed in 1987. This property is referred to as the

Resort Hotel Area in the current project proposal and is a part of the Long Point Resort project addressed in this EIR. The Monaghan Company (owner) intended to develop the Long Point site as a master-planned property that would include the land uses described above. The project was to be constructed in three phases with completion estimated in 1996. Additionally, the EIR examined the impacts of several alternatives.

~ Draft Environmental Impact Report No. 35 for Vesting Tentative Tract 46628, SCH No. 91031057, Impact Services, Inc., September 6, 1991. This Draft EIR addressed a proposed project involved the approval of Vesting Tentative Tract map 46628, Conditional Use Permit No. 158, Grading Permit No. 1439 and Coastal Permit No. 94 on property located northwest of the Upper Point Vicente Area. The 132-acre project site would be subdivided into 94 lots. Ninety three of these lots would be utilized for development of single-family homes, while Lot 94 would be retained as an "open space" lot, to be dedicated to the City for public use. Dwelling units planned for the site consist of detached single family homes. The average residential lot size would be 25,000 square feet. Lot 94 (the open space lot) would be approximately 64 acres in size and would comprise approximately 48 percent of the total project site. The issues addressed in the Draft EIR included: geology, hydrology, air quality, biological resources, noise, population and housing, traffic, public service and utilities, aesthetics, and cultural resources. [It should be noted that the project ultimately approved was for 79 homes rather than the 94 lots analyzed in the EIR.]

2.0 EXECUTIVE SUMMARY

2.1 PROJECT SUMMARY

The proposed Long Point Resort Project encompasses approximately 168.4 acres in the City of Rancho Palos Verdes, California. The proposed Project generally involves two geographical areas including the 103.5-acre Resort Hotel Area (RHA) and the 64.9-acre Upper Point Vicente Area (UPVA).

The Long Point Resort Project is intended to be a multi-faceted destination Resort. The Resort is planned to provide conserved/enhanced habitat and public open space/recreation facilities, including a public golf practice facility, a 9-hole public-use golf course, 100 general public parking spaces, two shoreline access ramps, seven public parks and overlooks, and 11.1 miles of public walking/hiking trails (linking visitor-serving areas of the Resort with public facilities within the surrounding area). The cornerstone of the Long Point Resort is a full-service hotel.

The Project is divided into three (3) land use districts: the Conservation District; the Recreation District; and the Resort Development District.

- Conservation District. This 34.0-acre District involves two conservation components: the westerly bluffs and shoreline below the Resort Hotel; and the hillside areas proposed to be conserved, enhanced and created as Coastal Sage Scrub habitat on the UPVA;

- Recreation District. The approximately 81.2-acre Recreation District is made up of 10.2 acres of general recreation facilities (general public parks, parking/trails staging areas, and trails/coastal access ways) and an approximately 71.0-acre 9-hole public use golf course and public golf practice facility (includes golf course maintenance facilities, parking, public trails, golf cart staging facilities and clubhouse with limited food service, pro shop, restrooms, and a refreshment area).

- Resort Development District. This approximately 55.6-acre District involves development of a full-service Resort Hotel and related public facilities, and visitor-serving Resort villas as described below:

  - 400 guest rooms (400 keys) in the main building and bungalows;
  - 50 resort casita units (would be multiple-keyed for a total of up to 150 overnight accommodations);
  - 32 resort villas;
  - Resort food and beverage facilities;

- Ë Banquet/meeting rooms and retail facilities (approximately 68,000 square feet);
- Ë Full-service health spa/fitness center (approximately 25,000 square feet);
- Ë A maximum of seven (7) swimming pools, spas and/or jacuzzi;
- Ë A maximum of four (4) tennis courts;
- Ë Parking (surface lots and a multi-level parking structure); and
- Ë A system of public walkways, jogging paths, and bike trails linking public areas and amenities; passive recreation areas (i.e., lawns, scenic overlooks, and seating areas).

Implementation of the proposed Project would require the following discretionary approvals from the City of Rancho Palos Verdes:

- ~ Approval of a General Plan Amendment (GPA No. 28) on the UPVA to change the land use designation from Recreational Passive to Recreational Active;

- ~ Approval of a Conditional Use Permit (CUP No. 216) on the UPVA for construction of the proposed golf course, practice facility and related ancillary uses within the Open Space Recreational District (OR) and Institutional District (I);

- ~ Approval of a Conditional Use Permit (CUP No. 215) on the RHA for construction of the proposed resort/conference hotel and golf course within the Commercial Recreational District (CR), and for CSP requirement that a CUP be obtained for “any future development along the former Marineland site”;

- ~ Approval of a Coastal Development Permit (CDP No. 166) on the RHA for construction of the proposed resort/conference hotel and golf course;

- ~ Approval of a Tentative Parcel Map Application (TPM No. 26073) on the RHA for the redefinition of land parcels that make up this area;

- ~ Approval of a Grading Permit (GRP No. 2229) on the RHA to grade for subdivision, master grading and infrastructure improvements;

- ~ Approval of a Grading Permit (GRP No. 2230) on the UPVA to grade for subdivision, master grading and infrastructure improvements;

Additionally, the proposed project involves improvements to the City-owned property situated off-site, between the UPVA and Hawthorne Boulevard. Proposed improvements include reconfiguration of the Rancho Palos Verdes City Hall parking area and relocation of the City's existing Corporate Yard. The off-site improvements to the City-owned property would be processed through separate permits.

2.2 ENVIRONMENTAL ISSUES/MITIGATION SUMMARY

The following Section provides a summary of the impacts and mitigation measures included in Section 5.0, Description of Environmental Setting, Impacts, and Mitigation Measures, of this EIR. Refer to Section 5.0 for additional information and analysis.

The following is a brief summary of the impacts, mitigation measures, and unavoidable significant impacts identified and analyzed in Section 5.0 of this EIR. Refer to the appropriate EIR Section for additional information.

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
5.1	**AESTHETICS/LIGHT AND GLARE**		
	SHORT-TERM IMPACTS		
	5.1-1 *Grading and construction activities associated with Project implementation may temporarily degrade the existing visual character or quality of the Project sites and their surroundings. Impacts are considered to be short-term; would cease upon completion of construction activities and would be less than significant through compliance with the City's Development Code.*	5.1-1 No mitigation measures are required. Also, refer to mitigation measure 5.1-4.	No significant impacts related to Aesthetics/Light and Glare have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.
	LONG-TERM IMPACTS		
	Visual Character		
	5.1-2 *Project implementation may permanently degrade the existing visual character or quality of the Project sites and their surroundings. This impact would be less than significant through compliance with applicable Development Codes.*	5.1-2 No mitigation measures are required.	
	Rancho Palos Verdes General Plan		
	5.1-3 *Project implementation may have a substantial adverse effect on a scenic vista or resource identified in the General Plan. After compliance with applicable City codes potential impacts would be considered as less than significant.*	5.1-3 No mitigation measures are required.	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
	RANCHO PALOS VERDES COASTAL SPECIFIC PLAN		
	5.1-4 *Project implementation may have a substantial adverse effect on a scenic vista or resource identified in the Coastal Specific Plan. This impact would be considered as less than significant with mitigation.*	5.1-4a The proposed Golf Clubhouse shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitations set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code. 5.1-4b The two easternmost casitas, as well as any and all tennis courts or other structures, shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitation set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code. 5.1-4c The resort Villa buildings shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within the horizontal limits of the Catalina View Corridor from Palos Verdes Drive South	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		conform to the height restrictions set forth in the adopted Coastal Specific Plan - in particular that buildings in Height Zone 1 (closest to Palos Verdes Drive) do no exceed the 16-foot height limitation and those in Height Zone 2 do not exceed the 30-foot height limitations, so that the view of Catalina Island is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.	
	LIGHT AND GLARE		
5.1-5	*Development of the proposed Project may create a new source of light/glare which would adversely affect day or nighttime views in the area. Compliance with applicable City codes would reduce potential impacts to less than significant levels.*	5.1-5 No mitigation measures are required.	
	CUMULATIVE IMPACTS		
5.1-6	*Project development, together with cumulative Projects may result in greater urbanization in the Project area. Compliance with applicable City codes would reduce potential impacts to less than significant levels.*	5.1-6 No mitigation measures are required.	
5.2	**AIR QUALITY**		
	SHORT-TERM AIR QUALITY IMPACTS		
5.2-1	*Significant short-term air quality impacts may occur during site preparation and Project construction. These impacts are considered significant before and after mitigation*	5.2-1 Additional measures beyond adherence to City Development Code and SCAQMD Rules are not required.	The following air quality impacts would remain significant and unavoidable following mitigation:

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
	for NO_X emissions from construction equipment exhaust and significant before and after mitigation for PM_{10} fugitive dust. Impacts would be less than significant for other pollutants. (Mitigation in this instance refers to applicable City Development Code Sections and SCAQMD Rules.)		• NO_X and PM_{10} fugitive dust emissions from construction activities; • ROG, CO, PM_{10}, NO_X emissions from Project operations; • Cumulative development would also result in significant and unavoidable impacts to regional air quality levels of ROG, NO_X, CO and PM_{10}. The increase in the severity of the existing air quality violations would make the proposed development inconsistent with one of the two indicators of consistency. Project implementation would result in a significant unavoidable impact with respect to consistency with the AQMP. If the City of Rancho Palos Verdes approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.
	LONG-TERM OPERATIONAL IMPACTS		
5.2-2	*The Project may result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from electricity and natural gas consumption. This impact is considered significant and unmitigable for ROG, CO, and NO_X emissions and less than significant for emissions of other pollutants.*	5.2-2 No mitigation measures are available.	
	CONSISTENCY WITH AIR QUALITY MANAGEMENT PLAN		

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
	5.2-3 *The Project may be in conflict with the AQMP and RCPG. A significant unavoidable impact is anticipated in this regard.*	5.2-3 No mitigation measures are available.	
	CUMULATIVE IMPACTS		
	5.2-4 *Impacts to regional air quality resulting from development of cumulative Projects may significantly impact existing air quality levels. Impacts would be significant and unavoidable for ROG, CO, NO_X and PM_{10} emissions.*	5.2-4 SCAQMD Standards and City Municipal Code requirements would be implemented on a Project-by-Project basis.	
5.3	**BIOLOGICAL RESOURCES**		
	SPECIAL STATUS BIOLOGICAL RESOURCES		
	5.3-1 *Project implementation may affect species identified as special status. Analysis has concluded that impacts would be mitigated to a less than significant level.*	5.3-1a A pre-construction survey for the island green dudleya shall be conducted during the peak flowering period prior to Grading Permit Issuance (approximately April through June), by the Project biologist. The limits of each impacted dudleya location shall be clearly marked with lath and brightly colored flagging. If any of the dudleya is located in the impact area, the loss of the dudleya shall be mitigated by seed and corm collection, and revegetation into a suitable mitigation site in the undeveloped portion of the Project site or at an off-site location. A qualified biologist shall be selected by the Applicant, subject to the approval of City staff, to prepare and implement the mitigation plan. The detailed mitigation	No unavoidable significant impacts related to biological resources have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		plan shall include the following requirements: • The existing locations of dudleya shall be monitored every two weeks by the Project biologist to determine when the seeds are ready for collection. A qualified seed collector shall collect all of the seeds from the plants to be impacted when the seeds are ripe. • Following the seed collection, the corms shall be dug up, cleaned, and stored by a qualified nursery or institution with appropriate storage facilities. The top 12 inches of topsoil from the dudleya locations shall be scraped, stockpiled, and used at the selected mitigation site. • This mitigation shall be conducted concurrent with the coastal sage scrub and coastal bluff scrub mitigation. The site shall be located in dedicated open space on the Project site or at an offsite mitigation site. The selected site should not attempt to	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		enhance existing populations. • The dudleya mitigation site shall be prepared for seeding as described in a conceptual restoration plan. • The topsoil shall be respread in the selected location as approved by the Project biologist. Approximately 60 percent of the seeds and corms shall be spread/placed in the fall following soil preparation. Forty percent of the seed and corms shall be kept in storage for subsequent seeding, if necessary. • The plan shall include detailed descriptions of maintenance appropriate for the site, monitoring requirements, and annual reports requirements. In addition, the Project biologist shall have the authority to suspend any operation on the Project site which is, in the Project biologist's opinion and confirmed by the City, not	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		consistent with the restoration plan. Any disputes regarding the consistency of an action with the mitigation plan shall be resolved by the Applicant and the Project biologist. • The performance criteria developed in the maintenance and monitoring plan shall include requirements for a minimum of 60 percent germination of the number of plants impacted. The performance criteria should also include percent cover, density, and seed production requirements. This criteria shall be developed by the Project biologist following habitat analysis of an existing high-quality dudleya habitat. This information shall be recorded by a qualified biologist. • If the germination goal of 60 percent is not achieved following the first season, remediation measures shall be implemented prior to seeding with the remaining 40	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		percent of seed. Remedial measures shall include at a minimum: soils testing, control of invasive species, soil amendments, and physical disturbance (to provide scarification of the seed) of the planted areas by raking or similar actions. Additional mitigation measures may be suggested as determined appropriate by the Project biologist. • Potential seed sources from additional donor sites shall also be identified in case it becomes necessary to collect additional seed for use on the site following performance of remedial measures.	
		5.3-1b Pre-construction special status plant surveys shall be conducted to determine the presence or absence of aphanisma, south coast saltscale, Catalina crossosoma, Santa Catalina Island desert-thorn, and Lyon's pentachaeta. The focused surveys for these species shall be conducted during the appropriate blooming period (spring) prior to Demolition Permit Issuance. In the event any of these species are found to be present on the Project site, then mitigation measures shall be developed in consultation with the appropriate resource agencies if the status of the species and the size of the population	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		warrant a finding of significance. Appropriate mitigation may include avoidance of the populations, relocation, or purchase of off-site populations for inclusion to adjacent open space areas.	
		5.3-1c Prior to Demolition Permit/Issuance, a focused survey for the Palos Verdes blue butterfly shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species, or purchasing of off-site habitat for this species.	
		5.3-1d Prior to Demolition Permit/Issuance, the Project Applicant shall comply with the FESA with regards to any impacts to the coastal California gnatcatcher. The LPHCP has been developed to ensure compliance with FESA and to be consistent with the City's NCCP, when adopted. The LPHCP would provide for the creation of 16.80 acres of new coastal sage scrub habitat area (UPVA Conservation Planning Area and Recreation Area). This, combined with the 14.63 acres of existing coastal sage scrub habitat, the 4.44 acres of coastal bluff scrub habitat, and the 3.87 acres of rocky shore/coastal bluff habitat that would be retained, would result in the protection and creation of a total of 39.74 acres of coastal sage scrub, coastal bluff	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		scrub, and rocky shore/coastal bluff habitat. The 16.80 acres of restored and newly created habitat represents a replacement ratio of 3.4 to 1 (3.4 acres restored/created habitat for every 1 acre removed) for the 5.00 acres of coastal sage scrub and coastal bluff scrub impacted by the proposed Project. With the addition of 22.94 acres of preserved coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff to the mitigation program, the compensation ratio is over 7 to 1, far above typical mitigation standards of 2 to 1 and 3 to 1.	
		5.3-1e Thirty days prior to commencement of demolition activities, a qualified biologist shall conduct a survey to determine whether Cooper's hawk, burrowing owl, northern harrier, white-tailed kite, prairie falcon, and peregrine falcon, or other raptor species, are nesting in or adjacent to the impact area. In the event nesting is not occurring, construction work shall proceed. In the event an active nest is present, construction work shall be prohibited within 500 feet of the nest (or as otherwise determined by the Project biologist) until fledglings have left the nest. Results of the surveys shall be provided to USFWS, CDFG, and the City of Rancho Palos Verdes.	
		5.3-1f Prior to Demolition Permit Issuance, a focused survey for the Pacific pocket mouse shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species or purchasing off-site habitat for this species.	
	SENSITIVE NATURAL COMMUNITIES/ HABITATS		
	5.3-2 *The proposed Project may impact portions of the Resort Hotel and Upper Point Vicente Areas which are habitat for referenced sensitive species. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*	5.3-2a The LPHCP shall be implemented prior to the Certificate of Occupancy, to the satisfaction of the City. The Program shall contain habitat restoration and enhancement design details for the Conservation Planning Areas through revegetation with drought-tolerant species, transitional areas of planting between the Conservation Area and Resort Hotel/Recreation Planning Areas, and design for long-term sustainability. In addition, the Project's drainage and surface runoff shall be directed away from the bluff habitat areas in the RHA.	
		5.3-2b The seed mix for the coastal bluff scrub restoration area shall include California box-thorn and woolly sea-blite.	
		5.3-2c Prior to Grading Permit issuance, fencing shall be installed along the edge of all conservation, restoration, and enhancement areas to discourage human encroachment into those areas that would not be encroached upon except as a result of Project implementation.	
		5.3-2d Prior to Grading Permit issuance, signs shall be placed on all fencing installed along the edge of all conservation, restoration, and enhancement areas prohibiting entrance into these areas.	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		5.3-2e Prior to the issuance of Building Permits, areas adjacent to golf course activities shall be protected in compliance with City requirements.	
		5.3-2f Earth-moving equipment shall not maneuver in areas outside the identified limits of grading in order to avoid disturbing open space areas that are proposed to remain undeveloped. Prior to Grading Permit issuance, the natural open space limits shall be marked by the construction supervisor and the Project biologist. These limits shall be identified on the grading plan. The Applicant shall submit a letter to the City of Rancho Palos Verdes prior to Grading Permit issuance verifying that construction limits have been flagged in the field. No earth-moving equipment shall be allowed within the open space areas.	
		5.3-2g The Project development plan shall be modified to avoid any construction/ development impact upon coastal bluff scrub and disturbed coastal bluff scrub areas.	
		5.3-2h The Project development plan shall be modified to avoid any construction/ development impact to any areas subject to jurisdiction of the ACOE and CDFG. If these areas are not avoided, prior to Grading Permit issuance, the Project Applicant shall receive a permit and/or agreement from the ACOE and CDFG for any impacts to areas within their jurisdiction as part of the proposed Project. Prior to the final submittal of an application for an ACOE permit or CDFG agreement, the Project	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		Applicant shall develop a riparian restoration plan for the ACOE, CDFG, and City of Rancho Palos Verdes. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Project. Prior to implementation, a detailed restoration program shall be developed and shall contain the following items: • *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists and maintenance personnel that would supervise and implement the plan shall be specified. • *Site selection*. The site for the mitigation shall be determined in coordination with the Project Applicant, City staff, and resource agencies. The site shall be located in a dedicated open space area and shall be contiguous with other natural open space. • *Site preparation and planting implementation.* Site preparation shall	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION

include: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e. duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or shallow wattles), 7) seed mix application, and 8) container species.

- *Schedule*. A schedule shall be developed which includes planting to occur in late fall and early winter, between October and January 30.

- *Maintenance plan/guidelines.* The maintenance plan shall include: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting.

- *Monitoring Plan.* The monitoring plan shall include: 1) qualitative monitoring (i.e., photographs and general observations),

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which shall be submitted to the resource agencies for five years. The site shall be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the Project Applicant may request from ACOE and CDFG to be released from monitoring requirements. • *Long-Term Preservation.* Long-term preservation of the site shall be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.	

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		• *Performance standards shall be identified and shall apply for the restoration of riparian habitat.* Revegetation shall be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas. Testing shall be conducted by a qualified biologist selected by the Applicant and subject to approval by City staff.	
		5.3-2i A revegetation program shall be implemented in accordance with the landscape palette developed for the LPHCP or as approved by the agencies. The revegetation program shall be submitted to the City of Rancho Palos Verdes for review and approval prior to Grading Permit issuance.	
		5.3-2j Prior to the initiation of grading activities, a 100-foot (or such other distance determined appropriate by a biological monitor) buffer area, shall be established around each gnatcatcher nest, during the	

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		nesting season (February-July) to avoid indirect noise impacts. No heavy equipment operation, or otherwise high noise generating activity, shall occur within the buffer area until nesting activity has ceased. Results of the surveys and nest monitoring will be provided to USFWS, CDFG, and the City of Rancho Palos Verdes. The biological monitor shall be selected by the Applicant and subject to approval by City staff.	
		5.3-2k Prior to the issuance of occupancy permits, a lighting plan shall be submitted to the City of Rancho Palos Verdes for review and approval to demonstrate that lighting from the proposed Project will be directed away from natural open space areas on and adjacent to the Project site, as well as proposed biological resources mitigation sites.	
	WILDLIFE MOVEMENT		
	5.3-3 *Project implementation may interfere with the movement of a native resident or migratory wildlife species. Analysis has concluded that impacts are less than significant.*	5.3-3 No mitigation measures are required.	
	LOCAL POLICIES/ORDINANCES		
	5.3-4 *Analysis has concluded that there are no impacts to any local policies or ordinances protecting biological resources, because there are no approved local policies and/or ordinances within the City of Rancho Palos Verdes regarding the protection of biological resources.*	5.3-4 No mitigation measures are required.	
	CUMULATIVE IMPACTS		

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	5.3-5 *Cumulative development (including the proposed Project) in the Project area may impact the area's biological resources. Analysis has concluded that Project implementation would not result in significant biological impacts with implementation of the specified mitigation and the City's development of the NCCP program.*	5.3-5 No mitigation measures are required.	
5.4	**CULTURAL RESOURCES**		
	ARCHAEOLOGICAL/HISTORICAL RESOURCES		
	5.4-1 *Implementation of the proposed Project may cause a significant impact to archaeological and/or historical resource on-site. Implementation of the specified mitigation measures would reduce impacts to less than significant levels.*	5.4-1a Site CA-LAN-103 (Rock Shelter and Shell Midden). The Project Applicant shall retain a qualified, City approved archaeologist to conduct archaeological testing in order to determine the depth, breadth, and nature of the contents of Site CA-LAN-103, and whether or not it qualifies as a historical resource. Such a testing program would consist of scientific excavation units, artifact analysis, and report preparation for a sample of the site area, so that a conclusion can be reached regarding site integrity and the research potential of its intact deposits. If the testing program determines that Site CA-LAN-103 qualifies as a historical resource as defined in CEQA Guidelines Section 15064.5, three options are available to reduce impacts to a less than significant level: • Capping the site to preserve in situ;	No significant impacts related to Cultural Resources have been identified following implementation of mitigation measures referenced in this Section.

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- Redesign to avoid impacting Site CA-LAN-103; or
- Retain a qualified archaeologist to prepare and implement a data recovery plan prior to issuance of a Grading Permit for the immediate area of CA-LAN-103.

5.4-1b Site 19-180589 (Base End Stations). Since the proposed Project would have no effect on the Base End Stations, the only further requirement regarding this site is to ensure its proper protection during construction activities. No other treatment is recommended for this historical resource.

5.4-1c Site 19-180590 (Battery 240). Due to the proposed Project's potential to cause a change in the significance of this historical resource, one of the following mitigation options shall be implemented prior to Demolition Permit issuance:

- Option 1 (preferred). Project effects to this site shall be avoided by preserving the portion of the site within the Project area and incorporating it into the Project design in such a way as to retain the historic characteristics of this resource.

- Option 2 (if demolition is unavoidable). The

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		historical and physical information about Battery 240 is to be preserved through comprehensive documentation at a level compatible to Level 2 of the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER). Established in 1933 and 1967, respectively, HABS and HAER have been adopted by the National Park Service as the primary methods of preserving important information about architectural, engineering, and industrial sites of historic value, and are often initiated as the means of mitigating adverse effects of federal undertakings on such sites (NPS 1993:1). At Level 2, HABS/HAER requires detailed textual and photographic recordation, sketch maps and drawings of structural features, and historical documentation to record the subject property's history. The results of such documentation are to be made accessible to the public at one or more local repositories, such as the local history collection of the Palos Verdes Library and/or the Palos Verdes Historical Society's museum.	

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		5.4-1d Due to the likelihood of encountering subsurface features or buried artifacts from the WWII era in the vicinity of Battery 240, earth-moving activities near the site shall be monitored by a qualified archaeologist.	
		5.4-1e Site 19-180591 (Nike Air Defense Site La-55-L). One of the following two mitigation options shall be implemented regarding disposition of Site 19-180591 prior to Demolition Permit issuance: • Option 1. Project effects to this site shall be avoided by preserving components of the site and incorporating them into the Project design in such a way as to retain the historic characteristics of this resource. • Option 2 (if demolition is unavoidable). The Project effects to this site shall be mitigated through recordation procedures compatible to Level 2 of HABS/HAER, identical to those recommended for Battery 240.	
		5.4-1f Site 19-180593 (Documented Long Point Defense District). Refer to Mitigation Measures 5.4-1b, 5.4-1c and 5.4-1e. If these recommendations are adopted, the Project's potential effects on the documented historic district would be reduced to a level less than significant.	

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		5.4-1g 6621 Beachview Drive (Ishibashi Farmhouse Complex). Although not eligible for listing in the California Register, this farmhouse complex qualifies as a point of local historical interest. In order to reduce the Project impacts on the complex, the historical and physical data about the buildings, structures, and other related features shall be documented prior to Demolition Permit issuance. Due to the local nature of the complex's significance, HABS-compatible procedures such as those recommended for Battery 240 and Nike Air Defense Site LA-55-L do not appear to be an appropriate approach in this case. Instead, the recommended scope of work consists of a general documentation of the complex's history and current conditions, and limited photographic recordation of its physical characteristics. The results of these procedures should be housed at one or more local repositories to facilitate public access. 5.4-1h Prior to Grading Permit issuance, the Project developer shall provide verification that a qualified archaeologist and/or an archeological monitor have been retained to implement the archeological monitoring program. This verification shall be in the form of a letter from the Project developer to the City of Rancho Palos Verdes.	

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		The qualified archeologist shall attend any preconstruction meetings to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. The qualified archaeologist or archaeological monitor shall be present on-site during construction activity involving work in previously undisturbed soils. The archaeologist's duties shall include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report.	
		5.4-1i In the event that cultural resources are discovered during grading/ construction activities, the archeologist shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The archaeologist shall contact City staff at the time of discovery. The significance of the discovered resources shall be determined by the archeologist, in consultation with City staff. City staff must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program shall be prepared and carried out to mitigate impacts. Any human bones of Native American origin shall be turned over to the appropriate Native American group for reburial.	

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		5.4-1j All cultural remains uncovered during grading/construction activities shall be cleaned, cataloged and permanently curated with an appropriate institution. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the areal. Faunal material shall be identified as to species. Speciality studies shall be completed as appropriate.	
	PALEONTOLOGICAL RESOURCES		
	5.4-2 *Implementation of the proposed Project may impact paleontological resources that may exist on-site but have not been documented. Implementation of recommended mitigation measures would reduce impacts to a less than significant level.*	5.4-2a Prior to Grading Permit issuance, the Project developer shall provide a letter of verification to the City of Rancho Palos Verdes stating that a qualified paleontologist has been retained to implement the monitoring program. The qualified paleontologist shall attend the preconstruction meeting to consult with the excavation contractor. The paleontologist's duties shall include monitoring, salvaging, preparation of collected materials for storage at a scientific institution that houses paleontological collections and preparation of a monitoring results report. These duties are defined as follows:	
		5.4-2b The paleontologist or paleontological monitor shall be on-site to inspect for fossils during all excavation/grading activities. Monitoring shall be done full-time in those formations with a high sensitivity rating, and shall be half-time in those formations with a moderate sensitivity rating. The monitoring time may be increased or decreased at the discretion of the paleontologist in consultation with City staff. Monitoring shall occur only when excavation activities affect the geologic formation.	

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		5.4-2c In the event that fossils are encountered during grading, the paleontologist shall have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. Because of the potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on-site.	
		5.4-2d Fossil remains collected during grading/ construction activities shall be cleaned, sorted, repaired, cataloged, and then (with the permission of the owner of the property where the remains were collected) stored in a local scientific institution that houses paleontological collections. The qualified paleontologist shall be responsible for preparation of fossils to a point of identification, and submittal of a letter of acceptance from a local qualified curation facility. If the fossil collection is not accepted by a local qualified facility for reasons other than inadequate preparation of specimens, the Project paleontologist shall contact City staff to suggest an alternative disposition of the collection.	
	BURIAL SITES		
	5.4-3 *Implementation of the proposed Project may disturb human remains. Implementation of the specified mitigation would reduce impacts to less than significant levels.*	5.4-3 In the event human remains are discovered during grading/ construction activities, work shall cease and an appropriate representative of Native American Indian groups and the County Coroner shall both be informed and consulted, as required by State law.	
	CUMULATIVE IMPACTS		

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	5.4-4 *Cumulative development may adversely affect cultural resources. Resources are evaluated and mitigated on a Project-by-Project basis.*	5.4-4 No mitigation measures are required.	
5.5	**GEOLOGY, SOILS AND SEISMICITY**		
	SEISMICITY		
	Rupture of a Known Earthquake Fault		
	5.5-1 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with rupture of a known earthquake fault. Analysis has concluded, based on the available data, that a less than significant impact would occur in this regard. Project compliance with the City Development Code and the California Building Code would maintain potential impacts at less than significant levels.*	5.5-1 No mitigation measures are required.	No significant impacts related to Geology and Soils have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.
	Strong Seismic Ground Shaking		
	5.5-2 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced ground shaking. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*	5.5-2a Prior to Grading Permit issuance, additional design-level geotechnical studies shall be performed to provide the adequate level of information to properly design and engineer the Project. The Applicant shall submit a Geotechnical Report for review and approval by the City's Geotechnical Consultant addressing the following: • The Report shall primarily involve assessment of potential soil related constraints and hazards such as slope	

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		and sea cliff instability, sea cliff erosion, or related secondary seismic impacts, where determined to be appropriate by the City's Geotechnical Consultant; • The Report shall include an evaluation of potentially expansive soils and recommend construction procedures and/or design criteria to minimize the effect of these soils on the proposed development; and • The Report shall identify appropriate mitigation measures and be completed in the manner specified by the City. 5.5-2b Prior to Grading Permit issuance, the Applicant shall submit a report by an engineering geologist indicating the ground surface acceleration from earth movement for the subject property. All structures within this development shall be constructed in compliance with the g-factors as indicated by the geologist's report. Calculations for footings and structural members to withstand anticipated g-factors shall be submitted for review and approval by the City's Geotechnical Consultant.	

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	Seismically Induced Landslides		
	5.5-3 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced landslides. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*	5.5-3 Refer to Mitigation Measure 5.5-7.	
	Other Seismically Induced Hazards		
	5.5-4 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced liquefaction, ground lurching, lateral spreading, settlement and/or tsunamis. Analysis has concluded, based on the available data, that a less than significant impact would occur in association with these hazards. Project compliance with the City Development Code and the California Building Code would maintain potential impacts at less than significant levels.*	*Liquefaction* 5.5-4a No mitigation measures are required. *Ground Lurching* 5.5-4b No mitigation measures are required. *Lateral Spreading* 5.5-4c No mitigation measures are required. *Settlement* 5.5-4d No mitigation measures are required. *Tsunamis* 5.5-4e No mitigation measures are required.	
	SOILS		
	Erosion		
	5.5-5 *Development of the proposed Project may result in substantial soil erosion.*		

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	Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.	5.5-5 Refer to Mitigation Measure 5.5-2. Also, refers to Section 5.6, *Hydrology and Drainage*.	
	Expansive Soils		
5.5-6	*The proposed Project may be located on expansive soils. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*	5.5-6 Prior to Building Permit issuance, a layer of relatively non-expansive soils shall be placed beneath floor slabs. For building footings, the use of properly reinforced concrete, deep spread-footings, drilled-and-belled caissons, or drilled cast-in-place piles shall be utilized. As part of the geotechnical report for the final design of the Project, specific recommendations shall be provided by the geotechnical consultant. In addition, refer to Mitigation Measure 5.5-2.	
	UNSTABLE GEOLOGIC UNITS		
	Landslides		
5.5-7	*Development of the proposed Project may be increase the number of people/structures exposed to potential significant effects associated with landslides. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*	5.5-7a Prior to Building Permit issuance, permanent structures and structures of all-hours occupancy shall be placed landward of the existing City-approved building setback line on the RHA and the structural (building) setback line established by Neblett & Associates (July, 2000) on the UPVA. 5.5-7b Prior to Grading Permit issuance on the UPVA, a comprehensive subsurface investigation shall be conducted by the Applicant's geotechnical consultant regarding the postulated landslide located in the southeast corner of the UPVA. The investigation shall be conducted at Project design level, pursuant to City	

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		review requirements, and to the satisfaction of the City's Geotechnical Consultant. The study shall also include preparation of appropriate geologic cross sections to be used to perform slope/landslide stability analysis. Based on the results of the analysis, a mitigation concept/plan shall be implemented.	
		5.5-7c Prior to Grading Permit issuance, the Applicant shall submit a grading/drainage plan for review and approval by the Director of Public Works and City's Geotechnical Consultant. Said plan shall incorporate the following design objectives: • All surface and subsurface runoff shall be directed to the nearest acceptable drainage facility via sump pumps if necessary, as determined by the Director of Public Works; • On-site drainage and subdrain systems shall not drain over the bluff top. All roof gutter drains shall be required to connect into a tight line drainage pipe or concrete swales that drain to an acceptable drainage facility, as determined by the Director of Public Works;	

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		• A soils/geotechnical report addressing the extent of uncompacted fill and remedial grading on site shall be prepared. The report, including the recommended bluff protection measures and vibration monitoring system, shall be submitted for review and approval by the Director of Public Works and City's Geotechnical Consultant. Heavy vibrating compaction equipment shall not be allowed near the bluff face. • Incorporate all recommendations of the approved soils/ geotechnical report into the construction design of the Project.	
		5.5-7d Prior to Grading Permit issuance, the location of groundwater monitoring wells with a combination of shallow (30 feet), intermediate (80 feet), and deep (200 feet), shall be identified and installed by the Applicant's Geotechnical Consultant to the satisfaction of the City's Geotechnical Consultant. These wells shall be monitored at a minimum on a monthly basis for the first five years after issuance of the Certificate of Occupancy. A monthly report shall be prepared presenting the groundwater level monitoring data and submitted to the City for review.	

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		In the event the groundwater level monitoring data indicates either a rise of more than ten feet within the regional water table, or the presence of groundwater if no groundwater was documented immediately following installation of the well(s), additional wells shall be installed in order to assess the nature and extent of the changes in the groundwater conditions beneath the area. If this condition were to occur, a well drilling plan shall be submitted to the City for review by the City's Geotechnical/ Hydrogeologic Consultant.	
		5.5-7e A biannual reconnaissance of the UPVA and of the sea cliffs shall be performed for at least five years after issuance of the Certificate of Occupancy, as indicated by the Director of Public Works, to assess the presence of seeps or springs which may develop overtime. The result of the evaluation shall be included in the appropriate monthly groundwater monitoring report with recommendations to mitigate any adverse seepage noted during the reconnaissance.	
	Sea Cliff Retreat		
5.5-8	*The proposed Project may be located on a geologic unit that is unstable or that may become unstable. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*	5.5-8a Refer to Mitigation Measure 5.5-7a.	
		5.5-8b Prior to Demolition Permit, a Construction Monitoring Plan shall be prepared to protect coastal resources within and surrounding proposed development areas during construction phases of the Project. The Plan shall be submitted to the Director of Community Development for	

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		review and approval. The Plan shall also identify measures for the protection of resources and monitoring procedures to determine compliance. Such measures include, but are not limited to, Best Management Practices, erosion control measures and protective fencing.	
	CUMULATIVE IMPACTS		
	5.5-9 *The proposed Project, combined with future development, may result in increased short-term impacts such as erosion and sedimentation, and long-term seismic impacts within the area. Mitigation is incorporated on a Project-by-Project basis to reduce impacts to a less than significant level in areas deemed suitable for development.*	5.5-9 No mitigation measures are required.	
5.6	**HYDROLOGY AND DRAINAGE**		
	DRAINAGE AND RUNOFF		
	5.6-1 *The proposed Project may significantly alter drainage patterns which could result in increased erosion potential and runoff. Impacts would be considered as less than significant with implementation of the proposed Project design features (i.e., the provision of adequate outlet structures, storm drains to contain flows and proper bluff drainage).*	5.6-1 The City may require that the Applicant utilize slant drains for discharge over the bluffs. If, the City determines that the slant drains are required, the design of the slant drains shall be completed in accordance with the City of Rancho Palos Verdes' City Engineer's standards during the design phase of the Project. Issues that would be addressed in the design phase include: outlet siting, geotechnical considerations, and wave action impacts on the structures.	No significant impacts related to hydrology and drainage have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes codes.
	WATER QUALITY - CONSTRUCTION		
	5.6-2 *Grading, excavation and construction activities associated with the proposed Project may impact water quality due to sheet erosion of exposed soils and*	5.6-2 Prior to Grading Permit issuance and as part of the Project's compliance with the NPDES requirements, a Notice of Intent (NOI) shall be prepared and submitted to	

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	subsequent deposition of particles and pollutants in drainage areas. Impacts would be reduced to a less than significant level with incorporation of the specified mitigation measures.	the Los Angeles Regional Water Quality Control Board providing notification and intent to comply with the State of California general permit. Also, a Storm Water Pollution Prevention Plan (SWPPP) shall be completed for the construction activities on-site. A copy of the SWPPP shall be available and implemented at the construction site at all times. The SWPPP shall outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable."	
	WATER QUALITY - LONG TERM		
5.6-3	*Development of the Long Point Resort may result in a long-term impacts to the quality of storm water and urban runoff, subsequently impacting water quality. Impacts would be reduced to less than significant levels with incorporation of the specified mitigation measures and State, County, and City Development Code requirements.*	5.6-3 Prior to Grading Permit issuance, the Applicant shall prepare, to the satisfaction of the Public Works Director, a Water Quality Management Plan, which includes Best Management Practices (BMPs), Structural Measures, and Adaptive Management, under the guidelines in *Development Planning for Storm Water Management- A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* prepared by Los Angeles County Department of Public Works dated May 2000. The SUSMP is a new National Pollutant Discharge Elimination System (NPDES) Permit requirement for Los Angeles County.	
	CUMULATIVE IMPACTS		
5.6-4	*The proposed Project along with other future development may result in increased hydrology and drainage impacts in the area. Impacts are evaluated on a Project-by-Project basis in order to mitigate to a less than significant level.*	5.6-4 Impacts would be mitigated on a case-by-case basis.	

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5.7	**LAND USE AND RELEVANT PLANNING**		
	ESTABLISHED COMMUNITY		
	5.7-1 *Implementation of the proposed Project may physically divide an established community. Analysis has concluded that a less than significant impact would occur.*	5.7-1 No mitigation measures are required.	Based upon the analysis pertaining to consistency with relevant planning policies and cumulative impacts, no impacts have been identified and no mitigation measures are required.
	RANCHO PALOS VERDES GENERAL PLAN		
	5.7-2 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes General Plan. Analysis has concluded that a less than significant impact would occur with approval of a General Plan Amendment on the UPVA changing the land use designation from Recreational Passive to Recreational Active.*	5.7-2 No mitigation measures are required.	
	COASTAL SPECIFIC PLAN		
	5.7-3 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Coastal Specific Plan. Analysis has concluded that a less than significant impact would occur with approval of a Conditional Use Permit.*	5.7-3 No mitigation measures are required.	
	DEVELOPMENT CODE/ZONING ORDINANCE		
	5.7-4 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Development Code/Zoning Ordinance. Analysis has*	5.7-4 No mitigation measures are required.	

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	concluded that a less than significant impact would occur with approval of a Conditional Use Permit.		
	PROGRAM OF UTILIZATION		
	5.7-5 *Development of the Upper Point Vicente Area may conflict with the Program of Utilization. Analysis has concluded that a less than significant impact would occur in this regard provided written concurrence is obtained from the Secretary of the Interior.*	5.7-5 An Amendment to the Program of Utilization shall be prepared to concur with the uses proposed for the UPVA by the Long Point Resort Project. Approval of the Amendment to the POU shall be obtained in writing from the Department of the Interior prior to Grading Permit Issuance.	
	CUMULATIVE		
	5.7-6 *The proposed Project, combined with other future development, may increase the intensity of land uses in the area. Analysis has concluded that impacts are less than significant and no mitigation is required. Projects are evaluated on a Project-by-Project basis in accordance with the City of Rancho Palos Verdes General Plan, Coastal Specific Plan and Development Code.*	5.7-6 No mitigation measures are required.	
5.8	**MARINE RESOURCES**		
	CONSTRUCTION IMPACTS		
	Grading and Storm Drain Construction		
	5.8-1 *Grading activities and storm drain construction associated with Project implementation may disturb intertidal resources, nearshore resources, sensitive species and sensitive habitats. Impacts would be reduced to a less than significant level with implementation of mitigation (i.e.,*	5.8-1a Prior to Grading Permit issuance, the Project Applicant shall prepare/implement the following: (1) Storm Water Pollution Prevention Plan (SWPPP); (2) Best Management Practices (BMPs) identified within the State of California "California Storm Water Best Management Practice Handbook for Construction Activity"; and	Impacts to marine biological resources are reduced to a less than significant level with implementation of mitigation measures.

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	development of an Erosion Control Plan and Storm Water Pollution Prevention Plan).	(3) Construction Erosion Control Plan prior to site construction. These plans and documents shall identify dry season and wet season runoff control measures, source control, and or treatment controls that avoid and/or mitigate potential soil erosion, runoff pollutants, and other stormwater constituents. 5.8-1b Prior to Grading Permit issuance, a Storm Water Pollution Prevention Plan shall be prepared by the Applicant. This Plan shall identify source control and/or treatment control BMPs that avoid and/or mitigate runoff pollutants at the specific site to the "maximum extent practical". BMPs shall be developed to mitigate for potential adverse impacts from nutrients, heavy metals, toxic chemicals related to construction and cleaning; waste materials such as concrete wash water, paints and paint equipment, wood, paper and concrete materials related to building materials and packaging, food containers and sanitary wastes; and fuels, lubricants, and other toxicants related to construction equipment and its maintenance. 5.8-1c Prior to Grading Permit issuance, an Erosion Control Plan shall be prepared by the Applicant and submitted to the City of Rancho Palos Verdes for approval. Specific BMPs in the Erosion Control Plan shall include: • Water trucks shall be used during all grading activities to prevent visible dust emissions.	

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		• All trucks hauling debris or excavated materials shall be covered or maintain at least 2 feet of freeboard; • No grading shall occur during periods of high velocity winds exceeding 30 miles per hour; • Enclose, cover, water twice daily, or apply non-toxic chemical stabilizers to exposed stockpiles with five percent or greater silt content. • During the rainy season (October-April) or if slopes are generally exposed to erosion, the slopes shall be stabilized and compacted, and/or temporarily hydroseeded. • Silt fencing, hay bales, sand bags, temporary detention basins, and other methods that prevent the transport of dust or eroded soils into the marine environment shall be implemented. • During the rainy season, silt fences	

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		shall be installed around the perimeter of the construction site until all grading has been completed. • The construction site shall be monitored by a state-licensed civil engineering firm during construction activities and any storm events to ensure that all BMPs have been implemented and that the BMPs are effective at minimizing and avoiding dust generation or the transport of stormwater into the marine environment. 5.8-1d Prior to commencement of grading/ construction activities, contractors shall provide workers with specific guidelines to avoid and minimize disturbances to the rocky intertidal habitat and associated plant and animal communities while working on the beaches in the Project area and to remove all debris from the shoreline following completion of impact sill construction. 5.8-1e In addition to standard BMP's employed for storm drain construction, the following BMPs shall be implemented during grading/construction activities to ensure that impacts to shoreline habitats and shoreline organisms are avoided: • All beach vehicular movement shall be	

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		limited to the backshore environment behind the beach berm. • All construction debris shall be removed from the site as often as deemed necessary by the City's Construction Monitor to prevent the material from being washed out to sea on the high tides. • Coastal protection devices shall minimize intrusion into sand beach habitat. Any sand beach habitat that is disturbed during the construction habitat shall be restored to its natural state following the completion of construction.	
		5.8-1f A construction-period Water Quality Monitoring Program shall be implemented that would include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. If it is determined that tide pool or ocean water quality has been degraded by construction activities, then adaptive management techniques shall	

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		be implemented to correct water quality violations in order to prevent adverse effects on marine organisms.	
	LONG-TERM IMPACTS		
5.8-2	*Operation of the Long Point Resort Project has the potential to result in long term effects that could impact marine biological resources. Because the Project incorporates a long-term Runoff Management Plan/Water Quality Management Plan as a Project Design Feature, long term water quality impacts would be minimized. Remaining impacts would be reduced to less than significant levels with incorporation of the specified mitigation measures and compliance with State, County, and City Development Code requirements.*	5.8-2 A comprehensive Water Quality and Marine Resources Monitoring Program shall be conducted for a period of five years following completion of resort construction to ensure that source controls and BMPs are satisfactorily protecting the beneficial uses of the receiving waters and marine life. Yearly monitoring reports shall detail the results of the field surveys. If the yearly conclusions indicate that water quality and/or the marine life in the vicinity of the Long Point Resort has been adversely affected, then adaptive management strategies shall be implemented to correct runoff control deficiencies. If at the end of the fifth year the results indicate that the beneficial uses of the receiving waters are being attained, the monitoring program shall be deemed completed. The Monitoring Program shall include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. Marine biological surveys shall be conducted to document the health of key rocky intertidal species, rocky habitat quality in	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION
		the vicinity of the discharges, surfgrass distribution, and nearshore kelp bed characteristics within the immediate vicinity (less than a radius of one nautical mile) from each of the two discharges.	
	VISITOR USE		
5.8-3	*The development of the Long Point Resort hotel facilities, amenities, and golf course could potentially draw a considerable number of both local and out of town guests. Activities such as sunbathing, snorkeling, scuba diving, and fishing would increase the recreational use value of the area shoreline. Implementation of the recommended mitigation measures, including development of a visitor use plan, would reduce potential impacts to a less than significant level.*	5.8-3a The intertidal resources of the Fisherman's Cove and east to the tip of Long Point shall be actively managed on an on-going basis by the City of Rancho Palos Verdes and the Applicant to offset potentially significant impacts to intertidal marine resources. This area shall be managed as part of Conservation Area 1-A in association with the westerly bluffs below the bluff-top edge of the RHA. The area shall be designated as a Habitat Reserve. Although recreational fishing for fin fish is permitted, the Habitat Reserve Designation shall restrict certain uses below the resort hotel including commercial fishing, the collection of invertebrates, and the disturbances of plants, birds, and other animal life. 5.8-3b Prior to Occupancy Permit issuance, the City and the Applicant shall work with a qualified marine biologist to develop a Long-term Shoreline Resource Management Plan that identifies and details the means by which visitor use of the rocky outcrops of the Project area shall be actively managed. At a minimum the plan shall implement monitoring and enforcement of protected regulations herein: (1) signage; (2) enforcement of posted regulations; (3) on-site naturalists or other personnel to enforce regulations and to cite violators; (4) educational and	

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		docent programs; and (5) areas of restricted or no access.	
		5.8-3c Prior to Occupancy Permit issuance, the Applicant shall develop an educational booklet for hotel guests that provides ways to prevent ecological damage to the intertidal and subtidal habitats.	
		5.8-3d Prior to Occupancy Permit issuance, the Applicant shall develop an interpretive display at the hotel/resort that informs visitors of the area's natural resources and provides suggestions for minimizing damage to these resources.	
		5.8-3e Prior to Occupancy Permit issuance, the Applicant shall post simple, but direct and enforceable signage in multiple languages at all access points to the rocky intertidal habitats from the residential and resort areas to advise the public of the area's ecological value and to help prevent degradation of the intertidal habitat.	
		5.8-3f Prior to Occupancy Permit issuance, the Applicant and the City of Rancho Palos Verdes shall provide training for and enforcement of the Habitat Reserve shoreline on a daily basis during the summer and on weekends during the winter months between Labor Day and Memorial Day. Enforcement personnel shall have the authority to enforce local statutes and State of California laws regarding fishing limits and the illegal take of marine plants and animals.	
		5.8-3g The Project Applicant shall conduct intertidal monitoring studies to document the effects of visitor use and storm drain discharges on the Habitat Reserve	

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		intertidal and marine life. In association with surveys being conducted to assess runoff effects on marine life, the visitor use monitoring program shall include quarterly (four times/year) monitoring surveys of beach and rocky intertidal habitat use and concurrent intertidal biological resource surveys over a five-year post-construction monitoring period to determine if the management program is effective at preventing degradation of the intertidal communities. Methodology to be used shall be consistent with other long-term intertidal monitoring programs within Southern California and shall be approved by the California Department of Fish and Game. Annual reports shall be prepared and the management plan's objectives shall be evaluated and updated as necessary to ensure protection of the intertidal resources. If it is determined through survey results that after the first five years the overall management program is not effective in reducing the degradation of intertidal habitat, a written assessment of the management plan shall be prepared by the assigned marine biologist(s). This assessment shall prescribe alternative methods for improvement of habitat quality and health. The assessment report/revised program shall be reviewed by the City of Rancho Palos Verdes prior to implementation of alternative methods. The assessment/revised program	

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		shall be prepared and submitted for review prior to the completion of the sixth year after implementation of the original Resource Management Plan.	
	CUMULATIVE		
	5.8-4 *Project implementation would result in a long-term cumulative impact on marine biological resources related with visitor use and water quality degradation. Impacts would be reduced to a less than significant level with implementation of recommended mitigation measures.*	5.8-4 Refer to Mitigation Measures 5.8-1, 5.8-2 and 5.8-3.	
5.9	**NOISE**		
	SHORT-TERM CONSTRUCTION NOISE IMPACTS		
	5.9-1 *Grading and construction within the Project area may result in temporary noise impacts to nearby noise sensitive receptors. Adherence to City Code requirements would reduce construction noise impacts to a less than significant level.*	5.9-1 During grading/construction activities, the contractor shall employ the following measures to ensure that construction noise will not adversely affect adjacent sensitive uses. Construction activities shall be periodically monitored by the City to ensure compliance with applicable City Code, including the limitation of construction hours to 7:00 am to 7:00 pm, Monday through Saturday. • All construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers.	

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		• On-going inspection and maintenance of equipment. • Stationary equipment will be placed such that emitted noise is directed away from sensitive noise receivers. • Stockpiling and vehicle staging areas should be located as far as practical from the occupied dwellings adjacent to the Project site. • Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities. Several local roadways would experience noise levels in the future above standards in the absence of the proposed Project. Since the Project generated trips would further exacerbate a Projected exceedance of standards beyond established thresholds, implementation of the proposed Project would contribute to a significant and unavoidable impact for adjacent residential areas along the following roadway segments:	

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		• Palos Verdes Drive West (from Palos Verdes Drive to Hawthorne Boulevard); • Palos Verdes Drive South (from Hawthorne Boulevard to Palos Verdes Drive East); • 25th Street (from Palos Verdes Drive East to Western Avenue); and • Hawthorne Boulevard (from Palos Verdes Drive South to Palos Verdes Drive North). If the City of Rancho Palos Verdes approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.	
	LONG-TERM NOISE IMPACTS		
	Mobile Noise Impacts		
5.9-2	*Project implementation would generate additional vehicular travel on the surrounding roadway network, thereby resulting in noise level increases along these roadways. Analysis has concluded that the Project would contribute to a significant and unavoidable noise impact along several roadways.*	5.9-2 No mitigation measures are feasible.	
	Stationary Noise Impacts		

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	5.9-3 *Long-term resort operations associated with the proposed Project would result in the generation of on-site noise associated with club house activities, loading/unloading activities, mechanical equipment, parking lots, etc. The analysis has concluded that impacts would be reduced to less than significant levels with adherence to City Noise Ordinance requirements which includes shielding of equipment, loading activities and other related limitations.*	5.9-3 Prior to Final Development Plan approval, a subsequent noise analysis shall be prepared, to the satisfaction of the Director of Planning and Building and the City Engineer, which demonstrates that site placement of stationary noise sources would not exceed noise standards indicated in the State Land Use Noise Compatibility Guidelines for adjacent residences.	
	CUMULATIVE IMPACTS		
	5.9-4 *Implementation of the proposed Project, together with cumulative Projects, would increase the ambient noise levels in the Project vicinity. Vehicular traffic from the Project, and cumulative Projects would cause current exceedances of noise standards along local roadways to be exacerbated. As such, the Project combined with cumulative Projects, would contribute to a significant and unavoidable cumulative noise impact.*	5.9-4 No mitigation measures beyond compliance with State Standards and City Development Codes have been identified.	
5.10	**PUBLIC HEALTH AND SAFETY**		
	HAZARDOUS MATERIALS		
	5.10-1 *Implementation of the proposed Project may create a significant hazard to the public and the environment through the disposal of hazardous materials. Implementation of the specified mitigation would reduce impacts to a less than significant level.*	5.10-1a Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the concrete sump located in the former service station in the RHA. Results of the sampling shall indicate what level (if any) of disposal is	No significant impacts related to Public Health and Safety have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

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		needed and whether remediation efforts shall be required.	
		5.10-1b Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the liquid contained within the vault of the former sky tower on the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.	
		5.10-1c Prior to Demolition Permit issuance, site specific investigations shall be conducted to determine the contents of the interior of all structures on the RHA. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to renovation/demolition activities.	
		5.10-1d If during demolition any of the structures, paint is separated from the building materials (e.g., chemically or physically), the paint waste shall be evaluated independently from the building material to determine its proper management. According to the Department of Substances Control, if paint is not removed from the building material during demolition (and is not chipping or peeling), the material could be disposed of as construction debris (a non-hazardous waste). The landfill operator shall be contacted in advance to determine any specific requirements they may have regarding the disposal of lead-based paint materials.	

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		5.10-1e Prior to the commencement of any remedial work and consistent with the National Emission Standards for Hazardous Air Pollutants (NESHAP), building owners shall conduct an asbestos survey to determine the presence of Asbestos Containing Materials (ACMs). Prior to Demolition Permit issuance, areas shall be sampled as part of an asbestos survey.	
		5.10-1f Any demolition of the existing building shall comply with State law, which requires a contractor, where there is asbestos-related work involving 100 square feet or more of ACMs, to be certified and that certain procedures regarding the removal of asbestos be followed.	
		5.10-1g Soil sampling of the agricultural portion of the RHA shall be conducted to determine the presence or absence of banned agricultural pesticides, prior to Grading Permit issuance.	
		5.10-1h Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the level of potential contamination associated with the historic use of the UPVA. The focus of the investigation shall include, but not be limited, to the following: • Determine the actual absence or presence of the suspected underground storage tanks located near the Point Vicente Bunker. If determined present within the UPVA, soil sampling and/or	

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		testing to determine the characteristics and extent of potential contaminants shall be performed. Upon completion of soil testing and/or sampling, a Risk Assessment shall be prepared to determine the appropriate measures for remediation of the tank sites; and • The 100-square foot area of distressed vegetation located adjacent to the abandoned concrete slab in the northern portion of the UPVA shall be examined to determine the potential for a release of hazardous materials. In addition, a subsurface investigation shall be conducted to determine if any other structures or substances are located below the concrete slab. Any stained soil shall be tested to determine the absence or presence of hazardous materials. 5.10-1i Prior to Demolition Permit issuance, the Project Applicant shall coordinate with the appropriate authorities from the United	

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		States Department of Interior, National Park Service regarding any proposed modifications to the Nike missile silos.	
		5.10-1j Prior to Demolition Permit issuance or modification to the Point Vicente Bunker, a site specific investigation to determine the contents of the interior shall be conducted. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to modification/ demolition activities.	
		5.10-1k Prior to Grading Permit issuance, soil sampling of the agricultural portion of the Upper Point Vicente Area shall be conducted to determine the presence or absence of banned agricultural pesticides.	
	GOLF COURSE SAFETY		
	5.10-2 *Development of the proposed golf course and practice facility may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*	5.10-2a The proposed golf course design shall be modified prior to Development Plan approval, to the satisfaction of the Planning Department, pursuant to the recommendations cited in the Golf Safety Study contained in Appendix 15.11, *Golf Course Peer Review and Safety Analysis*, of this EIR (September 15, 2000) as follows: Hole # 1. Additional support (i.e., higher mounding) shall be added along the parking area by providing vegetation on top of the mounding. The tee shall be moved back slightly to the left. Hole # 2. The back two tee complexes shall be moved to the left and down the slope.	

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The sand bunker shall be moved toward the green.

Hole # 3. This hole shall be made a Par 4. The green shall be located beyond the shallow draw near what is now the proposed second landing area.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary and shall be retained, however, the fairway area shall be cut by five to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway shall be at 355 feet while the sides (rough areas) shall be five to ten feet higher.

The first landing area shall be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

One of the two following options shall be implemented regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

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- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4. The fifth tee location shall be moved to the south by 35 to 40 feet and a retaining wall provided similar to that around the fourth tees. The landing area on the fourth shall move by approximately 30 feet. Signage shall be provided on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee. The overall profile of the entire third and fourth fairways shall be lowered for improved vision with each shot. Also refer to the Hole #3 discussion.

Hole # 5. Two or three more bunkers shall be added down the slope to the right of the green. The back tee shall be moved to the south. One or the other of the following recommendations shall be implemented:

- The hole shall be shorted slightly by

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		moving the green back towards the tee; or • Dense vegetation of medium height shall be added to screen against long shots landing near the pedestrian trails. Hole # 6. A bunker or strong shaping (grass hollows) shall be provided between the sixth green and first tee. The back tee on the first hole shall be moved to the left slightly (closer to the property boundary). Hole # 7. Additional support (i.e., higher mounding) shall be added on the back left. The cart path shall be relocated behind the back tee and down the left-hand side. Hole # 8. The landform to the right of the eighth tees shall be landscaped to protect players from shots off the ninth tee. Hole # 9. Vegetation shall be added to the right hand support (higher mounding) past the landing area. The walking trails shall be screened with small to medium height vegetation near the landing.	
		5.10-2b The Project Applicant shall, to the satisfaction of the Planning Department, implement one or the other of the following modifications to the practice	

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		facility's design prior to Development Plan approval: • The low area between the range and property boundary shall be excavated out. The range's elevation shall be decreased by between 10 and 15 feet and then revegetated with native materials; or • The elevation of the driving range tee shall be lowered to approximately the 230-foot elevation.	
	EMERGENCY RESPONSE PLANS		
5.10-3	*Implementation of the proposed Project may impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan for the area. Analysis has concluded that compliance with the City Development Code would result in a less than significant impact.*	5.10-3 No mitigation measures are required.	
	FIRE ANTS		
5.10-4	*Development of the proposed golf course and practice facility may introduce fire ants which may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*	5.10-4a Prior to delivery to the UPVA and the RHA, all nursery stock and other items likely to carry fire ants shall be inspected for their presence and identified as free of ants by the landscape and native plant nursery used for the Project. 5.10-4b The Project Applicant shall develop for the suppression of fire ants a Fire Ant	

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		Management Program. The Program shall be included as part of the Landscaping Plans for both the UPVA and RHA and shall be submitted for review and approval to the City Planning Department prior to Landscape Plan approval. The Program shall include measures that (1) identify appropriate treatments that can be administered most effectively and at the right times, (2) identify the area to be managed and establish a level of acceptable pest presence/damage/tolerance, (3) establish regular monitoring visits as part of the landscape maintenance program, and (4) treat infestation when monitoring indicates that the situation exceeds the established level of presence.	
	CUMULATIVE IMPACTS		
	5.10-5 *The proposed Long Point Resort, in combination with other cumulative Projects, may increase exposure of the public to hazardous substances, or interfere with emergency response plans.*	5.10-5 No mitigation measures are required.	
5.11	**PUBLIC SERVICES AND UTILITIES/SERVICE SYSTEMS**		
	PUBLIC SERVICES		
	Fire Protection		
	5.11-1 *The proposed Project may result in significant physical impacts with respect to fire protection. Potential fire service impacts are considered less than significant after mitigation and compliance with all applicable codes and ordinances.*	5.11-1 Prior to Grading Permit issuance for the UPVA, the Project Applicant shall consult with the Los Angeles County Fire Department with respect to avoidance of Helispot Pad #53A or the provision of an alternate pad within the Project area.	No unavoidable significant impacts related to public services and utilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Codes.

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	Police Protection		
	5.11-2 *Project implementation may result in significant physical impacts with respect to police protection. Potential impacts would be reduced to a less than significant level with implementation of the specified mitigation.*	5.11-2 The Project Applicant shall, to the satisfaction of the City Planning Department, implement the following measures: • Minimize number of compact parking spaces; • Maximize required signage; • Provide Sheriff's Department a minimum of 30 days prior notice of upcoming events; and • Provide additional traffic control measures beyond public traffic signals at the main entrance to the Resort.	
	Schools		
	5.11-3 *Project implementation may result in significant physical impacts to existing school facilities. Analysis has concluded that a less than significant impact would occur in this regard.*	5.11-3 No mitigation measures are required.	
	Libraries		
	5.11-4 *Project implementation may result in an increase in demand for library service. However, the proposed Project would not result in significant physical impacts to library facilities and a significant impact is not anticipated in this regard.*	5.11-4 No mitigation measures are required.	

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	UTILITIES AND SERVICE SYSTEMS		
	Wastewater (Sewer)		
	5.11-5 *Project implementation may generate additional wastewater beyond current conditions and may require an incremental expansion of the existing sewerage system and expansion of the water treatment facility. With payment of appropriate connection fees impacts to wastewater systems and facilities would be considered as less than significant.*	5.11-5 No mitigation measures are required.	
	Water		
	5.11-6 *Project implementation may increase the demand for water beyond current conditions requiring the expansion of existing facilities. Analysis has concluded that a less than significant impact would occur in this regard.*	5.11-6 No mitigation measures are required.	
	Solid Waste		
	5.11-7 *Development of the Project area may result in increased solid waste generation. Project compliance with the City's AB 939 waste reduction requirements would reduce the amount of solid waste which is disposed of at the landfill and maintain potential impacts at less than significant levels.*	5.11-7 The Project Applicant shall, to the satisfaction of the City Public Works Department, implement the following on an on-going basis: • Grasscycle, use as mulch, or compost all greenwaste generated from the Golf Course; • Recycle all bottles, aluminum cans, glass, and foodwaste. The foodwaste generated on-site may be used for composting efforts	

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		if the Project Applicant desires; and • Annual reports shall be prepared and submitted to the City Public Works Department on the progress of the recycling program. This report shall include the amount of tonnage which has been diverted to trash, recycling, composting and grasscycling.	
	Electric		
5.11-8	*Project implementation may result in an increase in the demand for electrical service beyond existing conditions and may require expansion of the existing electrical system. Analysis has concluded that impacts would be less than significant.*	5.11-8 No mitigation measures are required.	
	Natural Gas		
5.11-9	*Project implementation may result in an increase in the demand for natural gas service beyond existing conditions and may require expansion of the existing gas system. Analysis has concluded that a less than significant impact would occur in this regard.*	5.11-9 No mitigation measures are required.	
	Telephone		
5.11-10	*Development of the proposed Project would result in the need for additional telephone service beyond existing conditions. Analysis has concluded*	5.11-10 No mitigation measures are required.	

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	that a less than significant impact would occur in this regard.		
	CUMULATIVE IMPACTS		
	5.11-11 *Cumulative development may result in an increase in the demand for public services and an increase in the consumption rates for public utilities, potentially requiring expansions of the existing utility systems. Analysis has concluded that cumulative development is subject to standards and requirements of reviewing agencies and no additional mitigation is required.*	5.11-11 No mitigation measures are required.	
5.12	**TRAFFIC AND CIRCULATION**		
	TRAFFIC GENERATION		
	5.12-1 *Project implementation may cause a significant increase in traffic when compared to the traffic capacity of the street system and may exceed an established LOS standard. Implementation of the specified mitigation measures would reduce impacts to a less than significant level.*	5.12-1a Prior to Occupancy Permit issuance, Palos Verdes Drive South, adjacent to the Project site, shall be constructed at its ultimate width at a 100 foot right-of-way. 5.12-1b Prior to Occupancy Permit issuance, a 150-foot minimum left turn pocket shall be provided for vehicles traveling west on Palos Verdes Drive South and desiring to turn left into the main access to the Project site. 5.12-1c Prior to Occupancy Permit issuance, access to the driving range shall be restricted to right turns in/out only. 5.12-1d Prior to Occupancy Permit issuance or when warranted, a traffic signal shall be installed by the Project Applicant at the Project Entrance (NS) at Palos Verdes Drive South (EW).	No significant impacts related to Traffic and Circulation have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

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		5.12-1e Prior to Occupancy Permit issuance, the Project Applicant shall make the following roadway improvements: • Silver Spur Road (NS) at Hawthorne Boulevard (EW) - Restripe south leg with two left turn lanes, one through lane and one right turn lane and - Provide north leg with one left turn lane, two through lanes and one right turn lane • Hawthorne Boulevard (NS) at Palos Verdes Drive North (EW) - Provide west leg with one left turn lane, one shared left/ through lane, one through lane and one right turn lane • Western Avenue (NS) at 25th Street (EW) - Provide east leg with one left turn lane, two through lanes and one right turn lane	

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	CONGESTION MANAGEMENT PLAN (CMP) ANALYSIS		
	5.12-2 *The proposed Project may exceed standards established by the Los Angeles County CMP. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*	5.12-2 Refer to Mitigation Measure 5.12-1.	
	INTERNAL CIRCULATION AND Project ENTRY GEOMETRICS		
	5.12-3 *Project implementation may significantly increase hazards due to a design feature. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*	5.12-3a Sight distances at the Project entrances shall be further reviewed with respect to standard Caltrans/City of Rancho Palos Verdes sight distance standards at the time of preparation of final grading, landscape and street improvement plans. 5.12-3b Internal traffic signing/striping shall be implemented in conjunction with detailed construction plans for the Project.	
	PARKING CAPACITY		
	5.12-4 *Project implementation may result in inadequate parking capacity. Analysis has concluded that the Project proposes adequate on-site parking to meet the demand created by the proposed uses by the City of Rancho Palos Verdes standards. This would result in a less than significant impact. Mitigation would be required with respect to occasional use of the public parking areas for hotel/golf uses.*	5.12-4 The use of public parking areas for hotel/golf uses shall be restricted unless a Conditional Use Permit or other approval from the City is obtained.	
5.13	**RECREATION**		
	EXISTING RECREATIONAL ACTIVITY		
		5.13-1 No mitigation measures are required.	

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	5.13-1 *Project implementation may increase the use of existing neighborhood and regional parks and other recreational facilities thereby creating the potential for physical deterioration of each facility. Analysis has concluded that a less than significant impact would occur in this regard.*		No unavoidable significant impacts related to parks and recreational facilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.
	PROPOSED RECREATIONAL ACTIVITY/ FACILITIES		
	5.13-2 *The proposed Project would include recreational facilities which may result in physical impacts on the environment. Compliance with the City Development Code and implementation of mitigation measures specified in Sections 5.1 through 5.12 of this EIR would reduce impacts to a less than significant level.*	5.13-2 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.	
	PATH AND TRAILS NETWORK		
	5.13-3 *The proposed Project would include a trails network which may have a physical effect on the environment. A less than significant impact would occur following compliance with the City Development Code and implementation of mitigation measures specified in Sections 5.1 through 5.12.*	5.13-3 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.	
	5.13-4 *The Project's proposed trails network may conflict with the policies and recommendations identified in the General Plan and Coastal Specific Plan. Analysis has concluded that the Project would be consistent with the recommendations and a less than significant impact would occur.*	5.13-4 No mitigation measures are required.	
	PARKS MASTER PLAN		

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	5.13-5 *The recreational components of the proposed Project may conflict with the City's Parks Master Plan. Analysis has concluded that a less than significant impact would occur in this regard.*	5.13-5 No mitigation measures are required.	
	PALOS VERDES CONCEPTUAL TRAILS PLAN		
	5.13-6 *The recreational components of the proposed Project may conflict with the City's Conceptual Trails Plan. Analysis has concluded that a less than significant impact would occur in this regard.*	5.13-6 No mitigation measures are required.	
	PALOS VERDES CONCEPTUAL BIKEWAYS PLAN		
	5.13-7 *The recreational components of the proposed Project may conflict with the City's Conceptual Bikeways Plan. Analysis has concluded that a less than significant impact would occur in this regard.*	5.13-7 No mitigation measures are required.	
	CUMULATIVE		
	5.13-8 *Cumulative development may increase the use of existing recreational facilities, thereby creating the potential for physical deterioration of each facility. Additionally, cumulative development may include recreational facilities with the potential to result in physical impacts on the environment. Mitigation necessary for reducing Impacts on recreational facilities to a less than significant level would be*	5.13-8 No mitigation measures are required.	

EIR SECTION	IMPACTS	MITIGATION MEASURES	SIGN
	identified on a Project-by-Project basis.		

2.3 SUMMARY OF PROJECT ALTERNATIVES

In accordance with CEQA Guidelines Section 15126.6, Section 7.0 of this EIR, describes a range of reasonable alternatives to the proposed project which could feasible attain the basic project objectives, while evaluating the comparative merits of each alternative. The following is a summary of the description of each alternative analyzed in Section 7.0.

"NO DEVELOPMENT" ALTERNATIVE

The "No Development" Alternative would retain the site in its current condition. None of the improvements proposed as part of the Project and/or the existing entitlements would occur. The following discussion evaluates the potential environmental impacts associated with the No Development Alternative as compared to impacts from the proposed Project.

"NO PROJECT" ALTERNATIVE

The "No Project" Alternative involves development of the RHA based upon the existing entitlements. In 1989, approval by the City and the Coastal Commission was granted for development of the RHA. The entitlements issued were for development of the following land uses:[1]

- 390 new rooms plus 10 refurnished rooms
- 50 casitas
- 9-hole golf course
- 30,000 square-foot conference center
- Galley West Restaurant rehabilitation
- 25,000 square foot spa/fitness center
- 8 tennis courts
- 30,000 square foot country market/café
- 102.2 total acres

The Conditional Use Permit and Coastal Development Permit approvals have received extensions from the City and Coastal Commission through September 11, 2001 and remain viable entitlements, independent of the current proposed Project.

The approximately 1.4-acre parcel owned by Cigna, which extends along and defines the eastern property line of the RHA (west of Nantasket Drive), was not a part of the resort hotel and conference center development described above.

[1] Correspondence: Dave Snow, November 22, 2000.

This alternative would be generally similar to the proposed Project, however, would exclude the use of the UPVA, resulting in a more intensified use of the RHA. The majority of the proposed Project components would be developed, as well as additional land uses not currently proposed by the Project. Overall, this alternative would involve more intensive development, contained in a smaller geographical area, than the proposed Project.

WITH COAST GUARD SITE ALTERNATIVE

The "With Coast Guard Site" Alternative would add to the Project the approximately 3.9-acre site on the UPVA that was retained by the U.S. Coast Guard when the federal government transferred ownership of the bulk of the UPVA to the City in 1975 (refer to Exhibit 7-1, *With Coast Guard Site Alternative)*. Existing uses at this site include asphalt walkways, remnants of a World War II military battery and undeveloped lands. Implementation of this alternative would increase the size of the Project's UPVA from 64.9 to 68.8 acres (an increase of approximately six percent). The additional acreage would be used for the following:

- Approximately 1.8 acres of native habitat that is preserved/restored/created;
- Approximately 0.9-acre expansion to the proposed City Hall Park Expansion; and
- Approximately 1.2 acres golf course expansion.

RELOCATE PRACTICE FACILITY - OPTION "A" ALTERNATIVE

The "Relocate Practice Facility - Option "A"" Alternative involves relocation of the Project's proposed golf practice facility to the undeveloped land located adjacent to the City's Point Vicente Interpretive Center (PVIC), on the Lower Point Vicente Area (LPVA) (refer to Exhibit 7-2, *Relocate Practice Facility - Option "A" Alternative*). A portion of the approximately nine acres vacated by relocation of the golf practice facility would be used for the creation of new habitat, creating a larger conservation zone in the northern portion of the UPVA.

RELOCATE PRACTICE FACILITY - OPTION "B" ALTERNATIVE

The "Relocate Practice Facility - Option "B" Alternative involves relocation of the Project's proposed golf practice facility to the eastern portion of the RHA, between the Entry Road and Hole #9. The golf practice facility would displace Golf Holes #7 and #8 in the RHA. The displaced golf holes would replace the golf practice facility in the UPVA (refer to Exhibit 7-3, *Relocate Practice Facility - Option "B" Alternative*).

NO RESORT VILLAS - OPTION "A" ALTERNATIVE

The "No Resort Villas - Option A" Alternative would exclude the Resort Villas proposed for development in the northeastern portion of the RHA and adjacent to Rancho Palos Verdes Drive South (refer to Exhibit 7-4, *No Resort Villas - Option A Alternative*). Hole 5 of the golf course would be relocated from the UPVA to the area vacated by the Resort Villas on the RHA and renumbered. The vacated Hole 5 location would be used for the creation of new habitat, creating a larger conservation zone in the southeastern portion of the UPVA.

NO RESORT VILLAS - OPTION "B" ALTERNATIVE

The "No Resort Villas - Option B" Alternative would exclude the Resort Villas proposed for development in the northeastern portion of the RHA (refer to Exhibit 7-5, *No Resort Villas - Option B Alternative)*. The golf practice facility would be "switched" with Hole 8, relocated from the UPVA to the eastern portion of the RHA and it would be replaced by relocating Hole 8 to the UPVA vacated by the practice facility. Hole 7 would be relocated to the area vacated by the Resort Villas. The portion of the UPVA vacated by the practice facility not used for a golf hole would be used for the creation of new habitat, creating a larger conservation zone in the northwestern portion of the UPVA.

PROGRAM OF UTILIZATION ALTERNATIVE

The "Program of Utilization" Alternative would involve development of only the UPVA with recreational uses. This Area was transferred to the City of Rancho Palos Verdes in October 1979 by the United States Department of the Interior, National Park Service "for public park and public recreation area purposes". The Deed established a Program of Utilization (POU) for the transferred property. The POU provides for the development of both active and passive recreational uses on the property. The recreational uses identified in the POU are detailed in Table 5.7-1, *Program of Utilization*, and illustrated in Exhibit 5.7-4, *Program of Utilization Conceptual Plan*. This alternative results in a more intensive development of the UPVA than does the proposed Project.

POINT VICENTE PARK ENHANCEMENT ALTERNATIVE

The "Point Vicente Park Enhancement" Alternative was presented by the Save Our Coastline II (SOC II) citizens group. This alternative would involve only the UPVA, utilizing the areas by the City Hall for active recreation and gradually merging into more passive recreation areas near the bluffs (refer to Exhibit 7.6, *Point Vicente Park Enhancement Alternative*). The majority of the land would be preserved or restored as native habitat with the participation of community groups. A series of trails would be designed to provide access to areas for views of the coastline and ocean or for more social activities. Landscaping to enhance the City Hall and conceal the maintenance yard would be provided. Overall, this alternative results

in a less intensive development of the UPVA than does the proposed Project, or the Program of Utilization Alternative discussed above.

3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

The proposed Long Point Resort Project encompasses approximately 168.4 acres in the City of Rancho Palos Verdes, California. The City of Rancho Palos Verdes (City) is located in southwestern Los Angeles County, along the Palos Verdes Peninsula of the Southern California coastline and approximately 25 miles southwest of downtown Los Angeles (refer to Exhibit 3-1, *Regional Vicinity*).

As depicted on Exhibit 3-2, *Project Vicinity*, the proposed Project generally involves two geographical areas: the Resort Hotel Area (RHA) and the Upper Point Vicente Area (UPVA). The following discussion details the location and setting for both of these Project areas.

Resort Hotel Area

The RHA involves approximately 103.5 acres situated south of Palos Verdes Drive South, on the Long Point site within the Rancho Palos Verdes' Coastal Specific Plan area. The RHA is the location of the former Marineland Aquatic Park. This area is bounded by Palos Verdes Drive South to the north, the Pacific Ocean to the south, residential areas to the east, and the Pacific Ocean and open space to the west. Improvements associated with Marineland resulted in the development and grading of a vast majority of this site. Although the parking lots, roads and several structures associated with Marineland still exist today, the majority of the structures were demolished in 1988. Buildings which remain standing include, among others, the Galley West Restaurant and Bar, Pereira Motel, Lookout Point Bar, and the still-operating Catalina Room, a banquet facility. The RHA is currently used for several property offices (including those of the landowner, York Long Point Associates (YLPA)), weddings, and occasional movie shoots.

Upper Point Vicente Area

The inland component of the Project is referred to as the Upper Point Vicente Area. This approximately 64.9-acre area lies outside of the City's Coastal Specific Plan Area and the State's Coastal Zone. The UPVA is bounded by a neighborhood shopping center (Golden Cove), a church (St. Paul's Lutheran Church), and a residential condominium complex (Villa Capri) to the north, and by Palos Verdes Drive South and Palos Verdes Drive West to the south and west. Situated to the east of this area the Salvation Army Regional Training Center and the City of Rancho Palos Verdes City Hall. A 3.9-acre U.S. Coast Guard site forms an island within the UPVA (west of the City Hall), however, is not a part of the Project.

NOT TO SCALE

LONG POINT RESORT EIR

Regional Vicinity

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 3-1

NOT TO SCALE

SOURCE: FORMA

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Project Vicinity

Exhibit 3-2

Overall, this area has been extensively graded for military and agricultural uses. Situated south of the City Hall and within the limits of this area is the City's Corporate Yard (approximately four acres) which includes outdoor storage and maintenance facilities. Situated within the City's Corporate Yard are silos which are remnants of the Area's past use as a missile facility. A fire access road traverses through this area extending from the City Hall to the U.S. Coast Guard site. Existing uses on the U.S. Coast Guard site include governmental and commercial uses related to an on-site antenna. Situated along the Area's eastern boundary, adjacent to the Salvation Army's property, is an approximately 3.6-acre area presently used for agricultural purposes.

SURROUNDING LAND USES

Uses surrounding the Long Point Project site are illustrated on Exhibit 3-3, *Land Use Map*, and summarized below:

Point Vicente Fishing Access/Beach

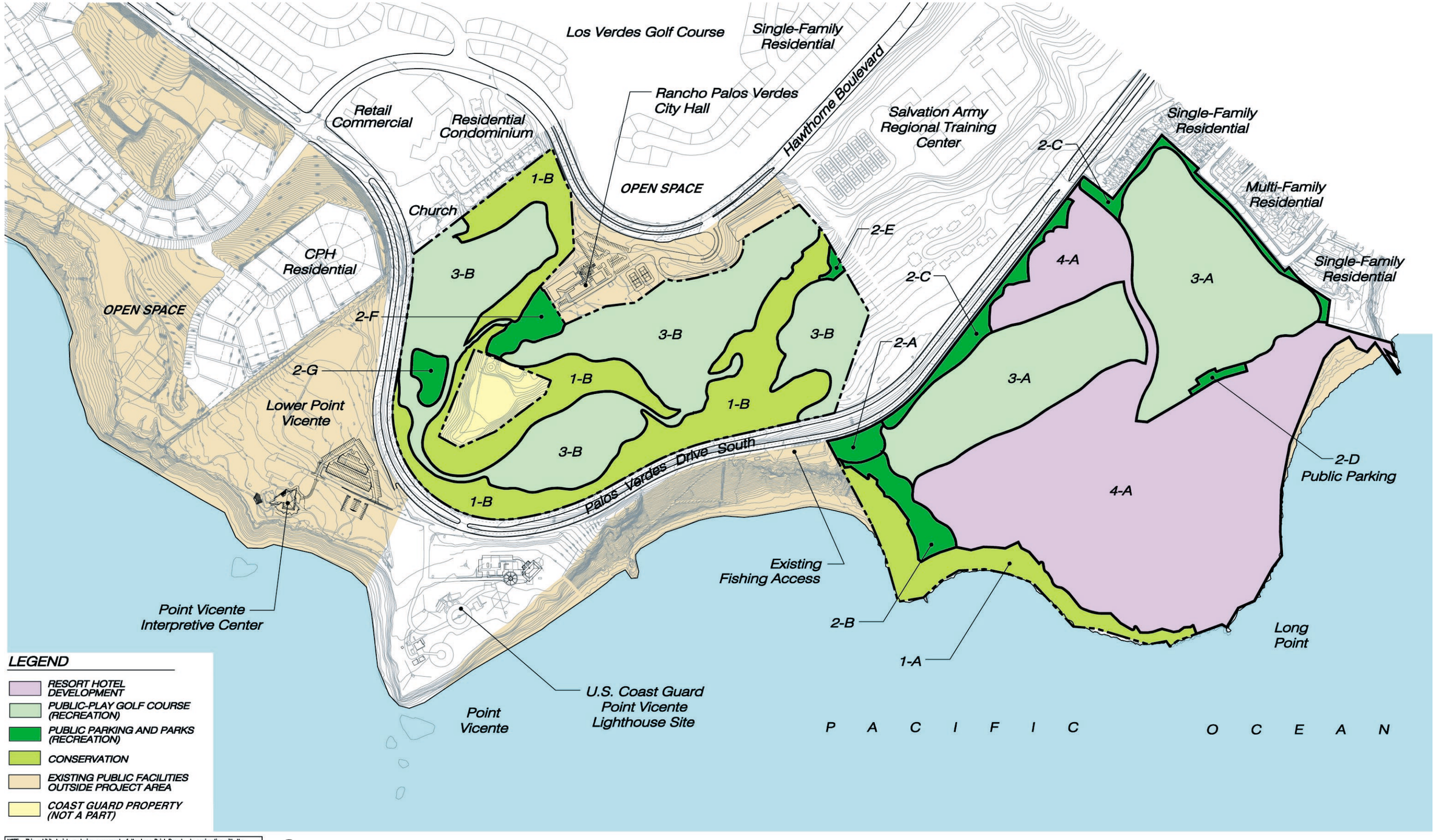
The Point Vicente fishing access is a fully-developed and heavily-used approximately 10.5-acre site owned by the County of Los Angeles. This fishing access is situated immediately west of the RHA. Approximately 46 public parking spaces and a restroom structure are located on top of the bluff directly adjoining Palos Verdes Drive South.

Point Vicente Lighthouse

Point Vicente Lighthouse involves an approximately 18.9-acre site situated northwest of the RHA, on a plateau atop Point Vicente. Erected in 1926, it flashes a two-million candlepower light more than 20 miles to sea. The addition of a radio station, living quarters and helicopter landing pad historically made Point Vicente Lighthouse a principal communication center for the U.S. Coast Guard in Southern California, as well as a base for rescue operations.

Point Vicente Interpretive Center

The Point Vicente Interpretive Center, situated immediately east of the Point Vicente Lighthouse, was opened by the City of Rancho Palos Verdes in the summer of 1976. Current improvements include the Interpretive Center building, small amphitheater, scenic overlooks, a turf area and landscaping. Shoreline access from this site is currently precluded by the steep topography of the bluff. Construction of a 7,437 square-foot expansion of this facility was started by the City in the late 1990s. However, completion of the expansion has since been delayed due to the discovery of lead in the property’s soil.



NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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SOURCE: FORMA

RBF CONSULTING

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LONG POINT RESORT EIR

Land Use Map

Exhibit 3-3

Residential Areas East of the Resort Hotel Area

Property to the east of the RHA is zoned and developed for a mixture of medium- and low-density residential developments. Paralleling the RHA's eastern boundary and located on the east side of Nantasket Drive are The Villas, a four-story apartment complex. Situated to the north of The Villas along Channel View Court and Beachview Drive are townhouses and single-family homes. Along Seacove Drive and directly fronting the bluffs, the land is zoned for one-acre lots and has been developed with single-family homes.

Salvation Army Regional Training Center

The Salvation Army Regional Training Center is located immediately adjacent to the UPVA's eastern boundary. This property involves a campus of educational buildings, housing and recreation facilities which are operated as the Salvation Army's Western Regional Headquarters and Training Center. A 12-court tennis complex and the majority of the campus buildings are located along the northern portion of the property, while a cluster of housing units constructed in the mid 1980's are located in the southern portion. Access to the center is provided via Crestmont Lane, a private entry road which is aligned directly opposite from the historic Marineland Aquatic Park entry. The Salvation Army property was zoned Institutional (I) when the City was incorporated in 1973.

Mixed Use Area at Hawthorne Boulevard and Palos Verdes Drive

Three developments compose the southeast corner of Hawthorne Boulevard and Palos Verdes Drive South intersection:

- Golden Cove Neighborhood Shopping Center. The Golden Cove Shopping Center is located directly at the intersection and includes a variety of neighborhood retail, commercial and convenience services, as well as several restaurants.

- St. Paul's Lutheran Church. St. Paul's Lutheran Church is situated along Palos Verdes Drive, between the shopping center and the lower portion of the UPVA.

- Capital Pacific Holdings (CPH) Residential Tract (within Subregion 1). Residential Tract Map No. 46628 is currently being developed by Capital Pacific Holdings, Inc. This development is located in Subregion 1 of the City's Coastal Specific Plan, generally north and west of the Hawthorne Boulevard/Palos Verdes Drive South intersection. The development encompasses a gross area of approximately 132 acres and is being developed as a Planned Residential Development for 79 single-family homes. Of the 132

acres, 27 acres is preserved as coastal bluff scrub for habitat restoration along the bluff face and 44 acres is designated as open space.

3.2 BACKGROUND AND HISTORY

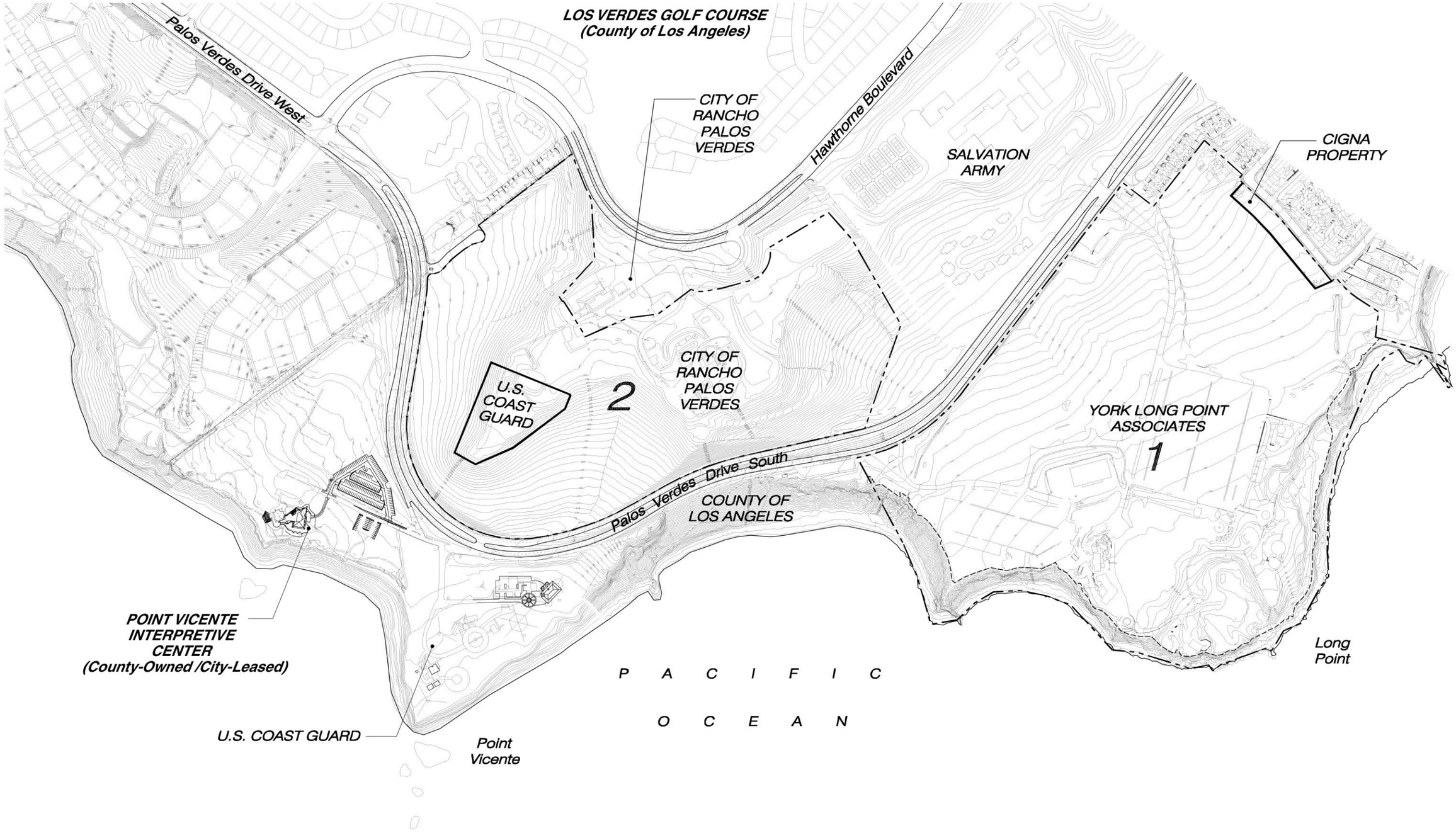
Land ownership within the Project area is detailed in Table 3-1, *Property Ownership* and illustrated on Exhibit 3-4, *Property Ownership Map*. As indicated in Table 3-1 and Exhibit 3-4, York Long Point Associates owns or controls approximately 61 percent of the Project area, while the City owns approximately 39 percent. Details regarding the ownership, as well as the jurisdictions pertaining to the two Project areas, are provided in Table 3-1.

TABLE 3-1
PROPERTY OWNERSHIP

Geographical Area	York Long Point Assoc.	City of Rancho Palos Verdes	Cigna	Total	Within Coastal Zone
Resort Hotel Area	102.1	0.0	1.41	103.5	103.5
Upper Point Vicente Area	0.0	64.9	0.0	64.9	0.0
Total	**102.1**	**64.9**	**1.4**	**168.4**	**103.5**

Resort Hotel Area

The RHA is owned by York Long Point Associates (YLPA), with the exception of an approximately 1.4-acre parcel owned by Cigna which extends along the eastern property line of the site, west of Nantasket Drive. Historically, the Long Point parcel remained undeveloped land until construction of the Marineland Aquatic Park was initiated in 1953. The park opened on August 28, 1954, and occupied a unique niche in the Southern California attractions market for a number of years, with attendance peaking at over one million persons per year. In the early 1980's, attendance and revenue began to decline, operating losses mounted and the park was closed on March 1, 1987, shortly after its purchase by Harcourt, Brace & Jovanovich. Soon after, the Marineland fish, animals, and equipment were transferred to Sea World in San Diego. Numerous facilities, including the majority of all aquatic tanks, were demolished in 1988. Remnants of Marineland's physical



NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

NOT TO SCALE

SOURCE: FORMA

RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Property Ownership Map

Exhibit 3-4

improvements continue to be utilized today. Buildings which remain on-site include, among others, the Galley West Restaurant and Bar, Pereira Motel, Lookout Point Bar, and the Catalina Room. No additional structures or facilities have been constructed or developed within the RHA. Additionally, an occupied farmhouse is situated in the northeastern corner of the site, near the intersection of Beachview and Nantasket Drives. The northeast portion of the site was utilized in the past for agricultural production, however, it is currently primarily fallow.

Three months after Marineland closed, Harcourt, Brace & Jovanovich sold the land and assets to the Monaghan Company. It was the objective of the Monaghan Company to develop a world class resort hotel and conference center with a full range of recreational amenities. On January 31, 1990, the Monaghan Company submitted to the City of Rancho Palos Verdes its application for development of a 531-room hotel, a 60,000-square foot conference center, 295 casita units, a 48,500-square foot athletic club, a 10,000-square foot café and flower market, a 200-room hotel, and a private heliport. On July 2, 1991, the City Council certified Environmental Impact Report No. 29 (State Clearinghouse No. 880-62211) which was prepared to assess the potential environmental impacts associated with the proposed development. Also in 1991, 102 acres of the RHA received City and Coastal Commission development entitlements, including a Conditional Use Permit (CUP) and Coastal Development Permit (CDP) to allow construction of a 400-room hotel, 50 casitas units, a 9-hole golf course, and various commercial and visitor-serving facilities. In 1995, York Long Point Associates, the current landowner, purchased the property. The CUP and CDP have been extended by the City and the California Coastal Commission at the request of York Long Point Associates through September 11, 2001 and remain viable and independent of the current proposed Project.

Upper Point Vicente Area

The approximately 64.9-acre UPVA is owned by the City of Rancho Palos Verdes.[1] The United States Army had occupied portions of this area for use as coastal defense bunkers during World War II and as a Nike air-defense missile facility during the middle of the Cold War. The Army discontinued use of the Nike missile sites on the Palos Verdes Peninsula in 1974. In 1978, the City acquired the UPVA (along with an additional 10.63 acres, a 75.53-acre total) from the federal government. An approximately eight-acre portion of this area is owned outright by the City. The remainder was transferred to the City under the Land to Parks Program, carrying a deed restriction requiring use of the land only for public recreation purposes. The approved Program of Utilization (POU) for the transferred deed restricted property includes an active recreation area, picnic/open space area

[1] The U.S. Coast Guard owns approximately 3.9 acres which forms an island within the western portion of this area, however, it is not a part of the Project site.

with trails, and parking.[2] Additionally, the federal government transferred the Point Vicente Bunker site to the U.S. Coast Guard (approximately 3.9 acres). This approximately 3.9-acre property is presently owned by the U.S. Coast Guard and is used as the location of an antenna and for storage of communication equipment.

The Rancho Palos Verdes City Hall and Corporate Yard were relocated to the eastern portion of the UPVA in 1975, utilizing buildings adapted from the missile facility. Remnants of the missile facility include two approximately 3,000 square foot underground bunkers situated behind the bluff, adjacent to and underneath the City's existing corporate yard. Other military facilities include a World War II-era bunker at the front of the point on the U.S. Coast Guard property. An approximately nine-acre area in the lower portion of the City's property (adjacent to the Salvation Army's property) is presently used for agriculture.

3.3 PROJECT CHARACTERISTICS

The Long Point Resort Project is intended to be a multi-faceted destination Resort. The Resort is planned to provide conserved/enhanced habitat and public open space/recreation facilities, including a public golf practice facility, a 9-hole public-use golf course, 100 general public parking spaces, two shoreline access ramps, seven public parks and overlooks, and 11.1 miles of public walking/hiking trails (linking visitor-serving areas of the Resort with public facilities within the surrounding area). The cornerstone of the Long Point Resort is a full-service hotel.

Implementation of the proposed Project would require the following discretionary approvals from the City of Rancho Palos Verdes:

- Approval of a General Plan Amendment (GPA No. 28) on the UPVA to change the land use designation from Recreational Passive to Recreational Active;

- Approval of a Conditional Use Permit (CUP No. 216) on the UPVA for construction of the proposed golf course, golf practice facility and related ancillary uses within the Open Space Recreational District (OR) and Institutional District (I);

- Approval of a Conditional Use Permit (CUP No. 215) on the RHA for construction of the proposed resort/conference hotel and golf course within the Commercial Recreational District (CR), and for CSP requirement that a CUP be obtained for "any future development along the former Marineland site";

[2] Correspondence: U.S. Department of the Interior National Park Service Correspondence, July 20, 1999.

- Approval of a Coastal Development Permit (CDP No. 166) on the RHA for construction of the proposed resort/conference hotel and golf course;

- Approval of a Tentative Parcel Map Application (TPM No. 26073) on the RHA for the reconfiguration of the land parcels that make up this area;

- Approval of a Grading Permit (GRP No. 2229) on the RHA to grade for subdivision, master grading and infrastructure improvements;

- Approval of a Grading Permit (GRP No. 2230) on the UPVA to grade for subdivision, master grading and infrastructure improvements;

Additionally, the proposed Project involves improvements to the City-owned property situated off-site, between the UPVA and Hawthorne Boulevard. Proposed improvements include reconfiguration of the Rancho Palos Verdes City Hall parking area and relocation of the City's existing Corporate Yard. Refer to the *Off-Site Improvements* discussion below for further details pertaining to these proposed improvements.

LAND USE PLAN

The Land Use Plan for the Long Point Resort is illustrated on Exhibit 3-3, *Land Use Map*, and outlined in Table 3-2, *Land Use Summary*. As shown on Exhibit 3-3 and Table 3-2, the Project is divided into three (3) distinct land use districts: the Conservation District; the Recreation District; and the Resort Development District. These Districts are divided into four (4) planning areas which in turn are divided into 12 Project components.

Conservation District

The Conservation District involves native habitat conservation and enhancement within the Habitat Conservation/Enhancement Planning Area as detailed in Table 3-2, *Land Use Summary,* and as described below (refer to Exhibit 5.3-6, *Biological Resources Preservation/Enhancement Areas Within the UPVA*).

The Long Point Habitat Conservation, Restoration, and Enhancement Program is proposed to provide for native habitat conservation and enhancement within Conservation Planning Areas 1-A and 1-B, as well as restored and new habitat

TABLE 3-2
LAND USE SUMMARY

Land Use Plan Category	Planning Area	Resort Component	Size		
			Gross Acres	Percent of Area	Overnight Accom. (rooms/units)
Conservation	**1**	**Habitat Conservation/Enhancement:**			
	1-A	Bluff-face/Habitat Reserve Below Resort Hotel	6.7	4%	0
	1-B	Upper Point Vicente Area Coastal Sage Scrub Habitat	24.9	15%	0
		Subtotal - Conservation	***31.6***	***19%***	***0***
Recreation	**2**	**Public Parking, Parks, Trails, Coastal Access, and Shore Area**			
	2-A	Fishing Access Parking Expansion	1.0	1%	0
	2-B	Bluff-Top Park	2.2	1%	0
	2-C	Palos Verdes Drive Trails Corridor/Flowerfield Trail Corridor	3.8	2%	0
	2-D	Resort Coastal Access Parking Area	0.4	0%	0
	2-E	Long Point Overlook	0.2	0%	0
	2-F	City Hall Park Expansion	1.6	1%	0
	2-G	Point Vicente Overlook	1.0	1%	0
	3	**Public Use Golf Course and Golf Practice Facility**			
	3-A	Resort Hotel Area (Holes 1 and 6-9, Clubhouse, and Parking)	33.9	20%	0
	3-B	Upper Point Vicente Area (Holes 2-5, Public Golf Practice Facility, Maintenance Facility and Parking)	37.1	22%	0
		Subtotal - Recreation	***81.2***	***48%***	***0***
Resort Hotel Development	**4-A**	**Resort Hotel** (acres include accommodations, public areas, food and beverage areas, prefunction/function/meeting areas, spa/health center, back of house, pools and decks, landscaped grounds, and surface/underground parking facilities)	55.6	33%	
		Main Building Rooms/Bungalows (rooms/maximum keys)	–	–	400
		Resort Casitas (flexible accommodations/maximum keys)	–	–	50/150
		Resort Villas (units/maximum keys)	–	–	32
		Subtotal - Resort Hotel Development	***55.6***	***33%***	
TOTAL	**ALL**		**168.4**	**100%**	**–**

within Recreation Planning Areas 2E, 2F, and 2G (Public Parks), and 3-B (Public Golf Course and Golf practice Facility). More specifically, the Program would preserve and increase Coastal Scrub habitat.

The Program would utilize a combination of methods – the conservation of existing on-site habitat, the creation of new habitat in areas that are currently marginally developed or undeveloped yet have limited value (i.e., former agricultural areas, slopes with non-native grass species, etc.), and the enhancement of the existing degraded habitat areas to obtain improved habitat values.

Habitat Conservation/Enhancement (Planning Area 1). PA 1 contains two conservation components described as follows:

- *Bluff Face/Habitat Reserve Below Resort Hotel (PA 1-A)* - This component involves approximately 6.7 acres comprising the westerly bluffs and shoreline below the Resort Hotel. It encompasses approximately 5.3 acres of Southern Coastal Bluff Scrub along the bluff-face and approximately 1.4 acres of rocky shoreline above mean sea level. Revegetation within PA 1-A would be limited to native drought-tolerant species, as identified in the City-approved plant palette.

  A transitional area (ecotone) of planting would be established along the interface between Conservation and Resort Hotel Planning Areas. This transition area would provide for a gradual transition between native plant material and resort planting and golf course. This area would be designed/maintained for long-term sustainability.

  Project drainage and surface runoff within the public-use golf course and RHA would be directed away from the bluff habitat areas.

- *Upper Point Vicente Area Coastal Sage Scrub Habitat (PA 1-B)* - This approximately 24.9-acre component would be conserved, enhanced and created as Coastal Sage Scrub habitat. The public trails, golf course and golf practice facility were designed around this habitat, although some public walking and interpretive trails would cross through this Planning Area.[3] The Project involves the creation of new Coastal Sage Habitat within this area and provides linkage to other habitat areas in the City. Revegetation within PA 1-B would be limited to native drought-tolerant species (i.e., coastal sage scrub habitat).

[3] Where golf cart paths pass through these areas, they are not included as a part of the Conservation District acreage.

A transitional area (ecotone) of planting would be established along the interface between Conservation and Recreation Planning Areas. This transition area would provide for a gradual transition between native plant material and golf course and park plantings. This area would be designed/maintained for long-term sustainability.

Public walkways/trails, golf cart paths, and emergency access would be permitted within Planning Area 1-B, and may be combined to reduce overall grading/habitat impacts.

A total of 22.6 acres of native habitat presently exists within PA 1. All 22.6 acres of this existing habitat would be conserved and nine acres of new habitat would be created for a total of 31.6 acres of native habitat (a net increase of nine acres) in PA 1.

In addition to the native habitat conserved and restored within Conservation Planning Area 1, additional habitat would be provided within Recreational Areas on the UPVA including PA 2-E (Long Point Overlook), PA 2-F (City Hall Park Expansion), PA 2-G (Point Vicente Overlook) and PA 3-B (Public Golf Course and Golf Practice Facility). These habitat areas are located along slopes adjacent to golf course fairways, roughs, and practice areas, as well as within the public parks. A total of 2.5 acres of native habitat exist in PA's 2-E, 2-F, 2-G, and 3-B. Approximately 2.3 acres of this existing habitat would be removed, approximately 0.2 acres of this existing habitat would be conserved and approximately 8.4 acres of new habitat would be created for a total of 8.6 acres of native habitat (a net increase of 6.1 acres) in PA's 2-E, 2-F, 2-G, and 3-B.

Overall, the Project site contains a total of approximately 25.1 acres of existing native habitat. Project implementation would remove approximately 2.3 acres of this existing habitat and retain the remaining approximately 22.8 acres which would be enhanced where appropriate. Additionally, the Project proposes the creation of approximately 17.4 acres of new habitat. In summary, Project implementation would result in the preservation, enhancement and creation of a total of approximately 40.2 acres.

Recreation District

The Long Point Resort Project would provide a variety of new public recreational facilities and linkages in addition to the public-play 9-hole regulation-length golf course and golf practice facility. Approximately 11.1 miles of new public bicycle trails, equestrian trails, pedestrian trails and stairways, and coastal access ramps, are proposed. These Project improvements would complement existing and planned City facilities in the Project area, and result in the creation of a Recreational Area providing trails which "knit" together the various individual sites and which enable residents and visitors to walk from City Hall (Elevation 395') down the bluffs,

and then to the shore at the southeast end of Long Point. The existing County Fishing Access and City Hall parking lots would be directly linked with the Project.

Additionally, a total of 100 new coastal access parking spaces, equally divided between two new public parking lots would be provided within the RHA, in addition to 825 new visitor-serving parking spaces for the Resort Hotel and public-use golf course/clubhouse.

The approximately 81.2-acre Recreation District is made up of two Planning Areas including the Public Parking, Parks, Trails, Coastal Access and Shore Area (PA 2), and the Public Use Golf Course and Public Golf Practice Facility (PA 3).

Public Parking, Parks, Trails, Coastal Access, and Shore Area (Planning Area 2). PA 2 contains general recreation facilities which include approximately 10.2 acres of general public parks, parking/trails staging areas, and trails/Coastal access ways (refer to Exhibit 5.13-2, *Public Recreation Facilities*).

- *Fishing Access Parking Expansion (Planning Area 2-A)*: This component involves an approximately 1.0-acre area adjacent to the existing Point Vicente Fishing Access. This parking area expansion would provide 50 additional public parking spaces in the RHA directly accessible from Palos Verdes Drive South and would be integrated with the existing Fishing Access parking lot.[4]

- *Bluff-Top Park (Planning Area 2-B)*: This component involves approximately two acres of open space that would serve as a trails staging area and as a public turf/landscape area for short-term and longer-stay including hotel guests as well as other visitors to the area. The Bluff-Top Park would be improved in conjunction with the 50-space expansion of the County Fishing Access Parking Expansion.[5] Proposed facilities would support passive recreational uses such as ocean viewing, environmental interpretation, photography, family picnics, and informal play.

- *Palos Verdes Drive Trails Corridor and Flowerfield Trail Corridor (Planning Area 2-C)*: An approximately 3.8-acre open space and trail corridor would follow along Palos Verdes Drive South the length of the

[4] The existing Point Vicente Fishing Access is owned and operated by the County of Los Angeles. This Fishing Access is a fully-developed and heavily-used approximately 10.5-acre site containing an estimated 46 public parking spaces and a restroom structure which sit on top of the bluff directly adjoining Palos Verdes Drive South. From there, a well-defined dirt ramp provides pedestrian access down the bluff to the nearby shoreline.

[5] This park would double the size of the one-acre bluff park required as a condition of the previous Coastal Development Permit (No. AS-RPV-91-046).

RHA,[6] progressing toward the Ocean as the Flowerfield Trail to a public coastal access point, and ultimately connecting to Vanderlip Trail.

These proposed trails would include pedestrian, multi-use (including bicycle) trails, and potentially an equestrian link. Refer to the discussion below for further details regarding the proposed public trail network.

- *Resort Hotel Coastal Access Parking Area (Planning Area 2-D)*: This 50-space, approximately 0.4-acre, public parking area would be developed in the interior of the RHA, directly accessible from the Resort Entry Drive and adjacent to the golf course parking area. This parking area would be signed along Palos Verdes Drive South and within the Resort as "public coastal access."

- *Long Point Overlook (Planning Area 2-E)*: This approximately 0.2-acre component, would allow a resting place and viewing opportunities over the Long Point Resort in a native habitat setting. This area would support passive recreational uses such as ocean viewing, environmental interpretation, and photography. This overlook would serve as a resting place prior to climbing the steps and trails leading up to higher elevations.

- *City Hall Park Expansion (Planning Area 2-F)*: This approximately 1.6-acre component would involve a significant hilltop expansion of the current City Hall Facilities. This public park would be a gateway for general access from the City Hall area, down the Lighthouse Segment of the City Hall Trail to the Point Vicente Overlook. Proposed facilities would encircle the City Hall area and would support passive recreational uses such as ocean viewing, environmental interpretation, photography, and picnics. Active recreational uses and intensive facilities are not proposed at this site.

- *Point Vicente Overlook (Planning Area 2-G)*: This approximately 1.0 -acre component is a viewpoint adjacent to the Public Golf Practice Facility. This site would allow for recreation uses, picnic areas, lawn and viewing opportunities over the Point Vicente Lighthouse, Interpretive Center, and the Pacific Ocean. Additionally, this site

[6] This trail represents the Marineland Segment of the City's Conceptual Trails Plan, which is an 8-foot-wide multi-purpose trail running along the ocean side of Palos Verdes Drive South. The Marineland Segment would connect the main entry to the RHA with the expanded County Fishing Access Parking Lot. It would also connect Palos Verdes Drive South with the Flower Field Trail along the eastern edge of the RHA, and is in addition to a grade-separated, 5-foot-wide walkway on the seaward side of the trail.

would serve as a trailhead from which to access the UPVA and the City Hall.

Public parking for the Point Vicente Overlook would be provided via the golf practice facility parking area or City Hall parking area. Pedestrian access is provided by the Lighthouse segment of the City Hall Trail.

It should be noted that public trails are also proposed within conservation areas (Conservation District) and the public play golf course (PA 3-A and PA 3-B) (refer to the discussion below).

Public-Use Golf Course and Public Golf Practice Facility (Planning Area 3). PA-3 encompasses the proposed Public-Use Golf Course and the Public Golf Practice Facility (refer to Exhibit 3-5, *Golf Course Site Plan*). The proposed 9-hole, approximately 71-acre golf course and golf practice facility would be operated as a public-play, non-membership, fee-per-round golf course, which would include use by Resort Hotel guests, residents and visitors. The golf course would extend across both of the Project's geographic regions, beginning at the RHA, progressing to the UPVA, and retracing it's route to finish play north/northeast of the Resort Hotel. No netting or night lighting of the golf course or golf practice facility is proposed.[7]

- *Resort Development District (Planning Area 3-A)*: This approximately 33.9-acre area includes initial Hole 1 and concluding Holes 6 through 9, as well as golf parking, public trails, golf cart staging/maintenance facilities and clubhouse with limited food service, pro shop, restrooms, etc. Also proposed within this area are irrigation water features for course design, landscape, and maintenance of on-site water quality. PA 3-A is connected to PA 3-B via a golf cart undercrossing (tunnel) of Palos Verdes Drive South.

  A designated area within the clubhouse cart storage facility would be used to store mowers and minor landscape maintenance tools/ equipment.

[7] It should be noted that night lighting is proposed at the trail and patio areas immediately surrounding the clubhouse and public parking in the RHA.

FAIRWAY LAYOUT AND SCORECARD

GOLF HOLE	PAR	YARDAGE
1	4	412
2	4	323
3	5	501
4	4	328
5	3	203
6	4	443
7	3	163
8	4	319
9	4	364
OUT:	35	3,056 Yds.
COURSE TOTAL:		3,056 Yds.

LEGEND

- GOLF FAIRWAY/TEES/GREENS
- GOLF ROUGH/TRANSITION/ECOTONE

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LONG POINT RESORT EIR

Golf Course Site Plan

Exhibit 3-5

- *Upper Point Vicente Area (Planning Area 3-B)*: This approximately 37.1-acre area includes Holes 2 through 5 and the Public Golf Practice Facility. Also proposed are the maintenance facilities, employee parking, public trails and public parks. Restrooms and a refreshment area would be developed to serve both those playing golf and those practicing at the golf practice facility.

Golf course areas within PA 3-B would wrap around areas of coastal sage scrub vegetation (i.e., Conservation PA 1-B) that would be retained, protected, and enhanced for conservation purposes.

The golf course fairways and golf cart routing, tees, and habitat conservation areas on the UPVA are proposed to be developed by sealing and filling over (rather than excavating and removing) the remnants of the Nike missile installation that presently exists south of the City Hall.

The Public Golf Practice Facility includes a public golf practice and learning facility offering 25 to 30 natural turf tees and including a practice range, sand shot and chipping area, and putting green, each designed and constructed to the same standards as the golf fairways and greens. Public access to this area would be provided off of Palos Verdes Drive South via the unnamed roadway between the proposed facility and St. Paul's Lutheran Church. The proposed facility would include one building with a small pro-shop, teaching studio, restrooms, and refreshment area that would be developed in conjunction with (and also serve) the 9-hole golf course.

Approximately 40 parking spaces for the golf practice facility are proposed adjacent to the unnamed roadway. Proposed hours of operation for the golf practice facility are daily, dawn to dusk.

To ensure privacy, contain balls and provide additional sound attenuation, a broad, continuous berm is proposed along the northern side of the practice range (to form the concave form of the landing area). The berm would not exceed the height of the bottom floor of the adjacent Villa Capri Townhomes as it ascends the slope.

A complete maintenance facility would be located within PA 3-B with access from Palos Verdes Drive South via the alignment of an existing unpaved dirt road. This facility would include the following:

- Maintenance offices;
- Shop/staging/fertilizer building;
- 20 employee parking spaces;
- Trash enclosures;
- Mixing bins;
- Sand/gravel/clippings storage bins;

- Washdown area;
- Fueling bay; and
- Nursery/growing areas.

A Runoff Management/Water Quality Management Plan would be incorporated to monitor and manage the quality of runoff. This Plan would address issues including the management of herbicides, pesticides, fertilizers used on the golf course, the routing of runoff within and through the golf course, and design details for energy dissipaters and other improvements at storm drainage outlets (refer to the detailed discussion below).

Maintenance facilities for the golf course may be dispersed between the UPVA and the RHA.

Proposed hours of operation for the golf course are daily, dawn to dusk.

Resort Development District

The Resort Development District is made up of Planning Area 4 (Resort Hotel) and encompasses approximately 55.6 acres of the 103.5-acre RHA (refer to Exhibit 3-6, *Resort Hotel Site Plan*). This area involves development of the Long Point Resort Hotel ("Resort Hotel") including a full-service Resort Hotel and related public facilities, and visitor-serving resort villas as described below:

- 400 guest rooms (400 keys) in the main building and bungalows;

- 50 resort casita units distributed in two villages: East Casita Village and West Casita Village. These casitas would be multiple-keyed (at up to 3 keys per casita), for a total of up to 150 overnight accommodations;

- 32 resort villas situated along Palos Verdes Drive South and designed architecturally similar to the Resort Hotel buildings. These individually-owned resort villas are proposed to be restricted such that visitor-serving accommodations would be provided a minimum of 75 percent of the year and a maximum of 30 days consecutively. Recreational facilities and services offered to guests of the Resort Hotel would be offered to residents of the Villas;

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LONG POINT RESORT EIR

Resort Hotel Site Plan

Exhibit 3-6

- Resort food and beverage facilities would include a maximum of four restaurants/bars (400 seats), conferee dining (200 seats), lounges/beverage bars (150 seats) and a pool bar (2,000 square feet). Additionally, the existing Lookout Bar structure would be renovated;

- Banquet/meeting rooms and retail facilities would include approximately 68,000 square feet of ballroom, banquet, meeting, community, prefunction, foyer, flow, convenience services and retail sales space. This space would be made available for conferences, social occasions, and community and public events;

- An approximately 25,000-square-foot full-service health spa/fitness center;

- A maximum of seven (7) swimming pools, spas and/or jacuzzi spaced throughout the Resort (not including in-room amenities);

- A maximum of four (4) tennis courts;

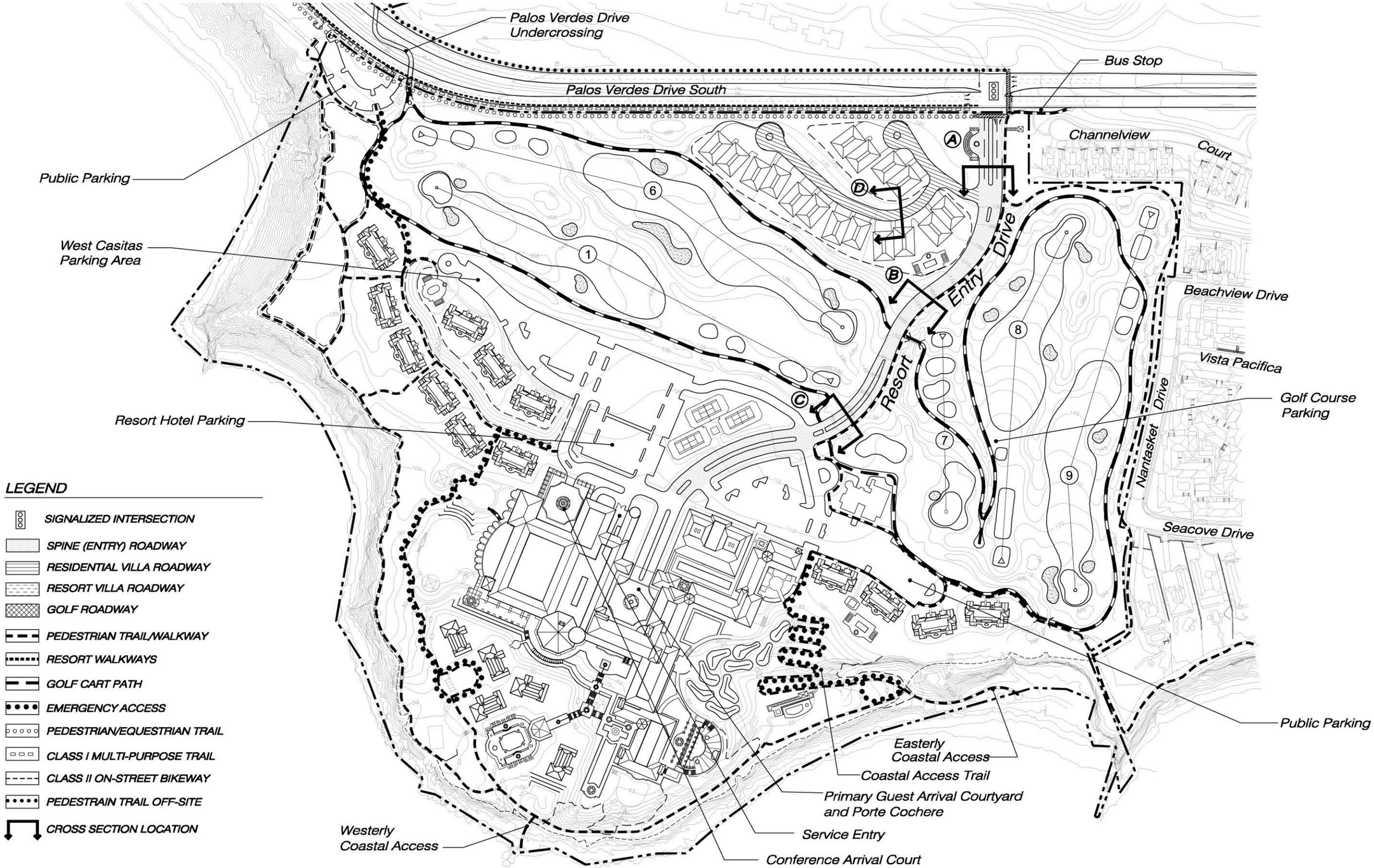
- Parking to serve the Resort Hotel would be provided by both surface lots distributed throughout the Planning Area and a multi-level parking structure underneath the Hotel;

- Public areas and amenities within this area would be linked by a system of public walkways, jogging paths, and bike trails. A range of passive recreation areas such as lawns, scenic overlooks, and seating areas would be provided throughout the Area as well as within the proposed Golf Course.

Circulation Improvements

The vehicular/pedestrian circulation plan for the proposed Project, including access points, is illustrated in Exhibit 3-7, *Circulation Plan*. Proposed improvements are described as follows:

- Access to the Resort Hotel is proposed via Palos Verdes Drive South at the existing access to the former Marineland project, opposite Crestmont Lane. A 4-lane divided entry is proposed to allow right and left turns onto Palos Verdes Drive South and allow right and left turns into the Resort Hotel.



LEGEND

- SIGNALIZED INTERSECTION
- SPINE (ENTRY) ROADWAY
- RESIDENTIAL VILLA ROADWAY
- RESORT VILLA ROADWAY
- GOLF ROADWAY
- PEDESTRIAN TRAIL/WALKWAY
- RESORT WALKWAYS
- GOLF CART PATH
- EMERGENCY ACCESS
- PEDESTRIAN/EQUESTRIAN TRAIL
- CLASS I MULTI-PURPOSE TRAIL
- CLASS II ON-STREET BIKEWAY
- PEDESTRAIN TRAIL OFF-SITE
- CROSS SECTION LOCATION

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LONG POINT RESORT EIR

Circulation Plan

Exhibit 3-7

- The proposed Resort Entry Drive consists of two 21-foot-wide lanes. Portions of the road (i.e., entry, arrival at intersections and entry courtyard arrival) are divided by a minimum 10-foot variable-width landscape median. A minimum 10-foot-wide landscape parkway lines each side of the drive, with a pedestrian walk on the eastern side only.

- Access to the golf course and clubhouse is proposed via the Resort Entry Drive. The entrance to the clubhouse parking lot is situated along the east side of the Resort Entry Drive en-route to the Resort Hotel main guest entry court.

- Access to the golf practice facility is proposed off of Palos Verdes Drive West adjacent to an existing emergency access roadway to the Villa Capri townhouse development.

- Access to the golf maintenance facility is proposed from Palos Verdes Drive South via the alignment of an existing unpaved dirt road.

Runoff Management/Water Quality Management Plan

Drainage Concept. A drainage plan was prepared by the Applicant for the management of stormwater on the Project site. The Project site would be required to manage the waters from several offsite areas in addition to its own, including commercial and residential developments that currently discharge to the site.

In order to effectively manage the stormwater from offsite, as well as onsite, a storm water collection and conveyance system is proposed. The system would manage a majority of the project site's runoff and would discharge to the ocean through two main outlets. The outlets would be located below the bluffs to reduce the amount of erosion currently taking place. The areas of the proposed Project site not served by this system, primarily most of UPVA, would continue to drain through natural drainages and through existing facilities.

In order to address water quality issues, the Project proposes to employ a Water Quality Management Program consisting of a series of Best Management Practices (BMPs) that would provide source control for pollutants as well as treatment of the stormwater.

Water Quality Evaluation. The effectiveness of the Project's Water Quality Management Program (i.e., BMPs) and the Project effects on stormwater quality was evaluated in two parts. The first was the compliance, or the ability of the project to comply, with the Standard Urban Stormwater Mitigation Plan (SUSMP) guidelines. The second was the predicted water quality of stormwater being discharged from the Project site, taking into account certain BMPs.

Water quality modeling was conducted for two post-development outlets and one pre-development outlet, for comparison purposes. The results showed that there would be a substantial amount of treatment of onsite and offsite runoff and that post development pollutant concentrations would be less than pre-development concentrations.

Off-Site Improvements

As previously noted, the proposed Project involves improvements to the City-owned property situated off-site, between the UPVA and Hawthorne Boulevard. Proposed improvements include reconfiguration of the Rancho Palos Verdes City Hall parking area and relocation of the City's existing Corporate Yard (refer to Exhibit 3-8, *Concept Plan for City Hall Facilities*).

Improvements proposed to Rancho Palos Verdes City Hall parking area involve relocation of the approximately 92 parking spaces presently situated west of the City Hall buildings to an expanded and reconfigured parking area which presently exists east of the City Hall buildings. This easterly parking area would be reconfigured and expanded to include a total of 93 parking spaces.

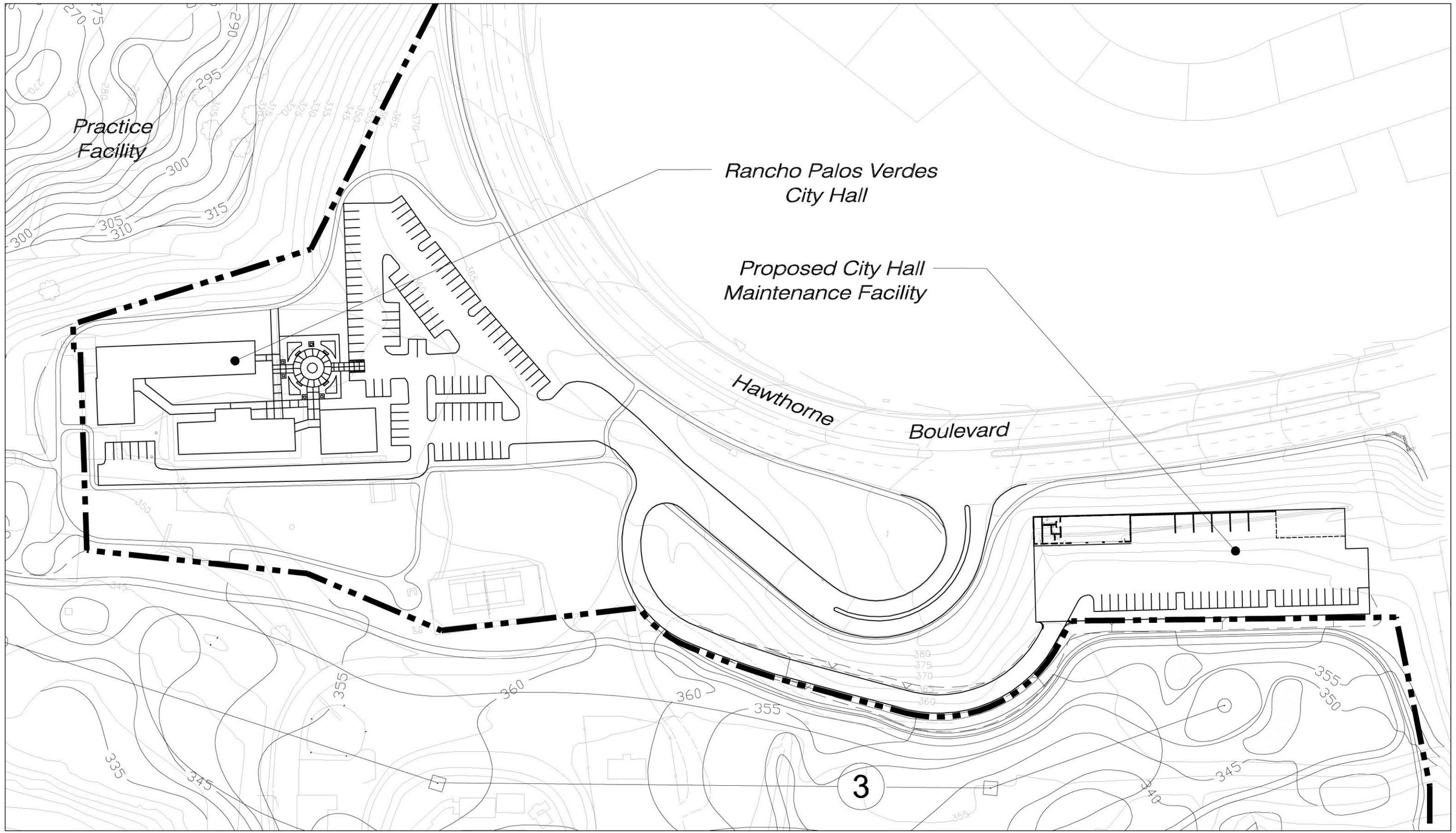
Also proposed is relocation of the City's existing Corporate Yard (including approximately ten parking spaces) to an approximately 1.0-acre site situated between the existing Civic Center entryway and the Salvation Army's tennis courts. As illustrated on Exhibit 3-9, *Concept Plan for City Maintenance Facility*, the Facility is proposed to include an approximately 3,150-square foot equipment storage building (with office and storage space), an outdoor bulk storage space, and a parking area containing 30 employee parking spaces (for use by City employees). The proposed equipment storage building would be recessed into the hillside and a retaining wall would be provided along the northern site boundary to screen visibility of the facility from Hawthorne Boulevard.

3.4 PROJECT OBJECTIVES

The Project objectives for the Long Point Resort Project have been provided by the Project applicant and are as follows:

- Establish a successful destination coastal resort that provides a mix of hotel and resort accommodations, recreational amenities, health facilities, restaurants, meeting rooms, and other related visitor-serving uses on the Long Point (former Marineland) site as the core of a successful destination coastal resort.

Exhibit 3-8, Concept Plan for City Hall Facilities



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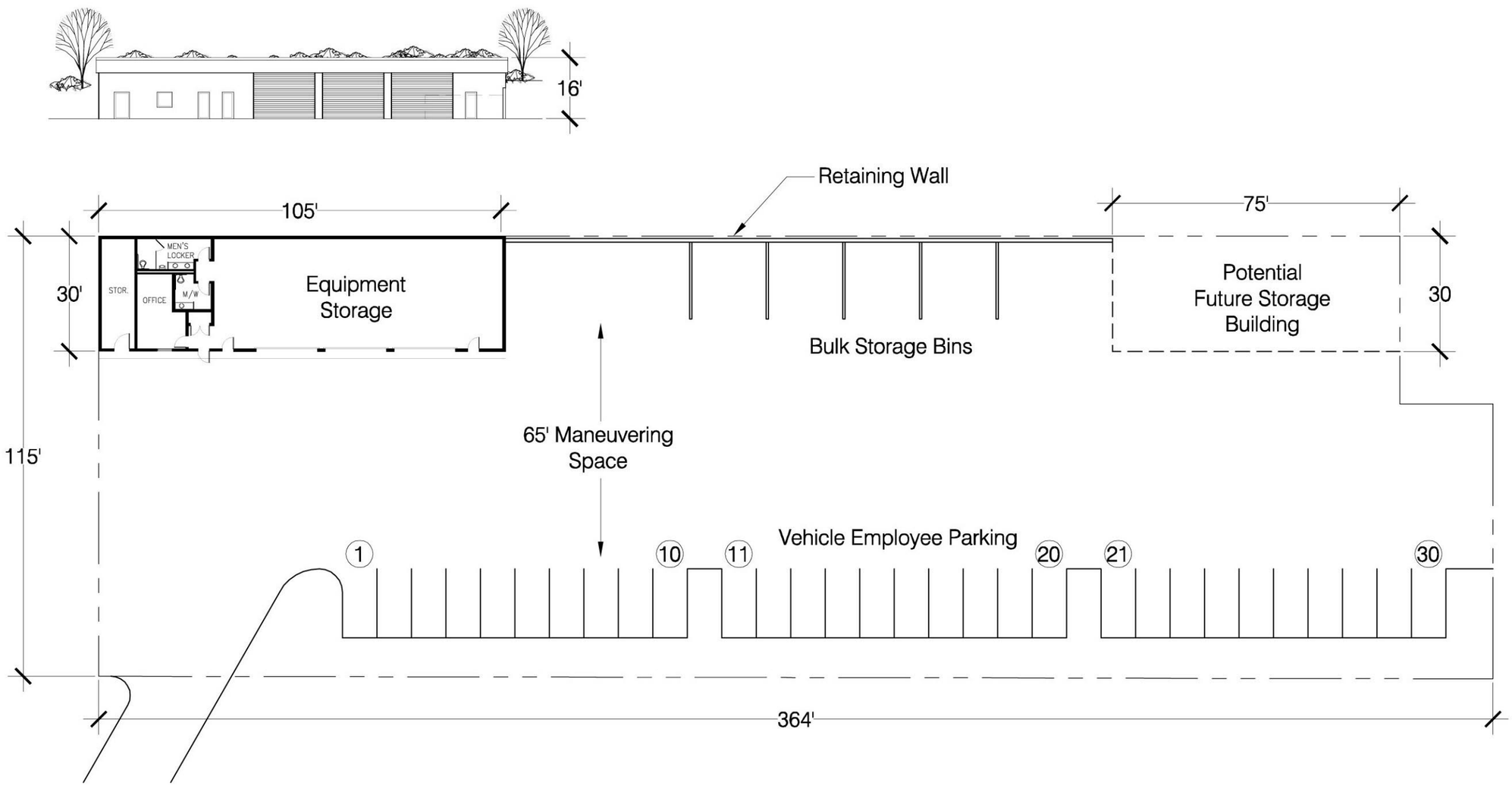
LONG POINT RESORT EIR

Concept Plan for City Hall Facilities

Exhibit 3-8



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LONG POINT RESORT EIR

Concept Plan for City Maintenance Facilities

Exhibit 3-9

- Provide a variety of hotel/resort accommodations that serves a wide range of coastal visitors and their needs, such as length of stay, size of units and associated conference and recreational facilities.

- Provide a high-quality, on-site golf experience as an integral part of the destination resort, and ensure that the golf course and related practice and teaching facilities are open to the general public.

- Provide for a variety of public open space, including natural and active open space areas, trails and general public recreation areas within the Project.

- Provide for expanded public coastal access, including:

  - 100 off-street parking spaces for the general public, in addition to those provided to resort visitors and guests;

  - Vertical access from Palos Verdes Drive South, through the resort, safely and conveniently down to the shoreline in two locations; and

  - Continuous horizontal access comprised of a bluff-top trail and scenic overlooks along the full length of coastal bluff.

- Design a destination coastal resort facility that is architecturally and visually compatible with the surrounding landscape.

- Provide for implementation of the City's Master Plan of Trails in all areas adjacent to the resort, including connections to existing trails, the City's Point Vicente Interpretive Center, and a safe crossing of Palos Verdes Drive South to connect the RHA with the UPVA and the City Hall facilities.

- Protect sensitive coastal bluffs on the Long Point Site, and limit the degradation of marine resources on or adjacent to the Project, that may occur with increased public access and use of the area.

- Provide additional public trails and recreational facilities on the publicly-owned UPVA, in conjunction with a reevaluation of the Program of Utilization for the former military site, which currently calls for organized sports fields and game courts as the primary recreational development.

- Provide for a project which, in its entirety, is financially feasible for the private sector to develop, operate, and maintain on a sustainable basis and for the benefit of the City of Rancho Palos Verdes, its residents and the surrounding community.

- Protect the ecological values of the off-shore marine areas through creation of a conservation area adjacent to the Fisherman's Access Area that would include protection of native vegetation, including a transitional planting area (ecotone) between the bluff edge and the adjacent public park and provisions to direct drainage and surface runoff away from the bluff.

- Provide for the long-term protection, enhancement and increase of coastal sage scrub and native vegetation that would be consistent with the City's proposed NCCP Program and state and federal requirements.

- Improve water quality through construction and implementation of a Runoff Management/Water Quality Management Plan.

- Provide for the redevelopment of the former Marineland site with visitor-serving uses that would attract new visitors to the area and provide economic benefits to the City.

3.5 PHASING

It is anticipated that improvements to the Long Point Resort would be completed within an approximately 24-month buildout period. The conceptual phasing schedule for the Resort is detailed in Exhibit 3-10, *Conceptual Phasing Schedule*. The schedule illustrates five (5) linked construction operations over the 24 months, following City and other public agency reviews and approvals. The precise timing of these operations would be determined by the Developer and the City.

As indicated, Phase 1 entails site preparation, grading, and construction of the Resort Hotel improvements and infrastructure by the Master Developer. Subsequent phases depend upon the Resort Hotel/golf course builder(s) and operator(s), and their preparation and City approval of precise civil engineering, architectural, and landscape architectural construction documents.

CONSTRUCTION PHASE/COMPONENT	2000				2001				2002				2003				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
A. DRAFT CUP's/CDP/TENTATIVE PARCEL MAP																	
B. DRAFT EIR																	
C. EIR CERTIFICATION/CITY REVIEW AND APPROVAL OF CUP's/CDP/TPM																	
D. PREPARE ARCHITECTURAL/ENGINEERING PLANS																	
E. PROCESS ARCHITECTURAL/ENGINEERING PLANS/APPROVAL BY CITY																	
F. CITY ISSUES GRADING PERMIT									Planning/Entitlement Phase ◆ Resort Construction Phase								
1 SITE PREPARATION AND INFRASTRUCTURE																	
1.1 Landscape Recovery (Boxing of Trees)																	
1.2 Process Approval for Demolition/Recycle of Marineland Structures/Materials																	
1.3 Demolition of Marineland Structures/Recycle Construction Materials																	
1.4 Grading for All Project Areas																	
1.5 Infrastructure Improvements for All Project Areas																	
2 HOTEL IMPROVEMENTS																	
2.1 Main Building/Bungalow Improvements																	
2.2 Casita Improvements (1)																	
2.3 Resort Villa Improvements (1)																	
2.4 Resort Hotel Grand Opening																	◆
3 GOLF IMPROVEMENTS																	
3.1 Resort Hotel Area Golf Course Facilities (PA 3-A)																	
3.2 Clubhouse and Parking Area (PA 3-A)																	
3.3 Upper Point Vicente Area Golf Course Facilities (PA 3-B)																	
3.4 Upper Point Vicente Area Golf Practice Facilities (PA 3-B)																	
3.5 Maintenance and Pro Shop Buildings (PA 3-B)																	
4 PUBLIC PARKING, PARKS, AND TRAILS IMPROVEMENTS																	
4.1 Fishing Access Parking Expansion (PA 2-A)																	
4.2 Bluff-top Park (PA 2-B)																	
4.3 Palos Verdes Drive Trails Corridor/Flowerfield Trail Corridor (PA 2-C)																	
4.4 Resort Hotel Coastal Access Parking Area (PA 2-D)																	
4.5 Long Point Overlook (PA 2-E)																	
4.6 City Hall Park Expansion (PA 2-F)																	
4.7 Point Vicente Overlook (PA 2-G)																	
5 HABITAT RESTORATION/ENHANCEMENT/CREATION																	
5.1 Bluff/Beach Habitat Reserve (PA 1-A)																	
5.2 Upper Point Vicente Coastal Sage Scrub Habitat (PA 1-B)																	
(1) Casita and Resort Villa Improvements may be phased.																	

SOURCE: FORMA

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LONG POINT RESORT EIR

Conceptual Phasing Schedule

Exhibit 3-10

The schedule would reflect market conditions, resort tourism, the real estate market, financial institution lending policies, City of Rancho Palos Verdes schedules, and other factors and public agency actions potentially including conditions of approval, development agreement, and/or other agreement(s) between the Master Developer and the City. Phasing, therefore, is subject to change over time to respond to these various factors, and individual phases may overlap one another. Provided below is a more detailed discussion of what is entailed in each of the phases.

SITE PREPARATION AND INFRASTRUCTURE

Landscape Recovery

This initial operation is projected to begin in the last quarter of 2001 and involves the excavation, boxing, and preservation (for replanting) of arborist- identified specimen trees and shrubs existing within the RHA, primarily from the Marineland era.

Demolish Structures/Recycle Construction Materials

During the second sub-phase, the RHA would be cleared of buildings, paving, and other construction debris associated with Marineland and subsequent uses of the property. Some military-related facilities, agricultural areas, and other remnant structures on the UPVA would also be removed during this phase to provide for grading of the golf course and related facilities, and for the improvement of public parks and trails.

This work would be accomplished in accordance with City policies and the certified EIR and would also involve the abandonment/removal of obsolete subsurface/ surface infrastructure and utility lines. The recycling of asphalt, concrete, and other paving construction materials on the site would be used, where practicable, to reduce costs and the amount of demolition material to be exported from the Project area, thereby reducing construction-related air emissions and haul truck traffic to and from the site.

Grade Project Areas

The Project area would be graded consistent with the Grading Plans for the two geographic areas within the Project and the Tentative Parcel Map or Tentative Tract Map for the RHA. This would involve balancing cut and fill on-site.

According to the Grading Plan (October 2, 2000) for the RHA, a total of 432,000 cubic yards (CY) of cut and 410,000 CY of fill are proposed. According to the Grading Plan (October 2, 2000) for the UPVA, a total of 139,080 cubic yards (CY) of cut and 131,940 CY of fill are proposed. Based on these estimates, and in consideration for the five percent shrinkage factor, grading would be balanced on-site.

Grading of both documented and undocumented fills within the interior of the RHA and UPVA is anticipated. To ensure a firm and stable foundation for Resort development, the details of grading operations would be based upon detailed engineering studies conducted by a team of City-approved and State-licensed geotechnical consultants.

Finish grading for the site would be consistent with the Grading Plans and would incorporate detailed grading design for roadways and guest parking areas, building pads, infrastructure, the golf course and golf practice facility, and public parking and park areas as approved by the City of Rancho Palos Verdes.

Infrastructure Improvements

The backbone infrastructure for all resort development would be installed. This would include improvements to the roadway and storm drainage system, sewer and water systems, and other underground facilities and utilities as described. It would also include connections to existing on- and off-site infrastructure. As the backbone infrastructure is installed, the Palos Verdes Drive South entry and internal roadways, parkways, trails, walkways, and similar master site improvements would be constructed, as practicable.

Project-level infrastructure to serve individual building and facilities would be provided in conjunction with the development of individual Project areas.

Master and interim landscape associated with common areas, easements, entries, and remediation/stabilization would, as appropriate, occur in conjunction with Master Developer finish grading and infrastructure improvements, particularly where necessary for erosion control and other geotechnical reasons.

HOTEL IMPROVEMENTS

The Resort Hotel development includes the main building, bungalow, casita, and resort villa guest units, as well as the associated restaurants, the Lookout Bar, meeting rooms, spa facilities, parking areas, arrival courts, pools, decks, and grounds.

Main Building and Bungalows

Construction of the Main Hotel Building is the most lengthy and complex assignment and is estimated to require 21 to 24 months, beginning in the second quarter of 2002, and culminating in a grand opening in the first quarter of 2004. All of the bungalows would be constructed within this time frame.

Casitas

Construction of the casita accommodations may be developed in multiple phases depending upon market demand.

Resort Villas

Construction of the resort villas may be separate from the other accommodations of the Resort Hotel, and may be developed in multiple phases. The Master Developer proposes that the completion of the resort villas cannot precede completion of the main building of the Resort Hotel.

GOLF COURSE AND GOLF PRACTICE FACILITY IMPROVEMENTS

It is anticipated that improvement of golf course PA 3-A in the RHA would begin the third quarter of 2002 with an estimated completion in 12 months (concurrent with Hotel grand opening). Construction would include the clubhouse, public parking areas, and the land necessary for construction staging areas associated with the main building, bungalows, casitas, and resort villas.

Improvement of the golf course and golf practice facility in PA 3-B within the UPVA is estimated to require approximately 14 months. This phase reflects the topography and the need to connect grading and improvements with the existing surrounding edge conditions (i.e., the City Hall and its adjacent maintenance and park spaces). Additionally, this phase reflects the need to organize the proposed golf improvements in consideration of the other proposed Project features (i.e., the Coastal Sage Scrub habitat protection, restoration and creation, general public parks, trails and stairways, and the undercrossing of Palos Verdes Drive South).

PUBLIC PARKING, PARKS, AND TRAIL IMPROVEMENTS

Improvement of the public parks and parking areas, as well as the public coastal access and trail system would occur such that completion corresponds with or precedes the opening of the Resort Hotel and golf course.

HABITAT RESTORATION/ENHANCEMENT/CREATION

The phasing of habitat restoration, enhancement, and creation would reflect City approvals and permit requirements. The Master Developer proposes to implement this habitat restoration, enhancement, and creation as soon as practicable, with completion of habitat improvements in conjunction with completion of adjacent resort and recreation areas of the Project.

Bluff/Shore Habitat Reserve (PA 1-A)

Planning Area 1-A, which contains Coastal Bluff Scrub, would be deed-restricted in conjunction with the City's issuance of a grading permit for the RHA.

Upper Point Vicente Area Coastal Sage Scrub Habitat (PA 1-B)

Habitat restoration, enhancement, and creation (as well as related nature trails, scenic viewpoints, and all other public improvements) within PA 1-B would be implemented in conjunction with the development of the golf course, golf practice facility, and public park areas.

3.6 AGREEMENTS, PERMITS AND APPROVALS

Refer to Table 3-3, *Discretionary Actions*.

TABLE 3-3
DISCRETIONARY ACTIONS

Discretionary Action	Planning Commission	City Council	Other	Notes
General Plan Amendment (GPA No. 28)	X	X		
Conditional Use Permit (CUP No. 215 & CUP No. 216)	X	X	X[1]	1. The Coastal Commission may exercise its review authority over CUP No. 215 as it falls within the City's Coastal Zone.
Tentative Parcel Map (TPM No. 26073)	X	X	X[2]	2. The Coastal Commission may exercise its review authority over TPM No. 26073 as it falls within the City's Coastal Zone.
Grading Permit (GRP No. 2229 & GRP No. 2230)	X	X	X[3]	3. The Coastal Commission may exercise its review authority over GRP No. 2229 as it falls within the City's Coastal Zone. National Park Service approval is required.
Coastal Development Permit (CDP No. 166)	X	X	X[4]	4. The Coastal Commission may exercise its review authority over CDP No. 166 as it falls within the City's Coastal Zone.
Program of Utilization			X[5]	5. National Park Service approval is required.
EIR Certification		X		
Development Agreement[6]	X	X		6. If undertaken after a decision is made on the Project.

4.0 BASIS FOR CUMULATIVE ANALYSIS

Section 15355 of the State California Environmental Quality Act (CEQA) Guidelines, as amended, provides the following definition of cumulative impacts: "Cumulative impacts refers to two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts." Pursuant to Section 15130(a) of the Guidelines, "An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c)." The Initial Study Checklist provided as part of Appendix 15.1 indicates that the proposed Project may yield potentially significant cumulative effects. As a result, Section 5.0 of this Environmental Impact Report (EIR) provides a cumulative impact assessment for each applicable environmental issue, and does so to a degree which reflects each impact's severity and likelihood of occurrence.

As indicated above, a cumulative impact involves two or more individual effects. Such effects can be internal to, and confined solely to, a proposed project itself, or also be attributable to other external projects, producing related or cumulative effects. Per State CEQA Guidelines Section 15130, the discussion shall be guided by the standards of practicality and reasonableness. The following elements are necessary in an adequate discussion of cumulative impacts:

1. Either:

   a. A list of relevant past, present and probable future projects producing related or cumulative impacts, if necessary, including those projects outside the control of the Agency, or

   b. A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact;

2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available;

3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable feasible options for mitigation or avoiding the Project's contribution to any significant cumulative effects; and

4. With some projects, the feasible mitigation for cumulative impacts may involve the adoption of ordinance or regulations rather than the imposition of conditions on a project-by-project basis.

Table 4-1, *Approved and Pending Projects in Rancho Palos Verdes,* identifies related projects and other possible development in the area determined as having the potential to interact with the proposed Project to the extent that a significant cumulative effect may occur. The locations of these projects are also illustrated on Exhibit 4-1, *Cumulative Projects Location Map.* Information integral to the identification process was obtained from the City of Rancho Palos Verdes and a review of several secondary data sources. The resulting related projects include primarily only those determined to be at least indirectly capable of interacting with the Long Point Project. Table 4-1 outlines the related projects according to their location, description, and status.

It should be noted that quantification of cumulative impacts is difficult and often times requires speculative estimates of impacts including, but not limited to, the following: the geographic diversity of impacts in the planning area (impacts of future development may affect different areas); variations in time of impacts (many of the Project's future impacts, especially the short-term construction related impacts, would occur at different times, and would be reduced or removed before other short-term impacts occurred); complete data is not available for all future development; and data for future development may change during subsequent approvals. However, every attempt has been made to provide a qualitative judgement regarding the combined effects of, and relationship between, the different land uses.

TABLE 4-1
APPROVED AND PENDING PROJECTS IN RANCHO PALOS VERDES

Key Map	Project Name	Description	Location	Status
1	Ocean Trails	75 SFR lots/4 afford. 18-hole golf course, average 12k - 25k sq. ft. lots, and max 35,470 S.F. clubhouse, public parks, public trails, habitat areas	Palos Verdes Drive South/West of Shoreline Park	Under Construction
2	Subregion 1 CPH Residential Tract	79 SFR lots, Trails, parks, natural habitat areas, 20k-30k sq. ft. lots	Palos Verdes Drive West/Hawthorne	Under Construction
3	Seabreeze	63 SFR lots, average 16k-25k square foot lots, public trails, habitat areas	Crest/Highridge	Complete, public trails open
4	Point View	91 SFR lots (Please note that this number is based on the developer's concept plan, and is used for environmental impact analysis only. If the Landslide Moratorium Exclusion is granted, only then will the actual development applications be accepted by the City for review and processing.)	Palos Verdes Drive South	Incomplete Application
5	Dryfarming on Upper Filiorum	Non-irrigated farming of garbanzo beans, barley, etc. on two 8-acre plots	Both sides of Vanderlip canyon below Ocean Terrace Drive and Santa Catalina Drive	Incomplete Application
6	Peninsula Pointe	43 lots	Palos Verdes Drive South/Albero Court	Construction Complete
7	Golden Cove Center Rehabilitation	Commercial center rehabilitation; 12,600 S.F. of new commercial	Palos Verdes Drive West/Hawthorne Blvd	Approved
8	Vesting Tentative Tract Map 52666	13 lot subdivision	Palos Verdes Drive West/Alida Place	Environmental Assessment Pending
9	Marriot Lifecare Facility	122 Unit (126 bed) Assisted living/ Alzheimer facility	Crestridge/Crenshaw	Approved

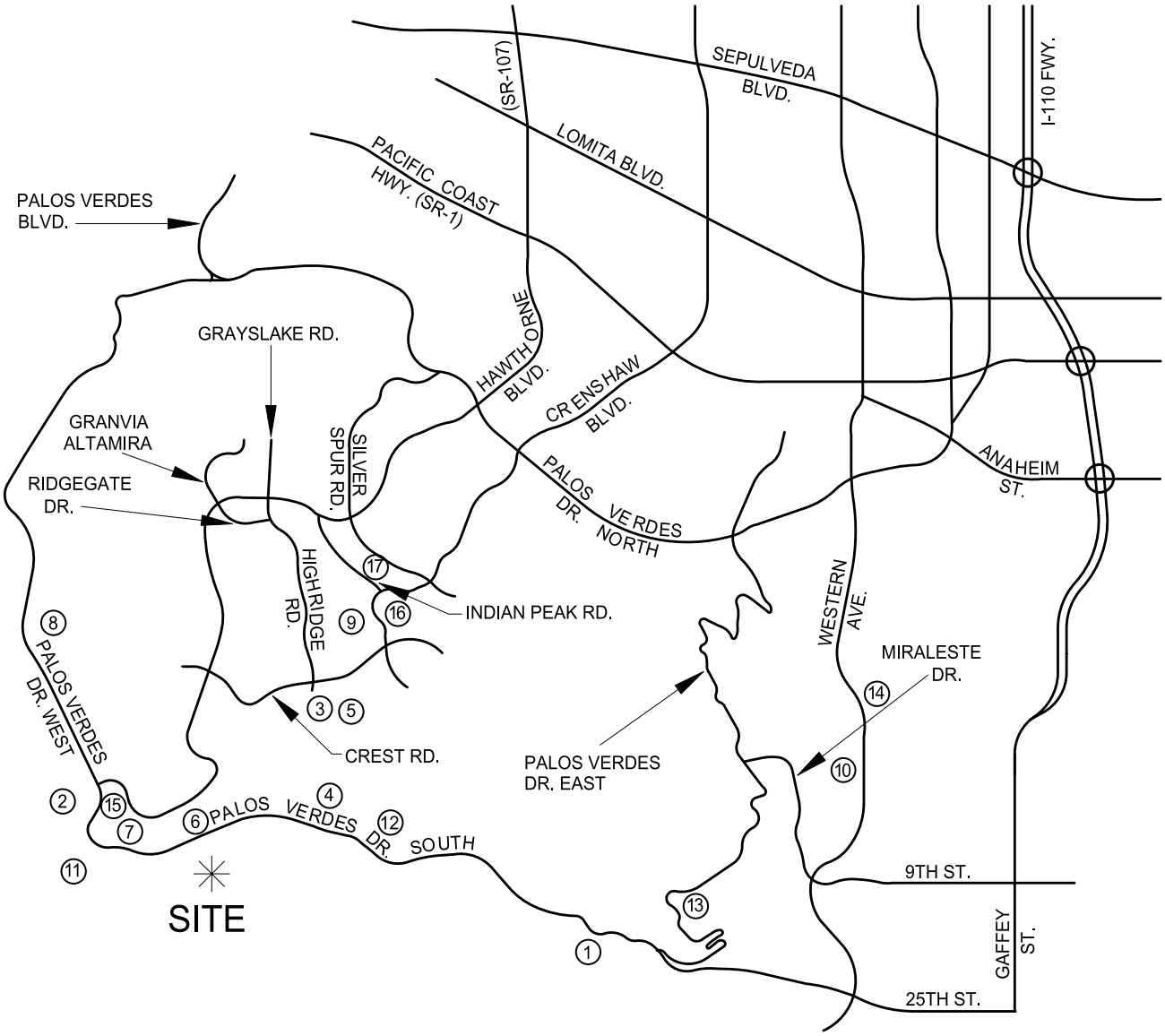
TABLE 4-1

Basis for Cumulative Analysis

APPROVED AND PENDING PROJECTS IN RANCHO PALOS VERDES (CONTINUED)

Key Map	Project Name	Description	Location	Status
10	Rich Development Commercial	6,240 S.F. Commercial Center	Western Avenue/Summerland	Completed
11	Point Vicente Interpretive Center	7,437 S.F. expansion	Palos Verdes Drive South	On hold
12	Wayfarer's Chapel Visitor's Center	2,065 S.F. 11 story building	5755 Palos Verdes Drive South	Approved
13	Marymount College expansion	Request to revise CUP to allow a 152,550 S.F. expansion with the demolition of 12,600 S.F. of existing floor area. Also, 110,000 cubic yards of grading is requested	30800 Palos Verdes Drive East	Incomplete Application
14	Western Avenue Mini Storage	70,000 S.F. self storage facility	28798 Western Avenue	Complete Application
15	Montessori School	14,990 S.F. school housing 240 students; 19,400 cubic yards of grading proposed	31270 Palos Verdes Drive South	Approved
16	Senior Housing Project	76 apartment units for seniors at low income rental rate; 5,000 S.F. senior center, parking	Crenshaw/Crestridge	Complete Application
17	Crestridge Villas Senior Housing Project	130-unit senior housing condos	5600 block of Crestridge, west of Crenshaw	Incomplete Application

Source: City of Rancho Palos Verdes, September 2000.



LEGEND:

(1) = OTHER DEVELOPMENT LOCATION

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LONG POINT RESORT EIR

Cumulative Projects Location Map

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Exhibit 4-1

5.0 DESCRIPTION OF ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

5.1 AESTHETICS/LIGHT AND GLARE

Visual resources information for this Section was compiled from site photographs and site surveys conducted by RBF Consulting in August 2000 and aerial photographs dated February 1999. This analysis is based upon reference data from the Rancho Palos Verdes General Plan and Coastal Specific Plan. Additionally, it should be noted that the Visual Simulations submitted by the Applicant and included in this analysis underwent peer review by RBF Consulting to confirm accuracy in methodology, technique and outcome. These Visual Simulations underwent further review for accuracy of outcome by the City of Rancho Palos Verdes. The purpose of this Section is to describe the existing aesthetic environment on-site and in the site vicinity and analyze potential Project impacts to the aesthetic character of the site. Consideration of public scenic vistas and views, impacts to scenic resources and the introduction of new sources of light and glare are also included in this Section. Mitigation measures are recommended to reduce the significance of impacts.

EXISTING CONDITIONS

VISUAL SETTING/CHARACTER

The Project site is composed of two separate areas: the bluff top of the Long Point Peninsula formerly developed with the Marineland attraction, and the Upper Point Vicente property inland of Palos Verdes Drive South and West.

Resort Hotel Area

The seaward portion of the Project area, the Resort Hotel Area (RHA), is located immediately south of Palos Verdes Drive South and rests above the bluffs overlooking the Pacific Ocean.[1] Views across the RHA are predominantly of a developed area known as the former Marineland Aquatic Park (refer to Photo 1 in Exhibit 5.1-1A, *Views of RHA*). This developed area is comprised of several dilapidated vacant structures, vast asphalted parking areas with weedy vegetation emerging through broken portions, and numerous degraded asphalt roads spanning throughout. Photo 2 in Exhibit 5.1-1A demonstrates the condition of these structures, numerous ungroomed trees, and what appear to be unhealthy mature

[1] For purposes of this analysis, Palos Verdes Drive is referred to as “Palos Verdes Drive South” south of Hawthorne Boulevard and “Palos Verdes Drive West” north of Hawthorne Boulevard.

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Views of Resort Hotel Area

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Exhibit 5.1-1A

palm trees. Facilities which remain in current use on the RHA include the Catalina Room, a banquet facility, and an administration office. Also located on the RHA are vacant lands previously graded in association with the historic agricultural use of the property (refer to Photo 1 in Exhibit 5.1-1A and Photo 1 in Exhibit 5.1-1B, *Views of RHA*. Undeveloped portions of the RHA are dominated by ornamental non-native and ruderal vegetation with a native scrub plant community overlying the steep bluffs. Vacant land in the southeast portion of the RHA, is depicted by undulating topography. Debris piles comprised of lumber, concrete, and lawn clippings are located in the easternmost portion of the Project area, adjacent to Nantasket Drive.

A residential area comprised of a three-story Mediterranean style apartment complex (The Villas) with terra cotta tile roofing, balconies, two lane cul-de-sac roads and mature palm trees is to the east surrounded by condominiums and dense ornamental vegetation (refer to Photo 2 in Exhibit 5.1-1B. Situated north of The Villas, along Channel View Court and Beachview Drive, are one-story single-family homes with a similar Mediterranean style. West of the RHA is a parking lot, known as the Point Vicente Fishing Access, resting above the steep bluffs (refer to Photo 3 in Exhibit 5.1-1B. The area surrounding the Fishing Access is dominated by overgrown ornamental and ruderal vegetation.

Upper Point Vicente Area

The inland portion of the Project site referred to as the Upper Point Vicente Area (UPVA) is located on a hillside to the east of Palos Verdes Drive South and the U.S. Coast Guard Lighthouse. Much of this area has been grubbed with the exception of the intermittent patches of the native plant communities. This area consists of hilly terrain sloping south and downward to the bluffs with numerous worn footpaths traversing through the area. This area includes the City Yard (a fenced outdoor storage and maintenance facility) along with areas which have been graded and overlain by intermittent asphalted areas and gravel. Debris dumpsters, construction lumber, and fencing remnants are located throughout the yard (refer to Photo 1 in Exhibit 5.1-2A, *Views of UPVA*). Also located in the UPVA, between the City Hall and the existing City Yard, is a helipad used by the Los Angeles County Fire Department. A small farm with associated storage sheds and various row crops is located in the southeastern portion of the UPVA, on the hillside overlooking the former Marineland Park and the Pacific Ocean (refer to Photo 2 in Exhibit 5.1-2A. The remaining portions of the UPVA are comprised of vacant land vegetated predominately with disturbed and non-native grassland habitat (refer to Photo 1 in Exhibit 5.1-2B, *Views of UPVA*. However, the UPVA also contains limited areas of native plant communities including coastal sage scrub and southern cactus scrub (refer to Photo 2 in Exhibit 5.1-2B).

Exhibit 5.1-1B, *Views of RHA*

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Views of Resort Hotel Area

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Exhibit 5.1-1B

PHOTO 1

PHOTO 2

LONG POINT RESORT EIR

Views of Upper Point Vicente Area

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Exhibit 5.1-2A

LONG POINT RESORT EIR

Views of Upper Point Vicente Area

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Exhibit 5.1-2B

To the east of the UPVA, the topography is largely the same with sparse vegetation. Although the area to the east is largely vacant, onsite uses include tennis courts, institutional buildings (the Salvation Army facility) and single family residences. Uses and features to the north of the Project area include Hawthorne Boulevard, a small "A-framed" church (St. Paul's Lutheran Church), and a two-story condominium complex (Via Capri) with Spanish features and balconies (refer to Photo 1 in Exhibit 5.1-2B). This residential area is downslope of the UPVA and adjacent to a neighborhood shopping center (Golden Cove Shopping Center). The remaining portion of the City Hall complex is located within the central portion of the UPVA.

LIGHT AND GLARE

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes through windows. Second, light projects from exterior sources such as street lighting, building illumination, security lighting, and landscape lighting. Glare mainly results from sunlight reflection off flat building surfaces, with glass typically contributing the highest degree of reflectivity. Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can disturb wildlife in natural habitat areas.

Lighting in Rancho Palos Verdes is regulated by Section 17.56.040 of the Rancho Palos Verdes Development Code which provides the Standards and Criteria for outdoor lighting in non-residential areas. This Section states that no outdoor lighting shall be installed in any nonresidential district, except in accordance with the provisions of the Section. The provisions state that prior to the issuance of the first Certificate of Occupancy, a Lighting Plan prepared by a lighting contractor shall be submitted to the City for approval and shall be in conformance with specified standards and criteria. The Plan is required to include the location, height, number of lights, wattage, estimates of maximum illumination on site and spill/glare at property lines.

Resort Hotel Area

Currently, there is minimal lighting and glare effects being emitted from the remaining operational buildings located within the former Marineland Park area. The facilities which remain operational include, the Catalina Room, a banquet facility and an administration office. Safety-oriented exterior lighting from the Villas Apartments occurs east of the Project area as well as the light and glare caused by car headlights associated with Palos Verdes Drive South. There are no streetlights associated with Palos Verdes Drive South.

Upper Point Vicente Area

Limited light and glare associated primarily with the City Hall complex is currently generated within the UPVA. Residential safety-oriented exterior lighting from the Via Capri Condominiums occurs north of the Project area as well as lighting from the Golden Cove Shopping Center located north of the UPVA. Additionally, light and glare caused by car headlights and streetlights associated with Palos Verdes Drive South and Hawthorne Boulevard affect the UPVA.

RANCHO PALOS VERDES GENERAL PLAN

The Rancho Palos Verdes General Plan addresses the preservation, restoration, and enhancement of significant visual features related to the Project area. The Plan further identifies Visual Aspects, Visual Accents and View Corridors which are relevant to the proposed Project(refer to Exhibit 5.1-3, *Visual Aspects*). Additionally, it should be noted that the General Plan sets forth certain policies relating to visual resources. These policies are detailed in Table 5.7-2, *General Plan Consistency Analysis*.

Visual Aspects

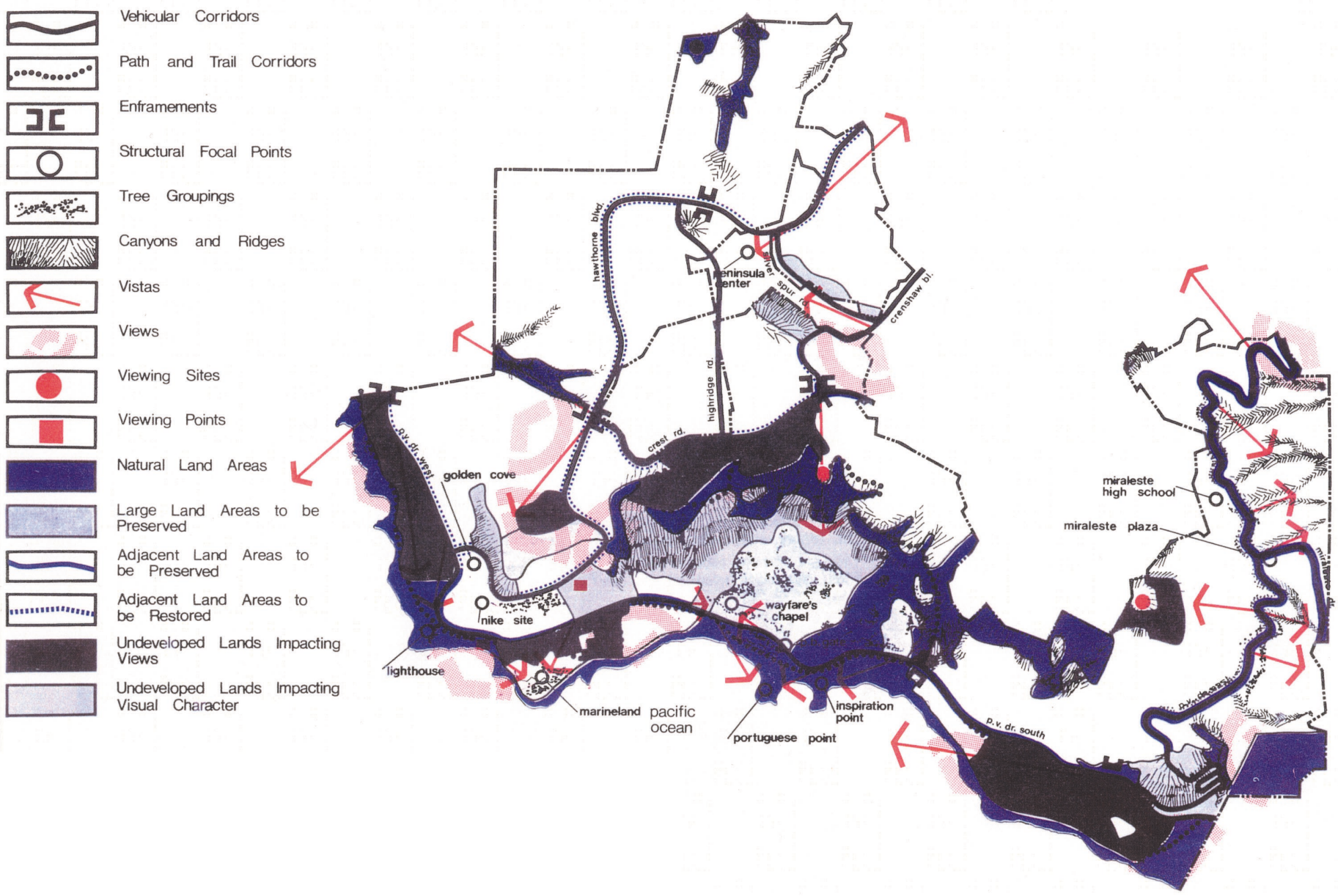
The General Plan also identifies several visual aspects relevant to the UPVA and the RHA. Visual Aspects, are divided into two categories: Views and Vistas.

Views. A view is a scene observed from a specific vantage point. Views represent an unfocused visual aspect which extends to the horizon of a distant focal point (i.e., Catalina Island rather than a lighthouse oriented focused view), and has an unlimited arc and depth. These views can be either continuous (as viewed from along a public corridor), or localized (as viewed from a specific site) in nature.[2]

As illustrated in Exhibit 5.1-3, two views are identified in the Project area. Catalina Island and the Pacific Ocean are viewed from along the Palos Verdes Drive South corridor: one view is situated east of the RHA and the other is situated west of the RHA (refer to Exhibit 5.1-10, *Photo Simulation 5* and Exhibit 5.1-11, *Photo Simulation 6,* located at the end of Section 5.1). Areas directly behind the bluffs, north of Palos Verde Drive South extending east from the U.S. Coast Guard Lighthouse (including portions of both the UPVA and the RHA) have panoramic views of the bluffs, the Pacific Ocean, and Catalina Island. In addition, residences north of Hawthorne Boulevard and immediately east of Nantasket Drive have largely the same view.

Exhibit 5.1-3, *Visual Aspects*

[2] Rancho Palos Verdes General Plan, June 1975, Page 188.



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SOURCE: RANCHO PALOS VERDES GENERAL PLAN, 1975

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LONG POINT RESORT EIR

Visual Aspects

Exhibit 5.1-3

Vista. A vista is defined in the General Plan as a confined view, which is usually directed toward a terminal or dominant element or feature. A vista, unlike a view, may be created in its entirety and is therefore subject to close control through visual enframements. Each vista has, in simplest terms, a viewing station, an object or objects to be seen, and an intermediate ground. The three together make a unit and are usually conceived as an entity. If one or more of the elements already exist and are allowed to remain, then the others must be designed in harmony.

As illustrated in Exhibit 5.1-3, two vistas are identified in the Project area. Both of these vistas are oriented toward what was once the location of the Marineland Aquatic Park tower (refer to Exhibit 5.1-6, *Photo Simulation 1* and Exhibit 5.1-9, *Photo Simulation 4*). These vistas containing the former tower as a structural focal point have changed. A majority of the Marineland Park was dismantled, the tower was removed, and the remaining facilities are in a degraded state as a result of the closure.

Visual Accents

Views and vistas can be enhanced through various visual accents, with vistas being dramatically affected by the existence of one or more of these accent elements. Visual accents relevant to the Project site include the following:

Structural Focal Point. A structural focal point is defined within the General Plan as a major architectural element tending to focus viewer attention from a variety of view locations along major corridors and from major public lands.

As illustrated in Exhibit 5.1-3, two structural focal points, the Marineland Park Tower on the RHA and the Nike Missile site on the UPVA, are identified within the Project boundaries. The Marineland Park Tower structure is no longer considered a structural focal point with beneficial aesthetic value. The tower was removed with the closure of Marineland. Additionally, a majority of the Nike Missile site located on the UPVA has been removed. Currently only the concrete pads and railing associated with the missile silos remain (additional facilities exist underground).

Natural Focal Point. Significant tree groupings is by definition a natural focal point. Due to the random presence of mature tree groupings within the City, significant masses or lines of trees represent a generalized natural focal point of interest and sets a theme for some areas of the community.

As illustrated in Exhibit 5.1-3, a tree grouping (consisting of numerous palm and non-native trees) is identified on the RHA throughout the former Marineland Park. This tree grouping provides a natural focal point for viewers in the surrounding area. The tree density is greatest at the southern portion of the Project area, above the bluffs (refer to Exhibit 5.1-11, *Photo Simulation 6*). The trees located in this area appear to be unhealthy and ungroomed.

View Corridors

The visual character of a city or region affects how people relate either positively or negatively to an area. Primary visual impact is conveyed through the major circulation or path and trail networks within the City. These are the primary corridors which provide a visual interpretation to a majority of the populace.

Vehicular Corridor. Vehicular view corridors take into account two elements, the visual quality of a corridor, and safety problems associated with visual distractions. The interruption created by vehicles slowing for view enjoyment introduces potential hazards and reflects possible lack of adequate vista points for enjoying a specific vista.

As illustrated in Exhibit 5.1-3, two vehicular view corridors are located along the Project boundaries: along Palos Verdes Drive South and along Hawthorne Boulevard. The Palos Verdes Drive South corridor, generally extending from the northwestern corner of the UPVA to the northeastern corner of the RHA, provides vehicular view corridor opportunities. Exhibits 5.1-8, *Photo Simulation 3* and Exhibit 5.1-13, *Photo Simulation 8*, illustrate the views along Palos Verdes Drive South. Additionally, the segment of Hawthorne Boulevard immediately north of the UPVA provides vehicular view corridor opportunities looking south-southeast. Both vehicular corridors provide panoramic views of the Pacific Ocean and Catalina Island.

Adjacent Lands Impacting Corridors. Concern for the appearance of adjacent land areas which impact major corridors is reflected in the indication of areas that are to be preserved, restored, or enhanced. The concern over these areas is how a proposed development will visually impact a corridor. The following categories of adjacent lands impacting corridors are pertinent to the Project site:

Adjacent Land Areas to be Preserved

This category includes areas along corridors which are of significant visual appeal. As illustrated in Exhibit 5.1-3, the land area which extends along the Palos Verdes Drive South corridor from the northwestern corner of the UPVA to the northeastern corner of the RHA is defined as adjacent land areas to be preserved (refer to Exhibit 5.1-12, *Photo Simulation 7*). Additionally, the General Plan identifies a swath of lands on the UPVA along Palos Verdes Drive South and Palos Verdes Drive West.

Undeveloped Lands Impacting Views

These critical concern areas will have the greatest effect on altering the imagery provided along major corridors. The chances for blocking, altering, and degrading existing significant views and vistas within the City could be adversely impacted by

developments. As illustrated in Exhibit 5.1-3, the northern portion of the RHA situated along Palos Verdes Drive South falls within this category (refer to Exhibit 5.1-12, *Photo Simulation 7*). Much of this area is currently undeveloped and allows for views of the Pacific Ocean and Catalina Island. However, parking areas and the remnants of the Marineland use of the site are visible from various vantages.

Natural Areas

These are major natural areas which can be viewed from corridors and will be preserved. These natural features provide viewers with a feeling for the rural atmosphere in the City. As illustrated in Exhibit 5.1-3, natural areas are located on the south and west facing bluffs that underlie the RHA. These bluffs are very steep and are vegetated with southern coastal bluff scrub (refer to Exhibit 5.1-6, *Photo Simulation 1*).

Viewing Areas

Viewing areas are defined as public land areas which are either solely for use of viewing or contain site design areas for this purpose.

Viewing Points. A viewing point is a viewing area which is defined as a turnout along a vehicular corridor for the purpose of viewing. As illustrated in Exhibit 5.1-3, the Point Vicente Fishing Access is a designated viewing point. This viewing point is located immediately west of the RHA and is a roadway turnout which allows for views of Point Fermin, Catalina Island, and the Pacific Ocean (refer to Exhibit 5.1-7, *Photo Simulation 2*). Exhibit 5.1-7 demonstrates the view from the fishing access. This view, looking east-southeast, is dominated by the west facing bluffs overlooking the Pacific Ocean and the UPVA bluffs. The remaining structures and vegetation of the former Marineland Park, along with Point Fermin, are evident in the background.

RANCHO PALOS VERDES COASTAL SPECIFIC PLAN

The Corridors Element of the Coastal Specific Plan (Specific Plan) joins together components of the various physical elements proposed by the General Plan through the use, preservation, and enhancement of access, edges, and visual and natural characteristics. Corridors are generally of a linear nature although individual corridor components may not be; they can be public or private; they may be of a regional or neighborhood importance; and they may be man-made or natural.

Visual Corridors are not affixed to the physical environment (man-made or natural) but rather, directed by or oriented to the physical environment. A visual corridor may be of a “linear” type which is specifically directed to a focal point or it can be a broader, less specific view which is referred to as an arc. Visual corridors may be

taken from any number of locations or orientations, but the emphasis of the Specific Plan is from terrestrial and marine access corridors.

The Visual Corridors section of the Specific Plan deals with the establishment of visual corridors which have dimensions for both vistas and views as a further extension of their definition in the General Plan (refer to *Views* and *Vistas* discussions above).

The visual corridors which have been identified in the General Plan and are discussed in the Specific Plan, are considered to have the greatest degree of visual value and interest to the greatest number of viewers; and are thus a function of Palos Verdes Drive as the primary visual corridor accessible to the greatest number of viewers, with views of irreplaceable natural character and recognized regional significance.[3]

Public viewing stations within the Coastal Specific Plan area from which a majority of residents and visitors view the community are either the vehicular corridor of Palos Verdes Drive or turnouts along vehicular corridors for the purpose of viewing. Thus viewing stations are:

- Continuous - viewed along the public corridor of Palos Verdes Drive; or
- Localized - as viewed from a specific site or turnout.

The viewing focal points have been clarified as either specific or non-specific, which is the primary difference between the two types of visual aspects (vistas and views) defined in the General Plan.

Specific Visual Corridors having both a horizontal and vertical dimension have been identified for vistas. The vista corridors have been put into three categories based upon the focal point's angle from the direction of movement along Palos Verdes Drive and visibility of the focal point. The vista corridors are divided into the following categories:

- Direct/Full Visibility - The focal point is entirely visible within a 0 - 32.5 degrees angle from the direction of movement[4];

[3] *Rancho Palos Verdes Coastal Specific Plan*, December 1978, page C-9.

[4] The angle used to define direct vs. indirect visibility is based upon an assumed average speed for travel along the Palos Verdes Drive vehicular corridor. The driver's as well as the passenger's attention is directed forward and the angle of vision is a direct relationship of speed. The cone of vision at a speed of 45 mph is 65 degrees or 32.5 degrees to either side. This angel was used to differentiate between direct (0 - 32.5degrees) and indirect (32.5 - 90 degrees). A 90 degree angle to the side was determined to be out of the normal angel of vision of driver and passenger.

- Direct/Partial Visibility - The focal point is partially obstructed or obscured (i.e. chain link fence or vegetation) within a 0-32.5 degree angle from the direction of movement; and
- Indirect Visibility - The focal point is within a 32.5 - 90 degree angle from the direction of movement, or a secondary area of vision (i.e., corner of the eye, peripheral).

The boundaries of the vistas identified along Palos Verdes Drive South are defined both vertically and horizontally on Exhibit 5.1-4, *Visual Corridors*, of this EIR, and in Specific Plan Figures 27, *Distant Views*, and 28, *Typical Sections*. These boundaries were established by the methodology outlined in the Coastal Specific Plan Corridors Element.

Height limitations have been set for these visual corridors. A visual corridor is assigned vertical zone characteristics with varying height limitations. A vertical zone 1 designation limits structures to a height of less than 16 feet. A vertical zone 2 designation allows structures to heights ranging from 16 to 30 feet. A vertical zone 3 designation allows structures to exceed 30 feet in height.

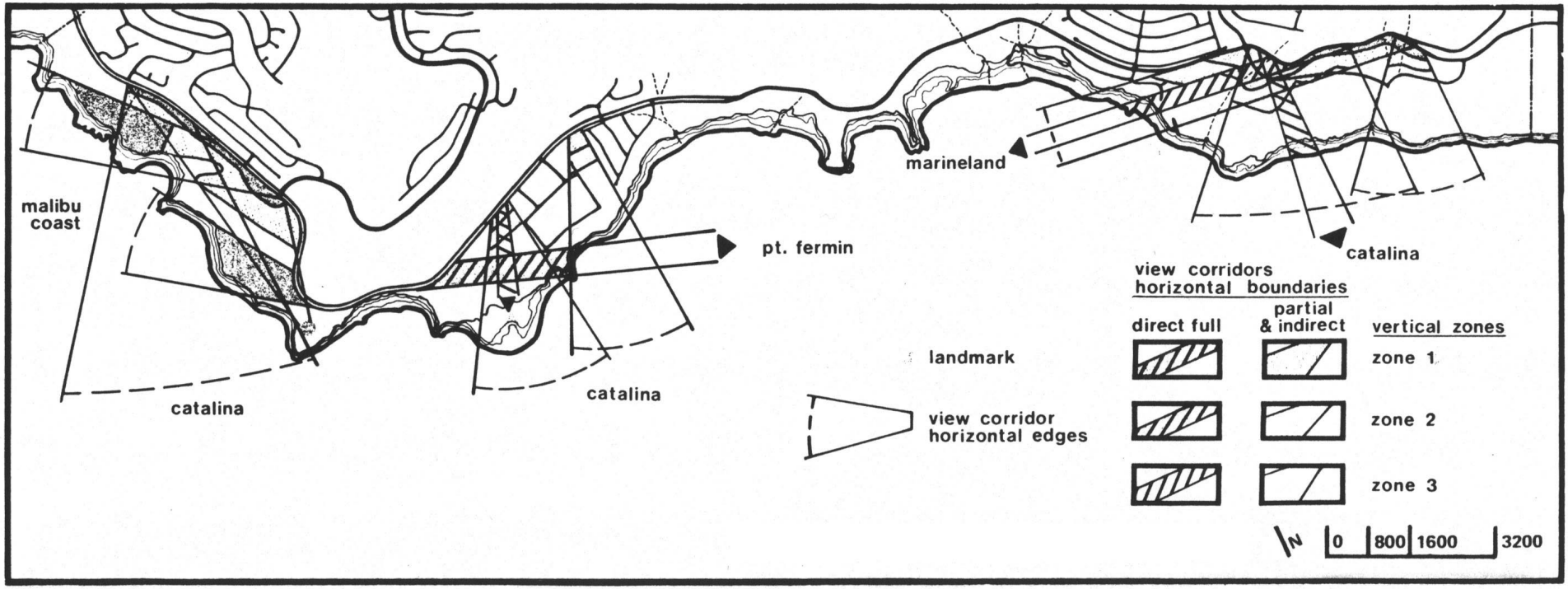
The Direct/Full Visibility Vista, being the most valuable, should receive the highest priority for preservation protection and enhancement; with the height zones establishing zones of development restriction based upon zoning.

As illustrated in Exhibit 5.1-4, both direct and partial/indirect view corridors are identified in the Project area along Palos Verdes Drive South. These are described as follows:

- Direct full view of a landmark (Marineland Tower) from a location near the historical entrance to Marineland (refer to Exhibit 5.1-9, *Photo Simulation 4*);

- Direct full view of Point Fermin from the northwest portion of the RHA (refer to Exhibit 5.1-6, *Photo Simulation 1*, and Exhibit 5.1-7, *Photo Simulation 2*); and

Exhibit 5.1-4, *Visual Corridors*



NOT TO SCALE

SOURCE: RANCHO PALOS VERDES COASTAL SPECIFIC PLAN, 1978

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Visual Corridors

Exhibit 5.1-4

- Partial/indirect view of Catalina Island from a location near the historical entrance to Marineland (refer to Exhibit 5.1-9, *Photo Simulation 4*).

Additionally, the majority of the Palos Verdes Drive South corridor adjacent to the RHA possesses visual aspects which qualify as views (i.e., broad focal points). Those segments of Palos Verdes Drive South from which the ocean may be seen qualify as views from this corridor.

To protect this visual relationship between Palos Verdes Drive South and the ocean in those areas which are not part of an identified vista corridor, no buildings should project into a zone measured 2 degrees down-arc from horizontal as measured along the shortest distance between the viewing station elevation and the focal point elevation.

RANCHO PALOS VERDES DEVELOPMENT CODE

Development Code Section 17.02.040, *View Preservation and Restoration*, defines "view" as follows:

> "On the Palos Verdes Peninsula, it is quite common to have a near view and a far view because of the nature of many of the hills on the peninsula. Therefore, a 'view' which is protected by this Section is as follows:
>
> - A 'near view' which is defined as a scene located on the peninsula including, but not limited to, a valley, ravine, equestrian trail, pastoral environment or any natural setting; and/or
>
> - A 'far view' which is defined as a scene located off the peninsula including, but not limited to, the ocean, Los Angeles basin, city lights at night, harbor, Vincent Thomas Bridge, shoreline or off-shore islands."

A "View" which is protected by this Section shall not include vacant land that is developable under the city code, distant mountain areas not normally visible nor the sky, either above distant mountain areas or above the height of off-shore islands. A "View" may extend in any horizontal direction (three hundred and sixty degrees of horizontal arc) and shall be considered as a single view even if broken into segments by foliage, structures or other interference." As illustrated in Exhibit 5.1-3, *Visual Aspects*, a panoramic view of the bluffs, the Pacific Ocean, and Catalina Island is available from the RHA and the UPVA.

Development Code Section 17.54.040, *Screening of Mechanical Equipment*, storage areas and loading docks, is defined as follows:

> "All mechanical equipment, such as air conditioners, heaters and exposed ducting and plumbing, and all outside storage areas and loading docks shall be screened from view of public areas, public streets and affected properties. The design of proposed screening devices shall be approved by the director. Such screening shall not significantly impair views as set forth in Section 17.02.040, View Preservation and Restoration."

Development Code Section *17.56.020,Conduct of Construction and Landscaping Activities*, is defined as follows:

- "Upon issuance of a building or grading permit, all construction projects which remain in operation or expect to remain in operation for over thirty calendar days shall provide temporary construction fencing, as defined in Chapter 17.96 (Definitions). Unless required to protect against a safety hazard, temporary construction fencing shall not be erected sooner than fifteen days prior to commencement of construction. Once erected, temporary construction fencing shall be subject to standards and conditions. Standards/conditions include, but are not limited to the following: regarding fencing location, maintenance and removal.

- All construction sites shall be maintained in a secure, safe, neat and orderly manner. All construction waste and debris resulting from a construction, alteration or repair project shall be removed on a weekly basis by the contractor or property owner."

Upper Point Vicente Area

Open Space Recreational District (OR) (Section 17.34.B). Development standards have been specified and shall apply to all privately owned land and structures in the open space recreation district with respect to building height as follows:

> "Institutional buildings erected within this District shall have a building height not greater than sixteen feet and shall not exceed one story, except with the approval of a conditional use permit by the planning commission, pursuant to Chapter 17.60 (Conditional Use Permits)."

Institutional District (I) (Section 17.26.B). Development standards have been specified and shall apply to all privately owned land and structures in the institutional district with respect to building height as follows:

> "Institutional buildings erected in the city within this District shall have a building height not greater than sixteen feet and shall not exceed one story, except with the approval of a conditional use permit by the planning commission."

Resort Hotel Area

Commercial Recreational District (CR) (Section 17.22.D). Buildings above sixteen feet in height may be permitted by the planning commission pursuant to a conditional use permit provided that:

- "The proposed height is determined to be consistent with the goals and policies of the coastal specific plan, particularly as related to view and open space preservation;
- The proposed height results in the provision of additional public open space and the creation or protection of identified visual corridors;
- The proposed height is compatible and in visual scale with the overall development concept for the property; and
- The structure, at the proposed height, does not significantly impair a public or private view as defined in Section 17.02.040 (View Preservation and Restoration) and is designed in a manner that minimizes view impairment. (Ord. 320 § 7 (part), 1997: Ord. 250 § 10 (part), 1990)."

IMPACTS

Significance Criteria

Appendix G, *Initial Study Checklist*, of the California Environmental Quality Act (CEQA) Guidelines includes checklist questions relating to aesthetics. A project would potentially create a significant aesthetic impact if it caused one or more of the following to occur:

- Have a substantial adverse effect on a scenic vista (refer to Impact Statement 5.1-1 and 5.1-3);
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (refer to Impact Statement 5.1-3);
- Substantially degrade the existing visual character or quality of the site and its surroundings (refer to Impact Statement 5.1-2); and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (refer to Impact Statement 5.1-4).

The evaluation of aesthetic impacts can be termed a subjective exercise due to widely varying personal perceptions. Nevertheless, replacement of undeveloped land with recreational and commercial uses would permanently alter the appearance of the Project area. Potential impacts are categorized below according to topic. Mitigation measures at the end of this Section directly correspond to the numbered impact statements below.

SHORT-TERM IMPACTS

5.1-1 *Grading and construction activities associated with Project implementation may temporarily degrade the existing visual character or quality of the Project sites and their surroundings. Impacts are considered to be short-term; would cease upon completion of construction activities and would be less than significant through compliance with the City's Development Code.*

Project construction activities would disrupt views across the sites from surrounding areas. Graded surfaces, construction debris, construction equipment and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations throughout the Project sites. These impacts would be short-term and cease upon Project completion. These impacts would be considered as less than significant through compliance with Development Code Section 17.56.020, *Conduct of Construction and Landscaping Activities*, with respect to temporary construction fencing and the maintenance of all construction sites. Further, construction-related impacts are not considered significant as they are anticipated to be short-term and would cease upon Project completion.

LONG-TERM IMPACTS

Visual Character

5.1-2 *Project implementation may permanently degrade the existing visual character or quality of the Project sites and their surroundings. This impact would be less than significant through compliance with applicable Development Codes.*

With development of the proposed resort hotel and recreational facilities (i.e., golf course, practice facility, parks, trails, etc.), the visual character of the Project sites would be altered. This alteration of appearance is permanent and would continue throughout the life of the Project.

Upper Point Vicente Area. The existing nature and appearance of the UPVA of predominantly undeveloped lands vegetated with disturbed and non-native grassland habitat, as well as agricultural uses and institutional buildings/city yard, would be replaced primarily with manicured lawns, and to a lesser degree with new native vegetation. Two new buildings (i.e., golf practice facility and maintenance

facility) would also be developed on the UPVA (refer to Photo 1 in Exhibit 5.1-2B, *Views of UPVA*). Those portions of the UPVA containing native plant communities (i.e., coastal sage scrub and southern cactus scrub) would be expanded as a result of the Project's proposed habitat enhancement and restoration. Additionally, certain weedy disturbed areas would be replaced with vegetation native to coastal Southern California, thus, creating a beneficial visual impact.

Although these proposed improvements would transform the character of the UPVA from a generally undeveloped to a developed condition, they would not be considered a degradation to the character of the site or its surroundings. The UPVA would remain in an "open" condition, similar in character to the existing site condition and visually compatible with existing surrounding land uses. Further, the proposed Project would be in compliance with each of the zoning districts on the UPVA (refer to Section 5.7, *Land Use and Relevant Planning*) and would be required to demonstrate compliance with the specified development standards for each district regarding lot size, building height, lot coverage and parking. Additionally, it should be noted that no netting of the golf course or practice facility is proposed and utility lines would be placed underground in accordance with the City's Development Code. Compliance with applicable Development Codes for each zoning district would reduce impacts to a less than significant level.

Resort Hotel Area. Implementation of the proposed Project on the RHA would be considered an aesthetic enhancement to the site. The existing character of the site of an abandoned land use containing vast parking lots and dilapidated structures over grown with weeds and unkempt vegetation would be replaced with new buildings, a golf course, parking areas and landscaping throughout. Additionally, undeveloped lands vegetated with disturbed and non-native grassland habitat would be replaced with manicured lawns.

Implementation of the proposed Project would permanently alter the nature and appearance of the site to a resort hotel and golf course (refer to Photo Simulations 7 and 4). The RHA would be developed with Mediterranean style villas, casitas and a hotel, which would be compatible with the surrounding architectural theme. The resort hotel and golf course proposed on the RHA would be visible from adjacent areas. The transformation of the site resulting from these proposed improvements would not be considered a degradation to the character of the site or its surroundings. Therefore, a significant impact would not occur in this regard.

Project design, height and architecture would be subject to review by the City to ensure conformance with applicable Development Codes, thus, reducing potential impacts to less than significant levels.

Rancho Palos Verdes General Plan

5.1-3 *Project implementation may have a substantial adverse effect on a scenic vista or resource identified in the General Plan. After compliance with*

applicable City codes potential impacts would be considered as less than significant.

The Rancho Palos Verdes General Plan addresses significant visual resources related to the Project area (refer to the *Existing Conditions* discussion and Exhibit 5.1-3, *Visual Aspects*). The following analysis evaluates the Project's potential to impact these visual resources.

Visual Aspects

Views. As illustrated in Exhibit 5.1-3, two views are identified in the Project area. Catalina Island and the Pacific Ocean are viewed from along the Palos Verdes Drive South corridor, with one view situated east and the other west of the RHA.

Exhibit 5.1-10, *Photo Simulation 5*, and Exhibit 5.1-11, *Photo Simulation 6*, facing southwest, illustrates the view available from this area. The current view of the Pacific Ocean is partially obscured by the intermediate ground and the remaining landscaping. The existing degraded condition and debris piles are evident in *Photo Simulation 6*. This view would be replaced by the golf course and the east casitas followed by the main hotel. The proposed east casitas and Golf Clubhouse buildings would intrude slightly, although not entirely obstruct, this existing view.

Exhibit 5.1-6, *Photo Simulation 1*, and Exhibit 5.1-13, *Photo Simulation 8*, illustrate the view from Rancho Palos Verdes Drive South (northwest of RHA), as the area currently exists and with Project implementation. The existing view would be replaced with the new development that is dwarfed by the Pacific Ocean in the background. As evidenced in this simulation, Project implementation would not intrude on the overall panoramic view of the seacoast, Pacific Ocean or Catalina Island.

Exhibit 5.1-12, *Photo Simulation 7*, from north-northwest of the RHA, the background of this simulation illustrates the view as much the same, with Project implementation eliminating the view of the degraded large scale parking lots and the remaining degraded Marineland Park structures. Due to the degraded condition of the Project area, implementation of the proposed Project would eliminate the current blighted condition, replacing the existing structures and large scale parking lots with a golf course, tennis courts, casitas, bungalows and a hotel; therefore, creating a beneficial effect on the RHA. Furthermore, Project design, height and architecture would be subject to review by the City to ensure conformance with applicable Development Code standards. A significant impact would not occur in this regard.

The foreground of this simulation depicts the UPVA as disturbed agricultural land comprised of various row crops and weedy areas. Habitat restoration would occur with Project implementation, within and along the perimeters of the proposed Golf

Course on the UPVA, changing the agricultural and disturbed areas to conditions native to Coastal Southern California; thus, creating a beneficial visual impact.

Exhibit 5.1-7, *Photo Simulation 2*, facing southeast from the fishing access, illustrates the view as largely the same as that in Photo Simulation 7. However, from this view point, a portion of the view of the Pacific Ocean is obstructed by the proposed west casitas and landscaping. This would be considered as less than significant upon review by the City of Project design, height and architecture to ensure conformance with applicable Development Code standards.

Concern has been expressed from adjacent residences with respect to the alteration of views in the northern portion of the UPVA. Implementation of the proposed Project would permanently alter the nature and appearance of the UPVA from predominately undeveloped land to a golf course and practice facility (refer to Exhibit 5.1-14, *Photo Simulation 9*, Exhibit 5.1-15, *Photo Simulation 10*, and Exhibit 5.1-17, *Photo Simulation 12*). The proposed golf course and practice facility would remain open in nature. The distant view of the RHA from the UPVA is dwarfed by the ocean and Catalina Island in the background (refer to *Photo Simulation 7*). The RHA currently appears as a vast parking lot with intermittent patches of vegetation. This view would be altered; the vast parking lots would be replaced by a golf course, tennis courts, and the casitas followed by the main hotel in the background. The resort hotel structures and the golf course structures would not intrude on the overall panoramic view of the Pacific Ocean or Catalina Island. Furthermore, habitat restoration would occur within and along the perimeters of the proposed golf course, changing the weedy disturbed areas to conditions native to Coastal Southern California, thus creating a beneficial visual impact.

In summary, the proposed Project would be in compliance with each of the zoning districts on the RHA (refer to Section 5.7, *Land Use and Relevant Planning*) and would be required to demonstrate compliance with the specified development standards for each district regarding lot size, building height, lot coverage and parking. Compliance with applicable Development Codes for each zoning district would further reduce impacts to a less than significant level. Additionally, Project design, height and architecture would be subject to design review by the City to ensure conformance with applicable Development Code Standards. A significant impact is not anticipated in this regard.

Vista. As illustrated in Exhibit 5.1-3, two vistas are identified in the Project area: both oriented toward what was once the location of the Marineland Aquatic Park tower (refer to Exhibit 5.1-6, *Photo Simulation 1*, and Exhibit 5.1-9, *Photo Simulation 4*. These vistas which were directed to the Marineland Tower as a structural focal point are no longer applicable since the Tower has been removed. Since the closure of Marineland, the remaining facilities are in a degraded state. Therefore, the Project has no impact on this vista as it no longer exists.

Visual Accents

Structural Focal Point. As illustrated in Exhibit 5.1-3, two structural focal points, the Marineland Park Tower on the RHA and the Nike Missile site on the UPVA, are identified within the Project boundaries. Other examples of structural focal points are the Golden Cove shopping center, the Point Vicente Lighthouse, and Wayfarers Chapel. Each of these is a man-made focal point, as would be a proposed resort hotel with good architectural design. Although the proposed resort hotel would not be the focal point referenced in the General Plan, the concept of a man-made focal point on the RHA would not be foreign to this site. Therefore, less than significant impact would be anticipated in this regard. Also, refer to the *Vista* section above for a discussion of the Marineland Park Tower.

A majority of the Nike Missile site located on the UPVA has been removed. Currently only the concrete pads and railing associated with the missile silos remain (additional facilities exist underground). This remaining portion of the Missile site is limited in its representation of the original facility and is degraded in nature. The portions of the Nike Missile Site which remain at surface level would be covered with a golf course, thus removing the view of this structural focal point. However, due to the degraded condition of the existing structures, Project implementation would not result in a significant impact in this regard. Further, habitat restoration would occur within and along the perimeters of the proposed golf course, changing the weedy disturbed areas to conditions native to Coastal Southern California, thus creating a beneficial visual impact to the scenic resources in this area.

Natural Focal Point. The numerous palm and non-native trees that are dispersed throughout the former Marineland area would be impacted by implementation of the proposed Project(refer to Exhibit 5.1-11, *Photo Simulation 6*). However, as previously noted, these trees appear to be unhealthy and ungroomed. Some of these trees would be preserved and/or relocated as part of the landscape recovery program. This initial operation is projected to begin in the second quarter of 2001 and involves the excavation, boxing, and preservation (for replanting) of arborist-identified specimen trees and shrubs existing within the RHA (refer to Section 5.8, *Biological Resources*). Additionally, preserved and newly planted trees would be maintained and groomed on an ongoing basis for the life of the proposed Project.

View Corridors

Vehicular Corridor. The segment of Palos Verdes Drive South, extending along the northern boundary of the RHA provides vehicular view corridor opportunities. Exhibit 5.1-8, *Photo Simulation 3*, and Exhibit 5.1-13, *Photo Simulation 8*, illustrate the views along Palos Verdes Drive South of the Pacific Ocean, Catalina Island, and of the former Marineland area. In *Photo Simulation 1*, the remaining Marineland vegetation is visible, while only a limited view of the parking lot is available. This view is dominated by the west side of the Long Point bluffs. Point Fermin can be seen in the background from this vantage point. This view corresponds to the Point Fermin vista corridor identified in the City General Plan and the Coastal Specific

Plan. In this Photo Simulation it is evident that the proposed development would not interfere with the views of Point Fermin or the bluffs. Several casitas can be seen in this simulation with the remaining resort hotel in the background, while the golf course in not easily depicted. It is evident in this Photo Simulation that the development would not intrude on the overall panoramic view of the seacoast, Pacific Ocean or Catalina Island. Additionally, Project planning design, landscape and building height, and architecture would be subject to design review by the City to ensure conformance with applicable Development Codes and conditioned accordingly.

Additionally, the segment of Hawthorne Boulevard immediately north of the UPVA provides vehicular view corridor opportunities looking south-southeast. Both vehicular corridors provide panoramic views of the Pacific Ocean and Catalina Island. Project implementation is not anticipated to impact views along this corridor due to the grade differentials between the site and the road. Therefore, a significant impact would not occur in this regard.

Adjacent Lands Impacting Corridors.

Adjacent Land Areas to be Preserved

According to Exhibit 5.1-3, *Visual Aspects*, the land extending along the perimeters of Palos Verdes Drive South, the southernmost portion of the UPVA and the northernmost portion of the RHA, is defined within the General Plan as adjacent land areas to be preserved. This area is currently comprised of a variety of vegetation communities such as: coastal sage scrub, non-native grassland, and non-native disturbed areas. The coastal sage scrub communities would be preserved, while the adjoining non-native ruderal areas would be included in a habitat restoration plan (refer to Section 5.3, *Biological Resources*). The restored land would be vegetated with coastal sage scrub communities, native to Coastal Southern California, thus creating a beneficial visual and biological impact. Also refer to Exhibit 5.1-12, *Photo Simulation 7*.

Undeveloped Lands Impacting Views

The RHA along Palos Verdes Drive South is largely undeveloped and allows for views of the Pacific Ocean and Catalina Island. The resort villas are located within an area designated in the General Plan as Undeveloped Lands Impacting Views. Exhibit 5.1-9, *Photo Simulation 4,* demonstrates the current undeveloped, yet heavily vegetated nature of the Project area. As seen in this simulation, Project implementation would provide a view of a well maintained landscaped area with the resort villas in the background.

As illustrated in Exhibit 5.1-12, *Photo Simulation 7,* the existing views of the Project area would be replaced with the new development and the Pacific Ocean in the background. As illustrated in these simulations, the proposed development would

not intrude on the overall panoramic view of the seacoast, Pacific Ocean or Catalina Island. The proposed development would eliminate the view of the large scale parking lots and the remaining Marineland structures. Due to the degraded condition of the Project area, implementation of the proposed Project would eliminate the current blighted condition, replacing the existing structures and large scale parking lots with a golf course, tennis courts, one and two-story casitas and the hotel; thus, creating a beneficial visual effect on the RHA. Furthermore, Project design, height and architecture would be subject to review by the City to ensure conformance with applicable Development Code standards.

Natural Areas

The natural areas located on the south facing bluffs that underlie the RHA would be preserved and restored. As depicted in Exhibit 5.1-6, *Photo Simulation 1*, these bluffs would not be developed; additionally, conformance with Development Code Section 17.48.030 regarding setbacks, would ensure the preservation of these bluffs. Therefore, a significant impact is not anticipated in this regard.

Viewing Areas

Viewing Points. Point Fermin can be seen in the background of Exhibit 5.1-6, *Photo Simulation 1*, due west of the Fishing Access, facing southeast. This view corresponds to the Point Fermin vista corridor identified in the City General Plan and the Coastal Specific Plan. In Exhibit 5.1-6, it is evident that the proposed development would not interfere with the views of Point Fermin or the bluffs. Several casitas can be seen in this simulation with the remaining resort hotel in the background. The golf course in visible in the foreground of this simulation.

The Point Vicente Fishing Access, allows for views from the parking lot adjacent to Palos Verdes Drive South, of the former Marineland Park area as well as views of the Pacific Ocean, Catalina Island and Point Fermin. In Exhibit 5.1-7, *Photo Simulation 2*, the remaining Marineland vegetation is visible, while only a limited view of the parking lot is available. This view is dominated by the west side of the Long Point bluffs. It is evident in these Photo Simulations that the development would not intrude on the overall panoramic view of the seacoast, Pacific Ocean or Catalina Island. However, the introduction of ornamental vegetation may obstruct views of Point Fermin and the Pacific Ocean (as is evident in *Photo Simulation 2*). This would be considered as less than significant upon review by the City of Project planning design, landscape and building height, and architecture to ensure conformance with applicable Development Code standards. Also, refer to the *Coastal Specific Plan* discussion and mitigation measures regarding impacts to the Point Fermin view.

RANCHO PALOS VERDES COASTAL SPECIFIC PLAN

5.1-4 *Project implementation may have a substantial adverse effect on a scenic vista or resource identified in the Coastal Specific Plan. This impact would be considered as less than significant with mitigation.*

The visual corridors section of the Specific Plan deals with the establishment of visual corridors with Palos Verdes Drive identified as the primary visual corridor (refer to the *Existing Conditions* discussion and Exhibit 5.1-4, *Visual Corridors*). Building heights are restricted in visual corridors established by the Specific Plan to protect views from Palos Verdes Drive to significant land forms and ocean edges. View corridors providing a direct view, defined as a view within the primary cone of vision of a person driving along Palos Verdes Drive South at 45 miles per hour, are most restrictive in terms of height limitations. The view toward Point Fermin is considered significant and the Specific Plan restricts building heights to 16 feet. The following analysis evaluates the Project's potential to impact views from the Palos Verdes Drive South corridor.

Direct Full View of a Landmark (Marineland Tower). The vista with the former Marineland Park Tower as a structural focal point has changed as the Tower was removed after Marineland closed, and the remaining facilities are in a degraded state as a result of the closure (refer to Exhibit 5.1-9, *Photo Simulation 4*). Therefore, this would no longer be considered a vista with beneficial aesthetic value. Additionally the most prominent feature of the proposed development, the hotel/conference center complex would be located at the former tower site. All views to the hotel from Palos Verdes Drive South to this area would be maintained, with the intermediate ground being developed within specified height restrictions. All developed structures would be compatible in architectural style with the hotel, insuring a consistent aesthetic quality of the site.

Direct Full View of Point Fermin. This vista corridor has a much more narrow horizontal arc than the Catalina Island vista (see below), however, it has been designated a direct and full visibility vista corridor over its entire length as it traverses the Project site. Heights of proposed structures within the corridor, according to the Specific Plan, should be limited to 16 feet (Vertical Zone 1). The structures within the Vertical Zone 1 would include: The two easternmost east casitas, the Golf Clubhouse, the westernmost resort villas, tennis courts, parking lots and a majority of the golf course (refer to Exhibit 5.1-6, *Photo Simulation 1*, and Exhibit 5.1-7, *Photo Simulation 2*). The proposed Golf Clubhouse would be approximately 20 feet in height and the east casitas would be approximately 14 feet in height (one-story) to 26 feet in height (two-story). The resort villas would be approximately 26 feet in height. Some of these structures would exceed the 16-foot height limitation, while the remaining structures are within the height limitation. The obstruction of views to Point Fermin would be considered significant unless mitigated. It should be noted, however, that the Project as proposed only impacts the ocean in Point Fermin's foreground and would not obstruct any portion of the Point itself. Impacts would be reduced to less than significant levels with implementation of mitigation requiring that these buildings within the Point Fermin

vista corridor be one-story or redesigned to comply with the 16-foot height limit. Alternatively, in accordance with the City's Development Code, buildings in excess of 16 feet in height may be permitted pursuant to a Conditional Use Permit if the Planning Commission makes certain findings regarding the Project and its consistency with the Coastal Specific Plan, and other view policies as set forth in the Development Code.

Partial/Indirect View of Catalina Island. The viewing station of the Catalina Vista Corridor is an area located to the northeast of the property along Palos Verdes Drive (refer to Exhibit 5.1-9, *Photo Simulation 4*). The vista corridor has a horizontal arc of approximately 40 degrees, thus encompassing virtually the entire Project site. Only the northernmost resort villas proposed adjacent to Palos Verdes Drive South would be located in an area that would be restricted to the 16-foot height limitation. As proposed, these structures do not meet this requirement. The proposed resort villas would be approximately 26 feet in height. The remaining resort villas are located in an area with a 30 foot height restriction, however, these structures would not exceed this limitation. The remainder of the structures affected by this vista corridor, essentially all those located on the eastern half of the site, fall into Vertical Zone 3 and therefore may be more than 30 feet in height. None of the structures located in Vertical Zone 3, including the hotel, would diminish the integrity of the Catalina Vista Corridor from Palos Verdes Drive South (refer to Exhibit 5.1-5, *Photo Simulation 1*, Exhibit 5.1-6, *Photo Simulation 3*, and Exhibit 5.1-13, *Photo Simulation 8*). The obstruction of views to Catalina Island by the northernmost resort villas would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of mitigation requiring that these buildings be redesigned to comply with the 16-foot height limitation. Alternatively, in accordance with the City's Development Code, buildings in excess of 16 feet in height may be permitted pursuant to a Conditional Use Permit if the Planning Commission makes certain findings regarding the Project and its consistency with the Coastal Specific Plan, and other view policies as set forth in the Development Code.

LIGHT AND GLARE

5.1-5 *Development of the proposed Project may create a new source of light/glare which would adversely affect day or nighttime views in the area. Compliance with applicable City codes would reduce potential impacts to less than significant levels.*

Resort Hotel Area

The proposed Project may create light/glare impacts to off-site uses and introduce new sources of lighting into the Project area. These sources include lighting for street lights, entryway lights and interior building lighting. On-site light sources may also create spillover light impacts on surrounding land uses.

Light sources from on-site commercial sites have the potential to have a significant impact on adjacent residential areas. Street light illumination from the proposed RHA would be comparable to existing nearby residential developments to the east of the Project site. Additionally, refer to Section 5.3, *Biological Resources Indirect Impacts* for further discussion of associated light and glare impacts. Compliance with applicable City Development Code Section 17.56.040, as defined in the previous section, and the use of directional lighting techniques would reduce potential impacts to less than significant levels.

Upper Point Vicente Area

Limited light and glare is currently generated within the Project area primarily during the day from the City Hall complex. Residential safety-oriented exterior lighting from the Via Capri Condominiums occurs north of the Project area as well as lighting from the Golden Cove Shopping Center. No lighting of the golf course or practice facility is proposed; therefore, impacts are anticipated to be less than significant.

CUMULATIVE IMPACTS

5.1-6 *Project development, together with cumulative projects may result in greater urbanization in the Project area. Compliance with applicable City codes would reduce potential impacts to less than significant levels*

Construction of currently approved and pending projects in the vicinity would permanently alter the nature and appearance of the area through the loss of undeveloped areas. Security and street lighting would introduce light and glare potential to the area. Impacts are typically mitigated separately on a project by project basis. Cumulative impacts can be mitigated to less than significant levels with use of building materials that are consistent with the general character of the area, landscaping design, and proper lighting techniques to direct light on-site and away from adjacent properties.

The proposed Project would contribute to the cumulative loss of undeveloped land within the City of Rancho Palos Verdes. Further, redevelopment of the Marineland site would represent removal of a blight condition replacing it with a well designed manicured golf course and resort complex. Additionally, the UPVA would be more manicured, but would also be augmented with better quality and more attractive natural vegetation. Thus, the appearance of urbanization would be evident, but moderated due to the inclusion of the natural areas, and a less than significant impact would occur in this regard.

As development occurs throughout the City, residents and visitors in the area would notice the visual effects of urbanization. However, the significance of these visual/aesthetic changes is difficult to determine, since aesthetic value is subjectively determined and potential impacts are site-specific.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statement provided in the *Impacts* section.

SHORT-TERM IMPACTS

5.1-1 No mitigation measures are required. Also, refer to Mitigation Measure 5.1-4.

LONG-TERM IMPACTS

5.1-2 No mitigation measures are required.

RANCHO PALOS VERDES GENERAL PLAN

5.1-3 No mitigation measures are required.

RANCHO PALOS VERDES COASTAL SPECIFIC PLAN

5.1-4a The proposed Golf Clubhouse shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitations set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

5.1-4b The two easternmost casitas, as well as any and all tennis courts or other structures, shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitation set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

5.1-4c The resort Villa buildings shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within the horizontal limits of the Catalina View Corridor from Palos Verdes Drive South conform to the height restrictions set forth in the adopted Coastal Specific Plan - in particular that buildings in Height Zone 1 (closest to Palos Verdes Drive) do no exceed the 16-foot height limitation and those in Height Zone 2 do not exceed the 30-foot height limitations, so that the view of Catalina Island is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

LIGHT AND GLARE

5.1-5 No mitigation measures are required.

CUMULATIVE IMPACTS

5.1-6 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Aesthetics/Light and Glare have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.

LONG POINT RESORT
PROGRAM EIR

Key Map for Photo Simulations

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-5

Existing conditions

Proposed conditions

Photo taken from the off street trail adjacent to the seaward side of Palos Verdes Drive South, several hundred feet west of the Fisherman's access parking area, toward the Resort Hotel area. The viewpoint demonstrates that the proposed project would not impact views of Point Fermin from the pedestrian path or the east bound traffic lane.

LONG POINT RESORT EIR

Photo Simulation 1

RBF CONSULTING

Existing conditions

Proposed conditions

Photo taken from the southwestern corner of the Fisherman's Access Parking area toward the Resort Hotel Area. The viewpoint depicts new public parking on the left, Casitas in the middle and the new public park on the right.

LONG POINT RESORT EIR

Photo Simulation 2

Existing conditions

Proposed conditions

Photo taken from the off street trail on the seaward side of Palos Verdes Drive South at a point between the Fisherman's Access Area and the existing Long Point entrance toward the Resort Hotel.

Existing conditions

Proposed conditions

Photo taken from approximately 35 feet into the existing entrance to the project. Views of the proposed eastern Casitas area on the left, the ocean in the middle and the nearest Resort Villa on the right.

LONG POINT RESORT EIR

Photo Simulation 4

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-9

Existing conditions

Proposed conditions

Photo taken from the patio of a home north of Nantasket Drive looking toward the Resort Hotel Area.

LONG POINT RESORT EIR

Photo Simulation 5

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-10

Existing conditions

Proposed conditions

Photo taken from the sidewalk adjacent to Nantasket Drive looking toward the ocean views of the proposed eastern Casitas area.

LONG POINT RESORT EIR

Photo Simulation 6

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-11

Existing conditions

Proposed conditions

Photo taken from the Upper Point Vicente Area (UPVA) toward the Resort Hotel Area (RHA). Looking over golf hole on UPVA toward the RHA.

LONG POINT RESORT EIR

Photo Simulation 7

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-12

Existing conditions

Proposed conditions

Photo taken from the manhole near curb on the island side of Palos Verdes Drive South at a point between Fisherman's Access Parking Area and the existing Long Point entrance toward the Resort Hotel.

LONG POINT RESORT EIR

Photo Simulation 8

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-13

Existing conditions

Proposed conditions

Photo taken from the edge of the parking area behind City Hall looking north. Views of the proposed Golf Practice Facility, Lower Point Vicente Area, Oceanfront project and the ocean.

LONG POINT RESORT EIR

Photo Simulation 9

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-14

Existing conditions

Proposed conditions

Photo taken from the manhole at the tip of the cul de sac adjacent to Villa Capri and St. Pauls Church looking west. Views across the over Golf Practice Facility.

LONG POINT RESORT EIR

Photo Simulation 10

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-15

Existing conditions

Proposed conditions

Photo taken from a point adjacent to the fence at mid-point of Villa Capri homes. Views adjacent to the Golf Practice Facility to the tee area to the ocean.

LONG POINT RESORT EIR

Photo Simulation 11

RBF CONSULTING

JN 10-034194-7978 • 10/00

Exhibit 5.1-16

5.2 AIR QUALITY

This Section evaluates air quality associated with short and long-term impacts resulting from buildout of the Long Point Resort Project. Information in this Section is based primarily on the *CEQA Air Quality Handbook*, prepared by the South Coast Air Quality Management District (SCAQMD), April 1993 (as revised through November 1993), Air Quality Data (SCAQMD 1994 through 1998); and the SCAQMD *Final Air Quality Management Plan* (January 1997).

EXISTING CONDITIONS

SOUTH COAST AIR BASIN

The City of Rancho Palos Verdes is located in the South Coast Air Basin (Basin), characterized as having a "Mediterranean" climate (a semi-arid environment with mild winters, warm summers and moderate rainfall). The Basin is a 6,600-square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. Its terrain and geographical location determine the distinctive climate of the Basin, as the Basin is a coastal plain with connecting broad valleys and low hills.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

Climate

The climate is characterized by moderate temperatures and comfortable humidities with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit. However, with a less pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100 degrees in recent years. January is usually the coldest month at all locations while July and August are usually the hottest months of the year. Although the Basin has a semi-arid climate, the air near the surface is moist because of the presence of a shallow marine layer. Except for infrequent periods

when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods with heavy fog are frequent; and low stratus clouds, occasionally referred to as “high fog” are a characteristic climate feature. Annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation is typically 9 to 14 inches annually in the Basin and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall is greater in the coastal areas of the Basin.

Wind

One of the most important climatic factors is the direction and intensity of the prevailing winds. With very light average wind speeds (five to seven miles per hour), the Basin has a limited capability to disperse air contaminants horizontally. Typically, the net transport of air on-shore is greater in the summer, while the net off-shore transport is greater in the winter. Whether there is air movement or stagnation during the morning and evening hours (before these dominant patterns take effect) is one of the critical factors in determining the smog situation on any given day.

Rancho Palos Verdes’ location with respect to these flow patterns and the Pacific Ocean results in relatively good air quality. For the most part, the on-shore winds transport pollutants farther inland, away from the City. Since the night drainage winds are less intense, only a limited amount of this pollution is returned during the summer.

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original, or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California. However, Rancho Palos Verdes and other coastal cities are not exempt on those days with early morning easterly winds.

Temperature Inversions

A temperature inversion is a reversal in the normal decrease of temperature as altitude increases. In most parts of the country, air near ground level is warmer than the air above it. However, Southern California's daily summertime sunshine and high barometric pressure reverse that pattern, creating warmer air at high elevations which trap pollutants by preventing cooler air from rising to the upper atmosphere. The height of the base of the inversion is known as the "mixing height" and controls the volume of air available for the mixing and dispersion of air pollutants.

The interrelationship of air pollutants and climatic factors are most critical on days of greatly reduced atmospheric ventilation. On days such as these, air pollutants accumulate because of the simultaneous occurrence of three unfavorable factors: low inversions, low maximum mixing heights and low wind speeds. Although these conditions may occur throughout the year, the months of July, August, and September generally account for more than 40 percent of these occurrences.

The potential for high contaminant levels varies seasonally for many contaminants. During late spring, summer and early fall, light winds, low mixing heights and sunshine combine to produce conditions favorable for the maximum production of oxidants, mainly ozone. When fairly deep marine layers frequent the Basin during spring and summer, sulfate concentrations achieve yearly peak concentrations. When strong surface inversions are formed on winter nights, especially during the hours before sunrise, coupled with near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. The highest yearly concentrations of carbon monoxide, oxides of nitrogen and nitrates are measured during November, December and January.

AMBIENT AIR QUALITY STANDARDS

Air Quality Standards

Ambient air quality is described in terms of compliance with Federal and State standards. Ambient air quality standards are the levels of air pollutant concentration considered safe to protect the public health and welfare. They are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. National Ambient Air Quality Standards (NAAQS) were established by the United States (U.S.) Environmental Protection Agency (EPA) in 1971 for six air pollutants. States have the option of adding other pollutants, to require more stringent compliance, or to include different exposure periods. California Ambient Air Quality Standards (CAAQS) for these pollutants and NAAQS are included in Table 5.2-1, *Local Air Quality Levels*.

The California Air Resource Board (CARB) is required to designate areas of the State as attainment, non-attainment, or unclassified for any State standard. An “attainment” designation for an area signifies that pollutant concentrations did not

TABLE 5.2-1
LOCAL AIR QUALITY LEVELS

Pollutant	California Standard	Federal Primary Standard	Year	Maximum[1] Concentration		Days (Samples) State/Federal Std. Exceeded	
				Long Beach	Hawthorne	Long Beach	Hawthorne
Carbon Monoxide	9.0 ppm for 8 hour	9.0 ppm for 8 hour	1994 1995 1996 1997 1998	8.9 6.6 6.9 6.7 6.6	12.0 8.9 11.6 10.3 9.4	0/0 0/0 0/0* 0/0 0/0	8/5 0/0 6/5* 1/1 1/0
Ozone	0.09 ppm for 1 hour	0.12 ppm for 1 hour	1994 1995 1996 1997 1998	0.16 0.11 0.11* 0.10 0.12	0.11 0.12 0.13 0.11 0.09	6/1 3/0 5/0* 1/0 2/0	3/0 3/0 8/1 6/3 0/0
Nitrogen Dioxide	0.25 ppm for 1 hour	0.053 ppm annual average	1994 1995 1996 1997 1998	0.20 0.21 0.17* 0.20 0.16	0.22 0.18 0.15 0.17 0.15	0/0 0/0 0/0* 0/0 0/0	0/0 0/0 0/0 0/0 0/0
Sulfur Dioxide	0.25 ppm for 1 hour	0.14 ppm for 24 hours or 0.03 ppm annual arithmetic mean	1994 1995 1996 1997 1998	0.04 0.14 0.04* 0.04 0.08	0.04 0.06 0.06 0.10 0.03	0/0 0/0 0/0* 0/0 0/0	0/0 0/0 0/0 0/0 0/0
Fine Particulate Matter	50 ug/m^3 for 24 hours	150 ug/m^3 for 24 hours	1994 1995 1996 1997 1998	97 146 113* 87 69	81 136 107 79* 66	(11/0) (11/0) (7/0)* (10/0) (6/0)	(11/0) (8/0) (5/0) (4/0)* (7/0)`

* Denotes Less Than 12 Months of Monitoring in Given Year.

PPM = Parts Per Million
Ug/m^3 = Micrograms Per Cubic Meter
N/M = Not Measured

PM_{10} = Samples Were Collected Every Six Days

Notes:

1 Maximum concentrations Is measured over the same period as the California Standard.

Source: Data Obtained From The South Coast Air Quality Management District, 1994 to 1998.

violate the standard for that pollutant in that area. A "non-attainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that the data does not support either an attainment or non-attainment status.

State and Federal ambient air quality standards have been established for the following pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), fine particulate matter (PM_{10}) and lead. For some of these pollutants, notably O_3 and PM_{10} the State standards are more stringent than the Federal standards. The State has also established ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride and particulate matter. The above-mentioned pollutants are generally known as "criteria pollutants."

The U.S. EPA in 1997 announced new ambient air quality standards for O_3 and PM_{10}. The new standards were intended to provide greater protection of public health. EPA proposed to phase out the 1-hour O_3 standard and replace it with an 8-hour standard. With respect to PM_{10}, EPA proposed a new standard for the smaller particles, $PM_{2.5}$, or particulates less than 2.5 microns in diameter. The new $PM_{2.5}$ standards included an annual standard and a 24-hour standard.[1] Following announcement of the new national standards, the SCAQMD began collecting monitoring data to determine the region's attainment status with respect to the new standards. Industry groups challenged the new standards in court, but as of May 2000, the status of the new standards was uncertain.

Attainment Status

Despite implementing many strict controls, the SCAQMD portion of the Basin still fails to meet the Federal air quality standards for three of the six criteria pollutants: O_3, CO and PM_{10}. For State standards, the Los Angeles County portion of the Basin is also designated as non-attainment for O_3, CO and PM_{10}.[2]

[1] There are two new Federal $PM_{2.5}$ standards: a 24-hour limit set at 65 micrograms per cubic meter (mg/m^3) of ambient air and an annual average limit set at 15 mgm^3. The current PM_{10} standards will be retained. Areas will be considered in attainment for the annual $PM_{2.5}$ standard when the three-year average of the annual arithmetic mean is equal to or less than $15ug/m^3$. For the new 24-hour standard, attainment will be based on the 98th percentile of PM2.5 concentrations for each year, averaged over three years, to help compensate for any high concentrations that may be due to unusual meteorological conditions.

[2] Obtained from the California Air Resources Board Website updated November 19, 1999.

Local Ambient Air Quality

The SCAQMD operates several air quality monitoring stations within the Basin. The project site is located within Source Receptor Area (SRA) 3. The communities within an SRA are expected to have similar climatology and subsequently, similar ambient air pollutant concentrations. The Hawthorne Monitoring Station is the nearest station to the project site within SRA 3. However, the Long Beach Monitoring Station is expected to represent some aspects of the project area air quality better than the Hawthorne Station with its position on the coast. Due to it's location on the Palos Verdes Peninsula, the project site is expected to experience the best air quality represented at each of these stations. The following air quality information briefly describes the various types of pollutants monitored at these stations.

Ozone. Ground-level ozone, often referred to as smog, is not emitted directly, but is formed in the atmosphere through complex chemical reactions between NO_X and reactive organic gases (ROG) in the presence of sunlight. The principal sources of NO_X and ROG, often termed ozone precursors, are combustion processes (including motor vehicle engines) and evaporation of solvents, paints and fuels. Motor vehicles are the single largest source of O_3 precursor emissions in the SCAQMD. Exposure to O_3 can cause eye irritation, aggravate respiratory diseases and damage lung tissue, as well as damage vegetation and reduce visibility. The entire Basin is designated as a non-attainment area for State and Federal O_3 standards.

Carbon Monoxide. CO is an odorless, colorless toxic gas that is formed by the incomplete combustion of fuels. Motor vehicles are by far the largest source of CO in the Basin. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, unconsciousness, and even death. CO also and aggravate cardiovascular disease. The Los Angeles County portion of the Basin is designated as a non-attainment area for both State and Federal CO standards.

Nitrogen Dioxide. NO_2, often used interchangeably with NO_X, is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations) in the vicinity. The entire Basin is designated as an attainment area for State NO_2 standards and Unclassified/Attainment for Federal standards (re-designated from non-attainment on July 24, 1998).

Fine Particulate Matter. Fine particulate matter (PM_{10}, or particulate matter less than 10 microns in diameter) includes a wide range of solid or liquid particulates, including smoke, dust, aerosols and metallic oxides. There are many sources of PM_{10} emissions, including combustion, industrial processes, grading and construction, and motor vehicles. Of the PM_{10} emissions associated with motor

vehicle use, some are tailpipe and tire wear emissions, but greater quantities are generated by resuspended road dust. Consequently, improvements in motor vehicle engines and fuels have not reduced PM_{10} emissions as significantly as they have reduced emissions of other pollutants. Reductions in motor vehicle use are needed to significantly reduce PM_{10} emissions from resuspended road dust. Research has also shown that wood burning in fireplaces and stoves is a significant source of PM_{10}, particularly during episodes when PM_{10} levels are at their highest.

Fine particulate matter is of concern because it can bypass the body's natural filtration system more easily than larger particles, and can lodge deeply into the lungs. Health effects of PM_{10} vary depending on a variety of factors, including the type and size of particle. Elevated PM_{10} concentrations can also aggravate chronic respiratory illness such as bronchitis and asthma. The Basin is designated as non-attainment for State and Federal PM_{10} standards.

Sulfur Dioxide and Lead. Sulfur dioxide (SO_2), often used interchangeably with sulfur oxides (SO_X), and lead (Pb) levels in all areas of the Basin do not exceed Federal or State standards. The Basin is designated as attainment for both State and Federal SO_2 standards. There is no NAAQS for lead.

REGULATORY FRAMEWORK

Federal Clean Air Act

The 1970 Clean Air Act (CAA) authorized the establishment of the NAAQS, and set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 made major changes in deadlines for attaining NAAQS and in the actions required of areas of the nation that exceeded these standards.

California Clean Air Act

The 1988 California Clean Air Act (CCAA) requires that all air districts in the State endeavor to achieve and maintain CAAQS for O_3, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources. The Act also gives districts new authority to regulate indirect sources. Each district plan is to achieve a five percent annual reduction (averaged over consecutive three-year periods) in district-wide emissions of each non-attainment pollutant or its precursors.

South Coast Air Quality Management District (SCAQMD)

The SCAQMD has prepared multiple Air Quality Management Plans (AQMPs) to accomplish the five percent annual reduction goal. The most recent AQMP was published in 1997. To accomplish its task, the AQMP relies on a multi-level partnership of governmental agencies at the Federal, State, regional and local level. These agencies, which include EPA, CARB, local governments, Southern California Association of Governments (SCAG) and the SCAQMD, are the cornerstones that implement the AQMP programs.

1997 AQMP. A 1997 AQMP was prepared and adopted by the SCAQMD on November 15, 1996. The 1997 AQMP was adopted by CARB on January 23, 1997. The 1997 Plan contains two tiers of control measures: short- and intermediate-term, and long-term. Short- and intermediate-term measures are scheduled to be adopted between 1997 and the year 2005. These measures rely on known technologies and other actions to be taken by several agencies that currently have the statutory authority to implement the measures. They are designed to satisfy the Federal CAA requirement of Reasonably Available Control Technology (RACT) and the CCAA requirement of Best Available Retrofit Control Technology (BARCT). There are 37 stationary source and 24 mobile source control measures in this group.

The 1997 AQMP continues to include most of the control measures outlined in the previous 1994 Ozone Plan with minor exceptions, but postpones many marginal measures found to be less cost-effective, drops future indirect-source rules that are now deemed infeasible, and focuses the SCAQMD's efforts on about ten major emission-reduction rules. The SCAQMD will focus its efforts on seven major rules to reduce volatile organic compounds (VOCs), a key ingredient in smog; and the Plan includes new market-based measures giving businesses greater flexibility in meeting emission-reduction requirements, such as intercredit trading and additional credits for mobile source emission reductions.

The 1997 AQMP shows that measures outlined in the 1994 Ozone Plan are sufficient to attain the Federal health standards for the two most difficult ingredients in smog, PM_{10} and ground level O_3, by the years 2006 and 2010, respectively. The region already has met the three other Federal health standards for Pb, SO_2 and NO_2.

To help reduce PM_{10} pollution, the 1997 Plan outlines seven control measures for directly emitted particulates which will reduce emissions from agricultural areas, livestock waste, wood-working operations, construction, and restaurants. The measures will also help control dust from paved and unpaved roads, which accounts for two thirds of the directly-emitted particulates.

The 1997 Plan shows that both emissions and ambient pollution levels have continued their downward path toward healthful levels. The number of Stage I

smog episodes for O_3 declined from 41 days in 1990 to just 14 days in 1995. CO also has declined, with the number of days over the standard down from 42 in 1990 to 13 in 1995. The average number of days exceeding the Federal 24-hour PM_{10} standard also declined between 1990 and 1995 by 9 percent.[3]

The 1997 AQMP Control Strategies. The 1997 AQMP's off-road mobile source control measures are based on the EPA's proposed Federal Implementation Plan (FIP) for the Basin. The FIP's proposed control measures are based on a combination of stringent emission standards, declining caps on emission levels and emission/user fees.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern in Southern California. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. Health effects of TACs include cancer, birth defects, neurological damage and death.

The SCAQMD implements TAC controls through Federal, State and local programs. Federally, TACs are regulated by EPA under Title III of the CAA. At the State level, the CARB has designated the Federal hazardous air pollutants as TACs, under the authority of AB 1807. The Air Toxic Hot Spots Information and Assessment Act (AB 2588) requires inventories and public notices for facilities that emit TACs. Senate Bill 1731 amended AB 2588 to require facilities with "significant risks" to prepare a risk reduction plan (reflected in SCAQMD Rule 1402). SCAQMD also regulates source-specific TACs.

Diesel exhaust is a growing concern in the Basin area and throughout California. The CARB in 1998 identified diesel engine particulate matter as a TAC. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to the particles, and because diesel particles are very small, they penetrate deeply into the lungs. Diesel engine particulate matter has been identified as a human carcinogen. Mobile sources (including trucks, buses, automobiles, trains, ships and farm equipment) are by far the largest source of diesel emissions. Studies show that diesel particulate matter concentrations are much higher near heavily traveled highways and intersections. The cancer risk from exposure to diesel exhaust may

[3] Article entitled "AQMD Sees Progress in Attaining Federal Clean Air Standards," AQMD Advisor, Volume 3, Number 7, September 1996.

be much higher that the risk associated with any other toxic air pollutant routinely measured in the region.[4]

Prior to the listing of diesel exhaust as a TAC, California had already adopted various regulations that would reduce diesel emissions. These regulations include new standards for diesel fuel, emission standards for new diesel trucks, buses, autos, and utility equipment, and inspection and maintenance requirements for health duty vehicles. Following the listing of diesel engine particulate matter as a TAC, ARB is currently evaluating what additional regulatory action is needed to reduce public exposure. ARB does not plan on banning diesel fuel or engines. ARB may consider additional requirements for diesel fuel and engines, however, as well as other measures to reduce public exposure.

Other air quality issues of concern in the Basin include nuisance impacts of odors and dust. Objectionable odors may be associated with a variety of pollutants. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. Similarly, nuisance dust may be generated by a variety of sources including quarries, agriculture, grading and construction. Odors rarely have direct health impacts, but they can be unpleasant and can lead to anger and concern over possible health effects among the public. Each year, the SCAQMD receives thousands of citizen complaints about objectionable odors. Dust emissions can contribute to increased ambient concentrations of PM_{10}, particularly when dust settles on roadways where it can be pulverized and re-suspended by traffic. Dust emissions also contribute to reduced visibility and soiling of exposed surfaces.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than are the general population. Sensitive populations (sensitive receptors) who are in proximity to localized sources of toxics and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent center, and retirement homes.

Existing sensitive receptors within the vicinity of the Upper Point Vicente Area (UPVA) include residential uses to the north (both north and south of Hawthorne Boulevard), and northeast of the area. Sensitive receptors currently are not located along Palos Verdes Drive West and South adjacent to the proposed UPVA.[5] Near

[4] BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans, Bay Area Air Quality Management District, Revised December 1999, page 6.

[5] It should be noted that a Montessori School has been approved in the undeveloped property situated adjacent to St. Pauls Lutheran Church (north of the UPVA).

the proposed Resort Hotel Area (RHA), sensitive receptors include the Salvation Army Regional Training Center and several residences to the north of Palos Verdes Drive South, and residences directly to the east.

IMPACTS

Significance Criteria

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts which are identified. The criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project. Air quality impacts resulting from the implementation of the proposed Long Point project could be considered significant if they cause any of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement 5.2-3);
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation (refer to Impact Statements 5.2-1 and 5.2-2);
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)(refer to Impact Statement 5.2-4);
- Exposes sensitive receptors to substantial pollutant concentrations (refer to Impact Statement 5.2-2); and/or
- Create objectionable odors affecting a substantial number of people (refer to Section 7.0, *Effects Found Not To Be Significant*).

The *SCAQMD CEQA Air Quality Handbook* establishes thresholds for pollutant emissions generated both during and following construction. Buildout of the project would be required to implement control measures during construction activities in order to reduce the amount of emissions to below the significance thresholds, when possible. SCAQMD construction and operation thresholds are indicated in Tables 5.2-2 and 5.2-4, respectively. As previously stated, the Basin (Los Angeles County portion) is designated non-attainment for State and Federal standards for O_3, CO, and PM_{10}. Any increase in these pollutants would create a significant and unavoidable air quality impact.

SHORT-TERM AIR QUALITY IMPACTS

5.2-1 *Significant short-term air quality impacts may occur during site preparation and project construction. These impacts are considered significant before and after mitigation for NO_X emissions from construction equipment exhaust and significant before and after mitigation for PM_{10} fugitive dust. Impacts would be less than significant for other pollutants. (Mitigation in this instance refers to applicable City Development Code Sections and SCAQMD Rules.)*

Short-term air quality impacts would occur during grading and construction activities associated with implementation of the proposed project. These temporary impacts would include:

- Particulate (fugitive dust) emissions from clearing and grading activities on-site;
- Exhaust emissions and potential odors from the construction equipment used on-site as well as the vehicles used to transport materials to and from the site;
- Off-site air pollutant emissions at the power plant serving the site, while temporary power lines are needed to operate construction equipment and provide lighting; and
- Exhaust emissions from the motor vehicles of the construction crew.

The above described power plant and vehicle emissions are generated during construction activities. However, emissions from these sources would continue after project completion as a result of long-term electricity consumption and traffic generated by the proposed land uses. Project-related power plant and motor vehicle emissions are further analyzed in the long-term impacts portion of this Section.

It should be noted that emissions produced during grading and construction activities are “short-term” in nature as they endure only for the duration of construction.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust (PM_{10}) emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project vicinity. Fugitive dust emissions are associated with land clearing, ground excavation, cut and fill operations, and truck travel on unpaved roadways. Dust emissions also vary

substantially from day to day, depending on the level of activity, the specific operations, and weather conditions.

Fugitive dust from grading and construction is expected to be short-term and would cease following project completion. Additionally, most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health. Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of a particular health concern is the amount of PM_{10} (particulate matter smaller than 10 microns) generated as a part of fugitive dust emissions. As previously discussed, PM_{10} poses a serious health hazard, alone or in combination with other pollutants. The URBEMIS7G computer model calculates PM_{10} fugitive dust as part of the site grading emissions (refer to Table 5.2-2, below). Even with implementation of City Code 17.56.020 and 17.76.040(G)(4) regarding dust control techniques (daily watering, covering of trucks, etc.), limitations on construction hours, and installation of temporary construction fencing, and adherence to SCAQMD Rule 403 (requires watering for inactive and perimeter areas, track out requirements, etc.), impacts from PM_{10} fugitive dust would remain a significant impact.

Construction Equipment and Worker Vehicle Exhaust
(Significant after mitigation for NO_x emissions)

Exhaust emissions from demolition and construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting excavated materials from the site. Emitted pollutants would include CO, ROG, NO_X, and PM_{10}.

Table 5.2-2, *Construction Emissions*, presents exhaust emission factors for typical diesel-powered heavy equipment. Refer to Table 5.2-3, *Air Quality Construction Emissions*, for a listing of mobile and stationary construction equipment included in

TABLE 5.2-2
CONSTRUCTION EMISSIONS

Emissions Source	Pollutant (pounds/day)[1]			
	ROG	NOX	CO	PM10
Unmitigated Emission[2]	44.62	452.83	16.64	607.90
SCAQMD Threshold	55	55	550	150
Is Threshold Exceeded Before Mitigation?	No	Yes	No	Yes
Mitigated Emissions	42.84	433.44	16.64	237.79
Is Threshold Exceeded After Mitigation?	No	Yes	No	Yes

ROG = reactive organic gases NOX = nitrogen oxides
CO = carbon monoxide PM10 = fine particulate matter

NOTES:

[1] Emissions calculated using the URBEMIS7G Computer Model as recommended by the SCAQMD and Table A9-3 of the Air Quality Handbook for Preparing EIRs.

[2] Calculations include emissions from numerous sources including: demolition of several on-site structures, site grading, construction worker trips, stationary equipment, diesel mobile equipment, and asphalt off-gassing. Results are based on the maximum amount of demolition, aggregate crusher, site grading, construction and asphalt activity that would occur in one day.

[3] Refer to Appendix 15.2, *Air Quality Data*, for assumptions used in this analysis, including quantified emissions reduction by mitigation measures. Emissions would also exceed the SCAQMD quarterly construction emissions for NOX and PM10.

TABLE 5.2-3
AIR QUALITY CONSTRUCTION EMISSIONS

Equipment Type	No. of Pieces	Hours/Day
Site Grading Equipment		
Tractor	4	8
Scraper	6	8
Wheeled Dozer	2	8
Wheeled Tractor	2	8
Motor Grader	2	8
Miscellaneous - Water Truck	2	8
Mobile Construction Equipment		
Fork Lift 175 HP	2	8
Track Tractor	2	8
Wheeled Dozer	1	8
Wheeled Loader	1	8
Motor Grader	1	8
Miscellaneous	2 - 3 pick-up (average 3-4 hours each during 8-hour period	
Data provided by Project Applicant in October 2000.		

this emissions analysis. Exhaust emissions would vary substantially from day to day. The numerous variables factored into estimating total demolition, site grading and construction emissions include: level of activity, length of construction period, number of pieces and types of equipment in use for each activity combined construction emissions, site characteristics, weather conditions, number of construction personnel, and amount of materials to be transported on/off site.[6]

It should be noted that a portable aggregate crusher operation is proposed in the "bowl" in the existing terrain on the southern portion of the Resort Hotel Area. This area would accommodate the crusher operation, raw materials, bag houses and emission controls. The aggregate crusher and conveyor belt system would be powered by a 700 horse-power generator which would operate ten hours per day. A wheeled loader and bobcat also would be in operation in the crusher area. Pollutant emissions from the crusher operations are included in Table 5.2-2.
As indicated in Table 5.2-2, emissions associated with demolition and construction equipment within the project area are anticipated to exceed SCAQMD construction thresholds. Feasible mitigation measures are not available to reduce the significance of short-term construction NO_X and PM_{10} emissions to less than significant levels. As such, these impacts would be considered significant and unavoidable.

LONG-TERM OPERATIONAL IMPACTS

5.2-2 *The project may result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from electricity and natural gas consumption. This impact is considered significant and unmitigable for ROG, CO, and NO_X emissions and less than significant for emissions of other pollutants.*

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic and stationary source emissions generated directly from the natural gas consumed and indirectly from the power plant providing electricity to the project site. Emissions associated with each of these sources are discussed and calculated below.

[6]Construction emissions were based on the following construction assumptions provided by the project applicant: 150,000 maximum volume to be demolished/day including concrete buildings, wood buildings, and reinforced tanks; 20 days total for building demolition; 50 acres maximum to be graded/day; 120 total working days for site grading activities; 9 acres paving/day for maximum of 20 days; to be constructed in 2001-02 with construction completed in 375 days.

Mobile Source Emissions: Regional Impacts
(Significant for ROG, CO and NO_X emissions)

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, and PM_{10} are all pollutants of regional concern. (NO_X and ROG react with sunlight to form O_3 or photochemical smog, and SO_X and PM_{10} are readily transported by wind currents). However, CO tends to be a localized pollutant, dispersing rapidly at the source. Long-term impacts to regional air quality levels are analyzed below.

As previously discussed, the Los Angeles County portion of the Basin is a non-attainment area for Federal and State air quality standards for CO, O_3 and PM_{10}. Nitrogen oxides and ROG are regulated O_3 precursors. (A precursor is defined as a directly emitted air contaminant that, when released into the atmosphere, forms or causes to the formed or contributes to the formation of a secondary air contaminant for which an ambient air quality standard has been adopted...). Project-generated vehicle emissions have been estimated using the URBEMIS7G model. This model predicts ROG, CO, NO_X, and PM_{10} emissions from motor vehicle traffic associated with new or modified land uses (refer to Appendix 15.2, *Air Quality Data*, for model input values used for this project with the model output). Project trip generation rates were based on the Project Traffic Study (refer to Section 5.12, *Traffic and Circulation*, and Appendix 15.12, *Traffic Impact Analysis*). Table 5.2-4, *Long-Term Project Emissions*, presents regional mobile emissions anticipated with project buildout.

As shown in Table 5.2-4, emissions generated by the project at buildout would result in criteria pollutants exceeding the SCAQMD's thresholds for ROG, NO_X and CO.

Area Source Emissions

The proposed project would generate electrical demand and heating demands resulting in natural gas combustion. Electrical demand would result in electrical generation emissions from local power plants. As indicated in Table 5.2-4, *Long-Term Project Emissions*, stationary source emissions generated directly from the natural gas consumed and indirectly from the power plant providing electricity to the project site at buildout would not individually exceed SCAQMD thresholds, but when combined with vehicular emissions would cause operational emissions to exceed SCAQMD thresholds for ROG, NO_X and CO.

TABLE 5.2-4
LONG-TERM PROJECT EMISSIONS[1]
(Project Buildout)

	Pollutant (Pounds/Day)			
	ROG	**NO_X**	**CO**	**PM_{10}**
Project Buildout (unmitigated) • Area Source Emissions • Vehicle Emissions	 9.96 98.42	 4.93 148.99	 6.82 762.42	 0.02 45.64
Total Unmitigated Emissions	108.38	153.92	769.24	45.66
SCAQMD Threshold	55	55	550	150
Is Threshold Exceeded? (Significant Impact?)	Yes	Yes	Yes	No

1. Based on URBMIS7G modeling results for opening year 2002, worst-case summer emissions for area emissions and winter worst-case for mobile emissions, and trip rate data provided in the project Traffic Study.

ROG = reactive organic gases
NO_X = nitrogen oxides
CO = carbon monoxide
PM_{10} = fine particulate matter

Total Project Operational Emissions

As shown in Table 5.2-4, the mobile source and area emissions associated with the proposed project would generate pollutant emissions in excess of SCAQMD thresholds. Thus, implementation of the proposed project would create a significant and unavoidable individual project impact from ROG, NO_X and CO emissions. In addition, the Basin is in non-attainment for these same three pollutants. As the proposed project would exceed established ROG/NO_X, CO and PM_{10} thresholds, the project would create a significant and unavoidable *cumulative* impact to regional levels of these pollutants (refer to cumulative discussion below).

Localized CO Emissions

According to the *SCAQMD CEQA Air Quality Handbook*, localized concentration modeling for CO should be accomplished for projects whose associated traffic would negatively impact levels of service (LOS) at locations adjacent to sensitive receptors. In these instances, a localized CO hotspot (i.e., an exceedance of established State and/or Federal standard) may be created at specific intersections. According to the project Traffic Impact Analysis (refer to Appendix 15.12, Tables 4, 5 and 9), existing plus ambient growth (with and without project) and existing plus ambient growth plus other development (with and without project), no intersections would experience a change in LOS from D to E or from E to F under project

conditions. According to Table 9 of the Traffic Impact Analysis, under existing plus ambient growth plus proposed project plus other development conditions, the proposed project would create a significant traffic impact at three intersections without mitigation (although LOS would not be changed from D to E, or from E to F at these locations). Upon implementation of mitigation measures recommended in the Traffic Impact Analysis, however, impacts would be reduced to a less than significant level and intersections would operate at acceptable LOS and intersections would not be significantly impacted by project generated traffic. As such, the project is not anticipated to create a significant localized emission of CO or create significant localized impacts to nearby sensitive receptors in this regard.

CONSISTENCY WITH AIR QUALITY MANAGEMENT PLAN

5.2-3 *The project may be in conflict with the AQMP and RCPG. A significant unavoidable impact is anticipated in this regard.*

As noted above under the Significance Criteria discussion, a potentially significant impact to air quality would occur if the project would conflict with or obstruct the implementation of the applicable air quality plan. Although the project would represent an incremental negative impact to air quality in the Basin, of primary concern is that project-related impacts have been properly anticipated in the regional air quality planning process and reduced whenever feasible. Therefore, it is necessary to assess the project's consistency with the AQMP.

SCAG is responsible under the Federal CAA for determining conformity of projects, plans and programs with the SCAQMD AQMP. SCAG released the Regional Comprehensive Plan and Guide (RCPG), in May 1995. The RCPG is a compilation of the summaries of Plans for the Southern California Region. It establishes a broad set of goals for the region, and identifies strategies for agencies at all levels to use in guiding their decision-making toward implementation of the proposals.[7] The Growth Management and Regional Mobility Chapters contain policies to help guide local agencies in developing a more balanced number of houses and jobs.

Prior to adoption of the RCPG, formal AQMP Conformity Review Procedures were provided by SCAG for local agencies to follow when determining consistency of projects with the AQMP. These guidelines were primarily based on a project's influence on the subregional jobs/housing balance. Since adoption of the RCPG, SCAG released the Intergovernmental Review Procedures Handbook dated June 1, 1995, which states that project consistency with the RCPG policies, particularly the core chapters, should be analyzed to determine project consistency with

[7] *Regional Comprehensive Plan and Guide*, Southern California Association of Governments, May 1995, page 1.

regional growth and air quality documents. Core chapters include Growth Management, Regional Mobility, Air Quality, Hazardous Waste and Water Quality.

Policies within these chapters of the RCPG are aimed at SCAG's overall goals to: 1) reinvigorate the region's economy, 2) avoid social and economic inequities and the geographical isolation of communities and 3) maintain the region's quality of life. Selected policies include the following:

- "SCAG shall encourage existing or proposed local jurisdictional programs aimed at designing land uses which encourage the use of transit and thus reduce the need of roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk or bike."

- "SCAG shall encourage local jurisdictional plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment."

- "SCAG shall support local plans to increase density of future development located at strategic points along the regional commuter rail, transit centers and activity centers."

- "SCAG shall encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment."

Although air quality is a regional problem, SCAG's RCPG and SCAQMD's AQMP place a heavy reliance on local implementation measures, such as land use decisions and local employment transportation programs. The implementation process stresses the freedom of cities to choose attainment measures that best suit local conditions.

As indicated in SCAQMD's *CEQA Air Quality Handbook*, there are two main indicators of consistency:

- Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and

- Whether the project would exceed the AQMP's assumptions for 2010 or increments based on the year of project build-out and phase.

The proposed development would be consistent with one of the two indicators of consistency. In 1991, the Resort Hotel Area received City and Coastal development

entitlements, including a Conditional Use Permit (CUP) and Coastal Development Permit (CDP) to allow construction of a 400-room hotel, 50 casitas units (keyable to 150 units), a 9-hole golf course, and various commercial and visitor-serving facilities (refer to Section 5.7, *Land Use and Relevant Planning*, for further details regarding the existing entitlement). As explained in Section 3.2, *Background and History*, the CUP and CDP were extended at the request of the current landowner through September 11, 2001 and remain viable and independent of the current proposed project. The existing entitlement project would generate a total of approximately 9,619 average daily trips (ADT).[8] In contrast, the currently proposed development would generate 6,263 ADT (refer to Section 5.12, *Traffic and Circulation*). Thus, the volume of ADT generated by the current proposal would not exceed the ADT projected for the existing entitlement. The proposed project would not exceed the AQMP's assumptions, thus, would be considered consistent with the AQMP in this regard.

The project would result in an increase in the severity of existing air quality violations. The Basin is presently in non-attainment for ROG, NO_x and CO emissions. As indicated in Table 5.2-4, the mobile source and area emissions associated with the proposed project would generate pollutant emissions in excess of SCAQMD thresholds. This increase in the severity of the existing violations would make the proposed development inconsistent with one of the two indicators of consistency. Project implementation would result in a significant unavoidable impact with respect to consistency with the AQMP.

CUMULATIVE IMPACTS

5.2-4 *Impacts to regional air quality resulting from development of cumulative projects may significantly impact existing air quality levels. Impacts would be significant and unavoidable for ROG, CO, NO_X and PM_{10} emissions.*

The annual short-term and long-term emissions associated with the cumulative projects indicated in Section 4.0, *Cumulative Projects*, would be dependent on the phasing of each project. Adherence to SCAQMD rules and regulations would help to alleviate these impacts. However, the build out, sale and occupancy of the dwelling units and other uses would be controlled by market demand. Emission reduction technology, strategies and plans are constantly being developed. As discussed in Impact Discussion 5.2-4, above, since the Basin is non-attainment for O_3, CO and PM_{10} air quality standards (both State and Federal standards), additional emissions of ROG and NO_X (precursors to O_3), CO and PM_{10} would be considered significant and unavoidable cumulative impacts. Additionally, it should be noted that Cumulative Projects include development of a sensitive receptor adjacent to the UPVA (i.e., Montessori School). However, traffic impacts under

[8] Estimate derived based upon data provided in the Draft EIR for the Long Point Master Plan Development (Myra L. Frank & Associates, June 1989, page 2-54) and existing entitlement data provided by the City..

existing plus ambient growth plus proposed project plus other development conditions would not create a significant localized emission of CO or create significant localized impacts to the proposed school.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements provided in the impacts Subsection for the proposed project:

SHORT-TERM AIR QUALITY IMPACTS

5.2-1 Additional measures beyond adherence to City Development Code and SCAQMD Rules are not required.

LONG TERM OPERATIONAL IMPACTS

5.2-2 No mitigation measures are available.

CONSISTENCY WITH AIR QUALITY MANAGEMENT PLAN

5.2-3 No mitigation measures are available.

CUMULATIVE IMPACTS

5.2-4 SCAQMD Standards and City Municipal Code requirements would be implemented on a project-by-project basis.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The following air quality impacts would remain significant and unavoidable following mitigation:

- NO_X and PM_{10} fugitive dust emissions from construction activities;
- ROG, CO, PM_{10}, NO_X emissions from project operations;
- Cumulative development would also result in significant and unavoidable impacts to regional air quality levels of ROG, NO_X, CO and PM_{10}.

The increase in the severity of the existing air quality violations would make the proposed development inconsistent with one of the two indicators of consistency. Project implementation would result in a significant unavoidable impact with respect to consistency with the AQMP.

If the City of Rancho Palos Verdes approves the project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.

5.3 BIOLOGICAL RESOURCES

The purpose of this Section is to identify existing biological resources on-site and in the vicinity, analyze potential Project-related impacts to these resources (including sensitive species) and recommend mitigation measures to reduce the significance of impacts which are identified. Information in this Section is based on the *Long Point Resort Draft Biological Technical Report*, prepared by BonTerra Consulting (February 2001). The Report is included in it's entirety in Appendix 15.3, *Biological Resources Report*. This Section describes the biological character of the site in terms of vegetation, flora, wildlife, and wildlife habitats and analyzes the biological significance of the site in consideration of federal, state and local laws and policies.

EXISTING CONDITIONS

The Project site encompasses approximately 168.40 acres and is characterized by a variety of resource conditions including marine habitat, partially-disturbed coastal bluffs and hillsides, coastal sage scrub, full-graded bluff-top areas used for agriculture, and remnants of the former Marineland Aquatic Park. The Project site is comprised of two areas: the Resort Hotel Area (RHA) and Upper Point Vicente Area (UPVA).

SURVEY METHODOLOGIES

This Section describes the methodologies used to conduct the various biological field surveys. The results of these survey efforts are discussed in the following section, *Existing Biological Resources*.

Vegetation Mapping and General Plant Surveys

A general reconnaissance field survey was conducted August 22 and September 1, 2000 by BonTerra Consulting. The purpose of this survey was to review the draft vegetation map and Draft Biological Resources Report and Impact Assessment for Long Point Specific Plan Rancho Palos Verdes, California prepared by Dudek & Associates in September 1999 for the City of Rancho Palos Verdes (hereafter referred to as the Dudek report). All plant species observed were recorded in field notes. Plant species were identified in the field or collected for later identification. Plants were identified using taxonomic keys in Hickman (1993), Munz (1974), and Abrams (1923, 1960). Taxonomy follows Hickman (1993) for scientific and common names. Plant community classifications used in this report follow Holland (1986) and Gray and Bramlet (1992).

General Wildlife Surveys

A verification survey to determine the accuracy of existing documentation for wildlife on the Project site was conducted on September 1, 2000 by BonTerra Consulting. The survey consisted of a general walk over of the Project site. All wildlife species observed during the survey were recorded.

Focused Surveys

Special Status Plant Species. Special status plant surveys were not conducted by BonTerra Consulting. Dudek & Associates conducted focused special status plant surveys in 1998. According to the Dudek report, reasonably intact habitats on the site were surveyed during a period when most, if not all, of the potentially-occurring special status plant species would be evident, if not blooming. However, physical access to areas of steep bluffs that could support special status species was not achieved for safety reasons. Surveys were conducted along the top of the intact bluffs on the RHA, and binoculars were used to scan areas that could support plants. No unidentified special status species plants were observed during the Dudek & Associates surveys.

Butterfly Host Plants. A focused survey was conducted by Dudek & Associates on June 15, 1999 for three host plants of two special status butterfly species: locoweed (*Astragalus trichopodus*) and deerweed (*Lotus scoparius*) which are associated with the Palos Verdes blue butterfly (*Glacopsyche lygdamus palosverdesensis*) and ashy-leaved buckwheat (*Eriogonum cineracens*) which is associated with the El Segundo blue butterfly (*Euphilotes battoides allyni*). The location and number of individuals for each host plant species were estimated and recorded on 200-scale topographic field maps.

Coastal California Gnatcatcher. Surveys for the coastal California gnatcatcher (*Polioptila californica californica*) were conducted by Dudek & Associates on May 8, 15, and 22, 1998 per the guidelines issued by the U.S. Fish and Wildlife Service (USFWS) (USFWS, February 28, 1997). These guidelines stipulate that for areas participating in a Natural Communities Conservation Planning (NCCP) program, a minimum of three surveys are to be conducted in suitable habitat, a limit of 100 acres are to be surveyed per day, and surveys are to occur with at least a seven-day interval between site visits. According to the Dudek & Associates report, "survey consisted of slowly walking a meandering transect throughout all suitable habitat" (Dudek 1999).

EXISTING BIOLOGICAL RESOURCES

This section describes the biological resources that either occur or potentially occur within the Project site or in the immediate vicinity. Vegetation types, wildlife populations and movement patterns, special status vegetation types, and special status plant and wildlife species either known or potentially occurring are discussed below. Unless otherwise noted, "the Project site" shall refer to both the Upper Point Vicente Area (UPVA) and the Resort Hotel Area (RHA).

Vegetation Types

Eleven vegetation types occur within the Project site including eight types within the scrub community, two types within the riparian/marine community and four subject to past and present levels of disturbance. Exhibits 5.3-1, *Biological Resources Within Resort Hotel Area*, and 5.3-2, *Biological Resources Within Upper Point Vicente Area*, illustrate the distribution and Table 5.3-1, *Existing Vegetation Types on the Project Site*, summarizes the extent of vegetation types present within the Project site. The following section describes each of the vegetation types observed during the field survey.

Mixed Coastal Sage Scrub and Disturbed Mixed Coastal Sage Scrub. Mixed coastal sage scrub occurs entirely within the Upper Point Vicente Area. The dominant species include California sagebrush (*Artemisia californica*), ashyleaf buckwheat (*Eriogonum cinereum*), California buckwheat (*Eriogonum fasciculatum*), bladderpod (*Isomeris arborea*), California bush sunflower (*Encelia californica),* and scattered evergreen shrubs including lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and toyon (*Heteromeles arbutifolia*). This community also contains scattered succulents such as coast cholla (*Opuntia prolifera*), coastal prickly-pear (*Opuntia littoralis*), oracle cactus *(Opuntia oricola*), and bright green dudleya (*Dudleya virens*). Large portions of the site have been disturbed by long-standing clearing and mowing activities. These areas include a much higher percent cover of non-native grasses and a lower density of native shrubs. Mixed coastal sage scrub was mapped where the native shrub density was greater than 50 percent. Where native shrub density was ten to 50 percent, the habitat was mapped as disturbed mixed coastal sage scrub. Where native shrub density was less than ten percent, the habitat was mapped as disturbed habitat (discussed below).

Burnt Disturbed Mixed Coastal Sage Scrub. The burnt area occurs entirely within the UPVA. This area was previously documented in the Dudek & Associates report as disturbed coastal sage scrub. However, the only vegetation identifiable at the time of the BonTerra survey was ornamental shrubs and trees, which include acacia and fan palm (*Washingtonia filifera*). It is assumed that at the time of the BonTerra survey, the scrub species had not yet had the opportunity to recover from the fire.

Because fire is a natural process to the coastal sage scrub community, it is expected that this area will recover to its previous condition-disturbed mixed coastal sage scrub.

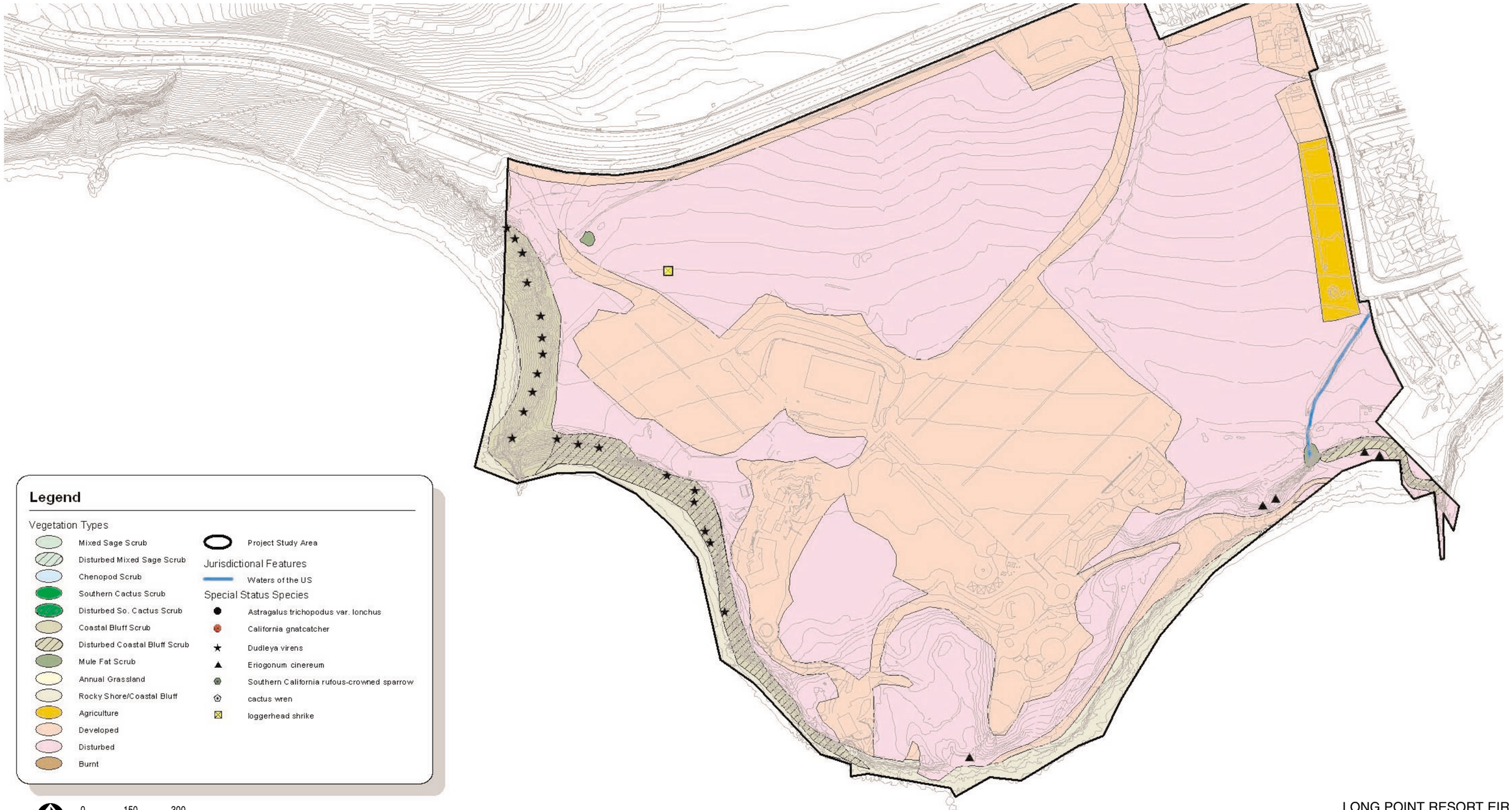
Disturbed Chenopod Scrub. Disturbed chenopod scrub occurs entirely within the UPVA. Chenopod scrub is not recognized as a native plant community by Holland (1986); however, it is a distinct vegetation type in Southern California recognized by Gray and Bramlet (1992). The dominant species in this area include big saltbush (*Atriplex lentiformis*), California buckwheat, and bladderpod. This area is heavily disturbed due to its proximity to development and mowing around the perimeter. This vegetation type contains many non-native and ornamental species, which include statice (*Limonium perezii*) and acacia (*Acacia* sp.).

Southern Cactus Scrub. Southern cactus scrub occurs entirely within the UPVA. Southern cactus scrub is not recognized as a native plant community by Holland (1986); however, it is a distinct vegetation type in Southern California recognized by Gray and Bramlet (1992). This vegetation type contains at least 20-percent cactus. It is dominated by coastal prickly-pear, oracle catus, and coast cholla. It also contains California sagebrush, lemonadeberry, and tree tobacco (*Nicotiana glauca*). This vegetation type has been disturbed in the western portion of the UPVA due to its proximity to Palos Verdes Drive South.

Southern Coastal Bluff Scrub. Southern coastal bluff scrub occurs along the steep cliffs in the RHA. This vegetation type is a native plant community composed primarily of woody and/or succulent plants, up to two meters tall. Dominant species on the RHA include California bush sunflower, bright green dudleya, lemonadeberry, ashyleaf buckwheat, bladderpod, Australian saltbush (*Atriplex semibaccata*), woolly sea-blite (*Suaeda taxifolia*), saw-toothed goldenbush (*Hazardia squarrosa*), and seacliff buckwheat (*Eriogonum parvifolium*). The southern coastal bluff scrub on the southernmost portion of the RHA is disturbed and contains a greater percentage of weedy species including Russian thistle (*Salsola tragus*) and hottentot fig (*Carpobrotus edulis*).

Mule Fat Scrub. Mule fat occurs in two areas in the RHA. One area occurs in a disturbed area south of Palos Verdes Drive South in a drainage. The other area occurs along a blue line stream in the southeastern portion of the RHA. The vegetation in these areas is dominated by mule fat (*Baccharis salicifolia*). Other species present include non-native ornamental species such as tree tobacco, oleander (*Nerium* sp.), and acacia. The drainage in the southern portion of the site flows over the cliffs, and supports grass and ornamental species on the rocky shore.

Exhibit 5.3-1, Biological Resources Within Resort Hotel Area



SOURCE: BONTERRA CONSULTING

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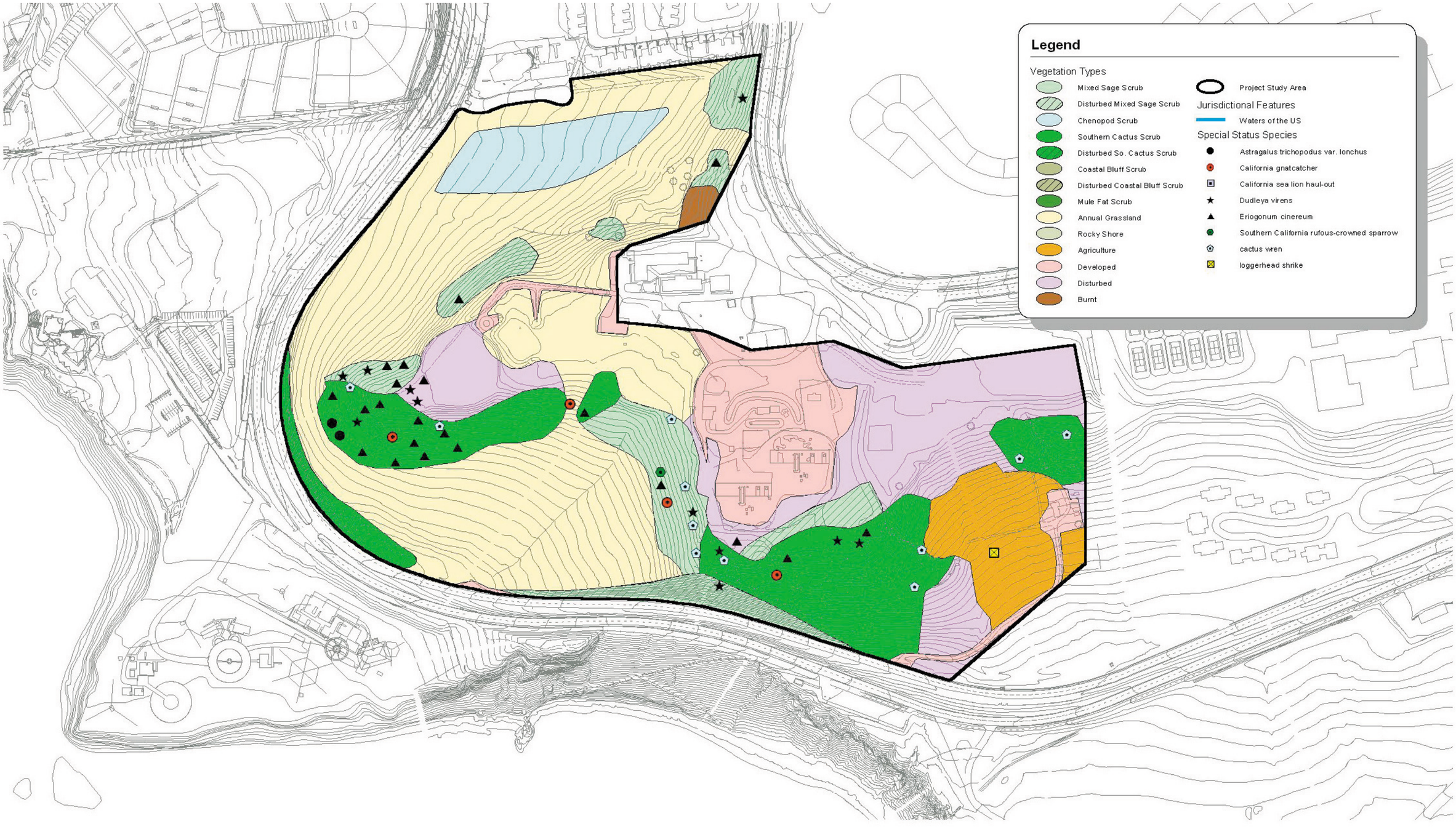
LONG POINT RESORT EIR

Biological Resources Within Resort Hotel Area

Exhibit 5.3-1



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SOURCE: BONTERRA CONSULTING

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LONG POINT RESORT EIR

Biological Resources Within Upper Point Vicente Area

Exhibit 5.3-2

TABLE 5.3-1
EXISTING VEGETATION TYPES ON THE PROJECT SITE

Vegetation Type	Upper Point Vicente Area (acres)	Resort Hotel Area (acres)	Total (acres)
Mixed Coastal Sage Scrub	3.17	0.00	**3.17**
Disturbed Mixed Coastal Sage Scrub	3.07	0.00	**3.07**
Burnt Disturbed Mixed Coastal Sage Scrub	0.29	0.00	**0.29**
Disturbed Chenopod Scrub	2.75	0.00	**2.75**
Southern Cactus Scrub	9.23	0.00	**9.23**
Disturbed Southern Cactus Scrub	1.03	0.00	**1.03**
Southern Coastal Bluff Scrub	0.00	2.17	**2.17**
Disturbed Southern Coastal Bluff Scrub	0.00	2.37	**2.37**
Mule Fat Scrub	0.00	0.09	**0.09**
Annual Grassland	25.94	0.00	**25.94**
Rocky Shore/Coastal Bluff	0.00	3.95	**3.95**
Agricultural	3.58	1.27	**4.85**
Disturbed	8.60	56.80	**65.40**
Developed	7.22	36.87	**44.09**
Total	**64.88**	**103.52**	**168.40**

Source: BonTerra Consulting, February 2001.

Annual Grassland. Annual grassland occurs in the northern portion of UPVA. The annual grassland is dominated by non-native grasses, which include slender wild oat (*Avena barbata*), wild oat (*Avena fatua*), common ripgut grass (*Bromus diandrus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), Bermuda grass (*Cynodon dactylon*), and shortpod mustard (*Hrschfeldia icana*). Lupine seed pods (*Lupinus* sp.) were also present throughout the grassland.

Rocky Shore/Coastal Bluff. Rocky shore occurs directly adjacent to the Pacific Ocean on the southern border of the RHA. There is very little vegetation present in these areas. The only vegetation present is ornamental directly below the blue line stream in the eastern portion of the RHA. The coastal bluff area occurs on the southeast border of the RHA. The coastal bluff area appears to erode on a regular basis and contains no substantial vegetation.

Agricultural. Agriculture is present in the southeastern portion of the UPVA. The agricultural area is an active farm and orchard. This area is actively cultivated and weeded, and contains mostly non-native species. Agriculture is also present in the eastern portion of the RHA. The agricultural area is currently active.

Disturbed. Disturbed habitats occur on both the UPVA and the RHA. The disturbed habitats consist of areas that previously contained Marineland Aquatic Park structures and areas that are cleared for fire control on a routine basis. These areas are characterized by weedy non-native and native species. The species present in these areas include short pod mustard, slender wild oat, Australian saltbush, fennel (*Foeniculum vulgare*), castor-bean (*Ricinus communis*), garland chrysanthemum (*Chrysanthemum coronarium*), Bermuda grass, ripgut grass, statice (*Limonium perezii*), big saltbush, nasturtium (*Trapaeolum majus*), horseweed (*Conyza canadensis*), horehound (*Marrubium vulgare*), and rat-tail fescue (*Vulpia myuros*).

Developed. Developed areas occur throughout the Project site. Developed areas in the UPVA are associated with the City Hall, old military structures, and the agricultural facilities. The developed areas in the RHA consist of parking lots and structures remaining from the former Marineland Aquatic Park, the Galley West Restaurant and Bar, the Pereira Motel, the Catalina Room, and the Lookout Bar. The vegetation present in these areas consists of non-native ornamental plantings. Ornamental vegetation in these areas include pine tree (*Pinus* sp.), acacia, natal plum (*Carissa macrocarpa*), oleander, hottentot fig, eucalyptus (*Eucalyptus* sp.), myoporum (*Myoporum laetum*), pepper-trees (*Schinus terebinthifolius*), oleander shrubs (*Nerium oleander*), and plumbago (*Plumbago* sp.).

Fauna Inventory - Wildlife

Fish. A drainage that forms a small waterfall is present in the southeast corner of the RHA. No fish were observed within this drainage during the surveys, although one or two species may occur. However, only non-native species such as fathead minnow (*Pimephales promelas*), rainwater killifish (*Lucania parva*), and western mosquitofish (*Gambusia affinis*) would be expected to occur.

Amphibians. No amphibians were observed during the surveys, although a few species are expected to occur on the Project site:

The Pacific treefrog (*Hyla regilla*), western toad (*Bufo boreas*), and Pacific slender salamander (*Batrachoseps pacificus*) are anticipated to be present at the drainage in the southeast corner of the RHA. These three amphibian species may also occur in association with ornamental vegetation on the RHA.

The Pacific treefrog, western toad, and Pacific slender salamander may also occur in association with ornamental vegetation and coastal sage scrub habitats on the UPVA.

Reptiles. Only the western fence lizard (*Sceloporus occidentalis*) was observed during the surveys. Other reptiles common in the region and expected to occur on the Project site include the side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Gerrhonotus multicarinatus*), gopher snake (*Pituophis melanoleucus*), California kingsnake (*Lampropeltis getulus*), and western rattlesnake (*Crotalus viridis*).

Birds. It is expected that a variety of birds could be recorded from the Project site due to its location on a coastal promontory that is situated on a point at the southwest end of the Palos Verdes Peninsula. Such locations can provide habitat for migrant passerines[1] in spring and fall and excellent vantage points from which to observe seabirds.

Seabirds observed during the surveys include the black-vented shearwater (*Puffinus opisthomelas*), brown pelican (*Pelecanus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), Brandt's cormorant (*Phalacrocorax penicillatus*), western gull (*Larus occidentalis*), and Heermann's gull (*Larus heermanni*). Some migrants observed during the surveys include the western wood-pewee (*Contopus sordidulus*), house wren (*Troglodytes aedon*), blue-gray gnatcatcher (*Polioptila caerulea*), phainopepla (*Phainopepla nitens*), yellow warbler (*Dendroica petechia*), common yellowthroat (*Geothlypis trichas*), lazuli bunting (*Passerina amoena*), and savannah sparrow (*Passerculus sandwichensis*).

[1] The largest group of birds in the world that are commonly referred to as perching birds or songbirds.

The UPVA also supports native habitats such as coastal sage scrub. The coastal sage scrub community supports a number of breeding birds that are permanent residents. These species found to be present on the UPVA include the bushtit (*Psaltriparus minimus*), cactus wren (*Campylorhynchus brunneicapillus*), Bewick's wren (*Thryomanes bewickii*), California gnatcatcher (*Polioptila californica*), and California towhee (*Pipilo crissalis*).

Birds of prey (raptors) observed or expected to occur on the Project site for foraging include the white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and turkey vulture (*Cathartes aura*). All these species except for the sharp-skinned hawk and turkey vulture also have the potential to nest on the RHA and UPVA.

The RHA supports a small amount of upper shoreline habitat at the base of the coastal bluffs. This habitat provides habitat for roosting seabirds such as the brown pelican, double-crested cormorant, Brandt's cormorant, and a variety of gull species. It also provides foraging opportunities for several sandpipers such as the black oystercatcher (*Haematopus bachmani*), wandering tattler (*Heteroscelus incanus*), whimbrel (*Numenius phaeopus*), ruddy turnstone (*Arenaria interpres*), black turnstone (*Arenaria melanocephala*), and surfbird (*Aphriza virgata*).

Mammals. One mammal, the California ground squirrel (*Spermophilus beecheyi*) was observed on the Project site during the surveys. Several additional species are expected to occur. These include small mammals such as the deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), woodrats (*Neotoma* sp.), pocket gopher (*Thomomys bottae*), black rat (*Rattus rattus*), and house mouse (*Mus musculus*). Easily detectable mammals that are expected to occur on the site include the Virginia opossum (*Didelphis virginiana*), and desert cottontail (*Sylvilagus audubonii*). Larger mammals that may still occur on the Project site include the striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*).

Bats occur throughout most of southern California and may use any portion of the Project site as foraging habitat. Most of the bats that could potentially occur onsite are inactive during the winter and either hibernate or migrate, depending on the species. The big brown bat (*Eptesicus fuscus*), Mexican free-tailed bat (*Tadarida brasiliensis*), California myotis (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), and hoary bat (*Lasiurus cinereus*) may all occur on the Project site. The steep coastal bluffs and abandoned buildings of the Marineland Aquatic Park provide potential roosting opportunities for several bat species.

Fauna Inventory - Wildlife Movement

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (e.g., foraging for food or water, defending territories, searching for mates, accessing breeding areas, or securing cover). A number of terms have been used in various wildlife movement studies, such as "travel route", "wildlife corridor", and "wildlife crossing" to refer to areas in which wildlife move from one area to another.

To clarify the meaning of these terms and to facilitate the discussion on wildlife movement in this analysis, these terms are briefly defined as follows:

- *Travel Route* – a landscape feature such as a ridgeline, drainage, canyon, or riparian strip within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites).

- *Wildlife Corridor* – a piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another.

- *Wildlife Crossing* – a small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement.

As defined above, the Project site does not contain wildlife corridors or wildlife crossings. However, local travel routes on the UPVA and RHA are expected to occur onsite. The native habitats (e.g., coastal sage scrub) of the Project site remain connected to larger areas of natural habitats primarily to the east. One canyon remains immediately north of the UPVA portion of the Project site that supports coastal sage scrub habitats. This canyon does support special status species including the coastal California gnatcatcher. In addition, other small open space areas, such as Point Vincente Park and coastal sage scrub preservation areas on the Subregion 1 Site, remain to the west of the UPVA. However, direct connection to open space areas north and west of the UPVA are obstructed by Hawthorne Boulevard, Palos Verdes Drive, and residential and commercial development. As a result, less mobile wildlife species would be limited in their ability to reach the open space areas to the north and west. More mobile species, such as birds, are less affected by these obstructions and are expected to be able to reach the open space areas north and west of the site that provide suitable habitat for these species.

The steep cliffs in the RHA are expected to provide a narrow linkage for wildlife east and west of the site. Because of the steepness of the terrain and limited diversity

of habitat types in this area, the use of the cliff by wildlife species as a local travel route on the RHA may be limited.

Special Status Biological Resources

The following section addresses special status biological resources observed, reported, or having the potential to occur on the Project site. These resources include plant and wildlife species that have been afforded special status and/or recognition by federal and state resource agencies, as well as the California Plant Society (CNPS). In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss. Tables 5.3-2, *Special Status Plant Species*, and 5.3-3, *Special Status Wildlife Species*, provide a summary of special status plant and wildlife species known to occur in the Project region including information on the status, potential for occurrence, and definitions for the various status designations. In addition, special status biological resources include vegetation types and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, state, and local government conservation programs. Sources used to determine the special status of biological resources are as follows:

- Plants – *Electronic Inventory of Rare and Endangered Vascular Plants of California.* (California Native Plant Society [CNPS] [2000]). California Natural Diversity DataBase (CNDDB) *List of Special Plants* (CDFG [1998]). Various Federal Register notices from the USFWS regarding listing status of plant species.

- Wildlife) California Wildlife Habitat Relationships Database System (CDFG 1991); CNDDB (CDFG 2000), Various Federal Register notices from the USFWS regarding listing status of wildlife species.

- Habitats) CNDDB (CDFG 2000).

TABLE 5.3-2
SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT REGION

Species	Status[1]			Likelihood for Occurrence
	USFWS	CDFG	CNPS	
Aphanisima blitoides Aphanisima	SOC	–-	List 1B	Potential to occur on the RHA.
Atriplex pacifica South coast saltscale	SOC	—	List 1B	Potential to occur on the RHA.
Atriplex parishii Parish's brittlescale	SOC	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Calochortus catalinae Catalina mariposa lily	—	—	List 4	Potential to occur on the UPVA.
Camissonia lewisii Lewis's evening primrose	—	—	List 3	Potential to occur on the RHA.
Centromadia parryi ssp. *australis* Southern tarplant	SOC	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Crossosoma californicum Catalina crossosoma	—	—	List 1B	Potential to occur on the UPVA or RHA.
Dithyrea maritima Beach spectaclepod	SOC	ST	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Dudleya virens ssp. *insularis* Island green dudleya	—	—	List 1B	Observed on the UPVA and RHA.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	SOC	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Lycium brevipes var. *hassei* Santa Catalina Island desert-thorn	—	—	List 1B	Potential to occur on the UPVA and RHA.
Lycium californicum California box-thorn	—	—	List 4	Observed on the RHA; potential to occur on the UPVA.
Navarretia prostrata Prostrate navarretia	—	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Nemacaulis denudata var. *denudata* Coast woolly-heads	—	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Pentachaeta lyonii Lyon's pentachaeta	FE	SE	List 1B	Potential to occur on the UPVA.
Suaeda esteroa Estuary sea-blite	—	—	List 1B	Not expected to occur; no suitable habitat on the UPVA or RHA.
Suaeda taxifolia Woolly sea-blite	—	—	List 4	Observed on the RHA; no potential to occur on the UPVA.

TABLE 5.3-2
SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT REGION (CONTINUED)

[1] **STATUS DEFINITIONS**

USFWS

FE:	Species designated as endangered under the federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."
FT:	Species designated as threatened under the Federal Endangered Species Act. Threatened = "species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."
FPE:	Proposed for federal listing as Endangered.
FPT:	Proposed for federal listing as Threatened.
C:	Candidate for federal listing as Threatened or Endangered.
SOC:	Species of Concern

CDFG

ST:	Threatened = "a species that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act" (California Endangered Species Act).
SE:	Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."

CNPS

1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2	Plants Rare, Threatened, or Endangered in California But More Common Elsewhere
3	Plants About Which We Need More Information- A Review List
4	Plants of Limited Distribution - A Watch List

TABLE 5.3-3
SPECIAL STATUS WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT REGION

Species	Status[1]		Likelihood for Occurrence
	USFWS	CDFG	
Invertebrates			
Euphilotes battoides allyni El Segundo blue butterfly	FE	—	Not expected to occur; host plant present without appropriate habitat on the UPVA or RHA.
Glacopsyche lygdamus palosverdesensis Palos Verdes blue butterfly	FE	—	Very low; limited suitable habitat present on the UPVA; no suitable habitat present on the RHA.
Amphibians			
Scaphiopus hammondi Western spadefoot toad	SOC	SSC/P	Low; limited potentially suitable habitat on the RHA; no suitable habitat on the UPVA.
Reptiles			
Anniella pulchra pulchra Silvery legless lizard	SOC	SSC	Low; limited potentially suitable habitat on the UPVA and RHA.
Cnemidophorus tigris multiscutatus Coastal western whiptail	SOC	—	Moderate; moderate amount of suitable habitat on the UPVA and RHA.
Diadophis punctatus modestus San Bernardino ringneck snake	SOC	—	Moderate; moderate amount of suitable habitat on the UPVA and RHA.
Phrynosoma coronatum blainvillei San Diego coast horned lizard	SOC	SSC/P	Moderate; moderate amount of suitable habitat on the UPVA and RHA.
Birds			
Accipiter cooperii Cooper's hawk**	—	SSC	High; low as breeder; suitable foraging habitat present on the UPVA and RHA.
Accipiter striatus Sharp-shinned hawk**	—	SSC	High; none as breeder; suitable foraging habitat present on the UPVA and RHA.
Agelaius tricolor Tricolored blackbird**	SOC	SSC	Low; suitable foraging habitat, but no nesting habitat on the UPVA and RHA.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	SOC	SSC	Moderate; moderate amount of suitable habitat on the UPVA and RHA.

Species	Status[1]		Likelihood for Occurrence
	USFWS	CDFG	
Asio flammeus Short-eared owl **	—	SSC	Very low; none as breeder; suitable foraging habitat present on the UPVA and RHA.
Athene cunicularia Burrowing owl **	SOC	SSC	Very low; suitable habitat on the UPVA and RHA, but may be extirpated from area.
Buteo regalis Ferruginous hawk*	SOC	SSC	Very low; none as breeder; suitable foraging habitat present on the UPVA; no suitable habitat on the RHA.
Campylorhynchus brunneicapillus couesi Coastal cactus wren	—	SSC	Observed; suitable habitat present on the UPVA; no suitable habitat on the RHA.
Circus cyaneus Northern harrier**	—	SSC	Moderate; very low as breeder; suitable foraging habitat present on the UPVA and RHA.
Dendroica petechia brewsteri Western yellow warbler**	—	SSC	Migrant observed on the RHA; no suitable breeding habitat present on the UPVA or RHA.
Elanus leucurus White-tailed kite**	—	FP	Moderate; very low as breeder; suitable foraging habitat present on the UPVA; no suitable habitat present on the RHA.
Empidonax traillii extimus Southwestern willow flycatcher**	FE	SE	High as a migrant; none as a breeder; no suitable breeding habitat present on the UPVA or RHA.
Eremophila alpestris actia California horned lark	—	SSC	High; very low as breeder; suitable foraging habitat present on the UPVA and RHA.
Falco columbarius Merlin*	—	SSC	Low; none as breeder; suitable foraging habitat present on the UPVA and RHA.
Falco mexicanus Prairie falcon**	—	SSC	Low; very low as breeder; suitable foraging habitat and limited potentially suitable breeding habitat present on the UPVA and RHA.
Falco peregrinus Peregrine falcon **	—	SE	High; low as breeder; suitable foraging habitat and potentially suitable breeding habitat present on the UPVA and RHA.

Species	Status[1]		Likelihood for Occurrence
	USFWS	CDFG	
Icteria virens Yellow-breasted chat**	—	SSC	Low to moderate as a migrant; none as a breeder; no suitable breeding habitat present on the UPVA or RHA.
Lanius ludovicianus Loggerhead shrike	SOC	SSC	Observed; suitable habitat present on the UPVA and RHA.
Larus californicus California gull **	—	SSC	High; none as breeder; suitable roosting and foraging habitat present on the UPVA and RHA.
Pandion halaetus Osprey **	—	SSC	Very low; limited potentially suitable nesting habitat present on the RHA only; no suitable foraging habitat on the UPVA or RHA.
Pelecanus occidentalis California brown pelican **	FE	SE	Observed on the RHA; limited suitable roosting habitat present on the RHA only; not expected to breed on the UPVA or RHA.
Phalacrocorax auritus Double-crested cormorant **	—	SSC	Observed on the RHA; none as breeder on the UPVA and RHA; suitable roosting habitat present on the RHA only.
Polioptila californica californica Coastal California gnatcatcher	FT	SSC	Observed on the UPVA; suitable habitat present on the UPVA only.
Sterna antillarum browni California least tern **	FE	SE	None; no suitable habitat present on the UPVA or RHA.
Sterna elegans Elegant tern **	SOC	SSC	None; no suitable habitat present on the UPVA or RHA.
Vireo bellii pusillus Least Bell's vireo**	FE	SE	None; no suitable breeding habitat present on the UPVA or RHA.
Mammals			
Antrozus pallidus Pallid bat	—	SSC	May occur; potentially suitable habitat for roosting and foraging present on the UPVA only.
Corynorhinus townsendii pallescens Pale big-eared bat	SOC	SSC	May occur; potentially suitable habitat for roosting and foraging present on the UPVA and RHA.

Species	Status[1]		Likelihood for Occurrence
	USFWS	CDFG	
Eumops perotis californicus California mastiff bat	SOC	SSC	May occur; potentially suitable habitat for roosting and foraging present on the UPVA and RHA.
Lepus californicus bennettii San Diego black-tailed jackrabbit	SOC	SSC	Low; limited suitable habitat present on the UPVA only.
Myotis ciliolabrum Small-footed myotis	SOC	—	May occur; potentially suitable roosting and foraging habitat present on the UPVA and RHA.
Myotis yumanensis Yuma myotis	SOC	–--	May occur; potentially suitable foraging habitat present on the UPVA and RHA.
Neotoma lepida intermedia San Diego desert woodrat	SOC	SSC	Moderate; suitable habitat present on the UPVA only.
Perognathus longimembris pacificus Pacific pocket mouse	FE	SSC	Very low; potentially suitable habitat present on the UPVA and RHA.

Status Definitions[1]
USFWS

FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."
FT: Species designated as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."
FPE: Proposed for federal listing as Endangered.
FPT: Proposed for federal listing as Threatened.
SOC: Species of Concern

CDFG

SR: Rare = "a species is rare when, although not presently Threatened with extinction, it is in such small numbers throughout its range that it may become Endangered if its present environment worsens."
ST: Threatened = "a species that, although not presently Threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."
SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."
SSC: Species of Special Concern.

FP: Fully Protected species are protected by special legislation and cannot be taken at any time.
P: Protected species are also protected by special legislation and can only be taken with a permit issued by the CDFG.

* Wintering sites
** Nesting sites

Definitions of Special Status Biological Resources. Special status habitats are vegetation communities, associations, or subassociations that support concentrations of special status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife. Although special status habitats are not afforded legal protection unless they support protected species, potential impacts on them may increase concerns and mitigation suggestions by resources agencies.

A Federally Endangered species is one facing extinction throughout all or a significant portion of its geographic range. A Federally Threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally Threatened or Endangered species on a Project site generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history.

Proposed species are those officially proposed by the USFWS for addition to the federal Threatened and Endangered species list. Because proposed species may soon be listed as Threatened or Endangered, these species could become listed prior to or during implementation of a proposed development project.

The State of California considers an Endangered species as one whose prospects of survival and reproduction are in immediate jeopardy, a Threatened species as one present in such small numbers throughout its range that it is likely to become an Endangered species in the near future in the absence of special protection or management, and a rare species as one present in such small numbers throughout its range that it may become Endangered if its present environment worsens. Rare species applies to California native plants. State Threatened and Endangered species are fully protected against take.

Federal Species of Concern (a "term of art" for former Category 2 candidates) are species within an informal designation by the USFWS for some declining species that are not federal candidates for listing at this time. This designation does not provide legal protection, but signifies that these species are recognized as special status by the USFWS.

California Species of Special Concern is an informal designation used by the CDFG for some declining wildlife species that are not state candidates. This designation does not provide legal protection, but signifies that these species are recognized as special status by the CDFG.

Species that are California Fully Protected and Protected include those protected by special legislation for various reasons, such as the mountain lion and white-tailed kite. Fully protected species may not be taken or possessed at any time. California Protected Species include those species that may not be taken or possessed at any time except under special permit from the department issued pursuant to Sections 650 and 670.7 of the California Code of Regulations, or Section 2081 of the Fish and Game Code.

The California Native Plant Society (CNPS) is a local resource conservation organization that has developed an inventory of California's special status plant species (CNPS 2000). This inventory is the summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory is comprised of four lists. CNPS presumes that List 1A plant species are extinct in California because they have not been seen in the wild for many years. CNPS considers List 1B plants as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California, but more common in other states. Plant species for which CNPS needs additional information are included on List 3. List 4 plant species are those of limited distribution in California whose susceptibility to threat appears low at this time. The Guidelines for the California Environmental Quality Act (CEQA) provides for the protection not only for State-listed species, but for any species which can be shown to meet the criteria for State listing. Section 15380 of the CEQA Guidelines indicate that a lead agency can consider a non-listed species to be Rare or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare and Endangered listed in Section 15380 the of CEQA Guidelines. CNPS List 1B species meet the criteria in the definition of Rare or Endangered and have been addressed accordingly throughout the text.

Special Status Vegetation Types. In addition to providing an inventory of special status plant and animal species, the CNDDB also provides an inventory of vegetation types that are considered special status by the state and federal resource agencies, academic institutions, and various conservation groups (such as CNPS). Determination of the level of sensitivity is based on the Nature Conservancy Heritage Program Status Ranks that rank both species and plant communities on a global and statewide basis according to the number and size of remaining occurrences as well as recognized threats (e.g., proposed developments, habitat degradation, and invasion by non-native species). Special status vegetation types within the Project site are illustrated on Exhibits 5.3-1, *Biological Resources Within Resort Hotel Area*, and 5.3-2, *Biological Resources Within Upper Point Vicente Area*.

Scrub Communities. The scrub communities found on the UPVA, which includes mixed coastal sage scrub (including burned and disturbed), disturbed chenopod scrub, and southern cactus scrub (including disturbed), are recognized as special status vegetation types by local, state, and federal resource agencies. Several of these scrub areas have been disturbed on the site by the invasion of non-native plant species or by fire. Although theses areas are less biologically valuable compared to the undisturbed forms of these vegetation types, the resource agencies nonetheless include these areas as special status types. These areas typically support a rich diversity of special status plants and animals, and it is estimated that these areas have been reduced by 75 to 80 percent of their historical coverage throughout southern California. Approximately 19.54 acres of scrub communities occur on the UPVA.

Southern Coastal Bluff Scrub. The southern coastal bluff scrub found on the RHA is recognized as a special status vegetation type by local, state, and federal resource agencies. This vegetation type has been reduced by the development of the coastline. Southern coastal bluff, including the disturbed areas, supports a unique variety of plants. Approximately 4.54 acres of this vegetation type occurs on the RHA.

Riparian Vegetation. The riparian vegetation found on the RHA, which includes mule fat scrub, typically occurs along perennial or intermittent drainages that typically are subject to seasonal flooding. On the RHA, riparian vegetation includes .09 acre of mule fat scrub.

Special Status Plants. Seventeen special status plant species are known to occur in the Project region. A brief description of the special status plant species that were determined to have potential to occur on the Project site are listed below alphabetically according to their scientific name. This information is also summarized in Table 5.3-2.

Aphanisima (Aphanisima blitoides). Aphanisima is a federal Species of Concern and a CNPS List 1B species that typically blooms from April to May. This annual herb occurs in sandy soils in coastal bluff scrub and coastal scrub. Aphanisima is known to occur on the Palos Verdes Peninsula near Portuguese Bend southward approximately 2.5 miles to Royal Palms Beach, and along the Palos Verdes Hills (CDFG 2000). This species was found on coastal bluff scrub on the Peninsula. Although suitable habitat for this species is present on the RHA, this species was not observed during previous surveys.

South Coast Saltscale (Atriplex pacifica). South coast saltscale is a federal Species of Concern and a CNPS List 1B species that typically blooms from March to October. South coast saltbush is known to occur on the Palos Verdes Peninsula, west of Shoreline Park (CDFG 2000), in coastal sage scrub. Although suitable

habitat for this species is present on the RHA, this species was not observed during previous surveys.

Parish's Brittlescale (Atriplex parishii). Parish's brittlescale is a federal Species of Concern and a CNPS List 1B species that typically blooms from June to October. This annual herb occurs in fine alkaline soils in alkaline meadows, chenopod scrub, and vernal pools. The brittlescale is threatened by grazing and development. Chenopod scrub is present on the UPVA; however, due to the disturbed nature of this vegetation type on the UPVA and the lack of vernal playas, Parish's brittlescale is not expected to occur on the UPVA or RHA and was not observed during previous surveys.

Catalina Mariposa Lily (Calochortus catalinae). Catalina mariposa lily is a CNPS List 4 species that typically blooms from February through May. This bulbiferous perennial herb occurs in native grasslands and openings in coastal sage scrub from sea level to 2,100 feet above mean sea level (msl). This species is known to occur in the Portuguese Bend area of the Palos Verdes Peninsula. Although potentially suitable habitat for the mariposa lily is present on the UPVA, this mariposa lily was not observed during previous surveys.

Lewis's Evening Primrose (Camissonia lewisii). Lewis's evening primrose is a CNPS List 3 species that typically blooms from March to June. This annual herb occurs in sandy or clay soils in coastal bluff scrub, cismontane woodlands, coastal dunes, coastal scrub, and valley foothill grasslands. This species was not included in previous surveys. Suitable habitat for this species is present on the RHA. There is potential for the Lewis's evening primrose to occur in the RHA, although this species was not observed.

Southern Tarplant (Centromadia parryi ssp. australis). Southern tarplant is a federal Species of Concern and a CNPS List 1B species that typically blooms from May to July. This annual herb is known to occur in estuary margins and vernally mesic areas. This species is not expected to occur on the UPVA or RHA due to lack of estuary and vernally mesic habitat.

Catalina Crossosoma (Crossosoma californicum). Catalina crossosoma is a CNPS List 1B species that typically blooms from February to May. This deciduous shrub occurs in rocky soils in coastal bluff scrub and coastal scrub. This species is known to occur on the Palos Verdes Peninsula (Brinkmann-Busi March 1992). This species was not observed on the Project site during previous surveys. Potentially suitable habitat for this species is present on the UPVA and RHA; therefore, the Catalina crossosoma has potential to occur on-site.

Beach Spectaclepod (Dithyrea maritima). Beach spectaclepod is a federal Species of Concern, a state-Threatened species, and a CNPS List 1B species that typically

blooms from April to May. This rhizomatous perennial herb occurs in sandy soils in coastal dunes and coastal scrub. The beach spectaclepod is not expected to occur on the UPVA or RHA due to lack of suitable habitat.

Island Green Dudleya (Dudleya virens ssp. insularis). Island green dudleya is a CNPS List 1B species that typically blooms from April to June. This perennial herb occurs in coastal bluff scrub, chaparral, and coastal scrub. This species occurs throughout the southern coastal bluff scrub on the RHA and primarily in the mixed sage scrub and southern cactus scrub on the UPVA.

Coulter's Goldfields (Lasthenia glabrata ssp. coulteri). Coulter's goldfields is a federal Species of Special Concern and a CNPS List 1B species that typically blooms from February to June. This annual herb is associated with low-lying alkali habitats along the coast and in inland valleys. This species occurs in coastal salt marsh, playas, and vernal pools. This species is not expected to occur on the UPVA or RHA due to lack of suitable habitat.

Santa Catalina Island Desert-thorn (Lycium brevipes var. hassei). Santa Catalina Island desert-thorn is a CNPS List 1B species that typically blooms in June. This deciduous shrub occurs in coastal bluff scrub and coastal scrub. This species was found on the Palos Verdes Peninsula in 1974 (CNPS 2000). Although not observed during previous surveys, suitable habitat for this species is present on the UPVA and RHA; therefore, there is potential for the Santa Catalina island desert-thorn to occur onsite.

California Box-thorn (Lycium californicum). California box-thorn is a CNPS List 4 species that typically blooms from December through August. This deciduous shrub occurs in coastal bluff scrub and coastal scrub. This species has been documented on the RHA in the coastal bluff scrub in the Dudek report and may occur within the UPVA in the scrub habitats.

Prostrate Navarretia (Navarretia prostrata). Prostrate navarretia is a CNPS List 1B species that typically blooms from April to July. This annual herb occurs in alkaline or mesic soils in coastal scrub, valley foothill grassland, and vernal pools. There is no suitable habitat for this species on the UPVA or RHA; therefore, this species is not expected to occur.

Coast Woolly-heads (Nemacaulis denudata var. *denudata)*. Coast woolly-heads is a CNPS List 1B species that typically blooms from April to September. This annual herb occurs in coastal dunes. No suitable habitat is present on the UPVA or RHA for this species; therefore, the coast woolly-heads is not expected to occur.

Lyon's Pentachaeta (Pentachaeta lyonii). Lyon's pentachaeta is a federally- and state-listed Endangered species and a CNPS List 1B species that typically blooms

from March to August. This annual herb occurs in openings in chaparral and valley foothill grasslands and was not observed in previous surveys. Suitable habitat for this species is present on the UPVA; therefore, the Lyon's pentachaeta has potential to occur in the UPVA.

Estuary Sea-blite (Suaeda esteroa). Estuary sea-blite is a CNPS List 1B species that typically blooms from July to October. This perennial herb occurs in coastal salt marsh habitat. No suitable coastal salt marsh habitat is present on the UPVA or RHA; therefore, the estuary sea-blite is not expected to occur.

Woolly Sea-blite (Suaeda taxifolia). Woolly sea-blite is a CNPS List 4 species that typically blooms from January through December. This perennial herb occurs in margins of coastal salt marsh and coastal bluff scrub. Woolly sea-blite occurs on the RHA in the southern coastal bluff scrub. No suitable habitat is present on the UPVA for this species.

Special Status Wildlife. Forty-one special status wildlife species are known to occur within the region and have a potential to occur within the Project site. In addition to focused surveys conducted for the coastal California gnatcatcher in 1998, a host plant survey for the Palos Verdes blue butterfly and El Segundo blue butterfly was conducted in 1999 (Dudek 1999). Brief descriptions of the special status wildlife species and their potential to occur within the Project site are discussed below. Please note that they are grouped by type and listed alphabetically according to their scientific name. These species are summarized in Table 5.3-3.

Invertebrates

El Segundo Blue Butterfly (Euphilotes battoides allyni). The El Segundo blue butterfly is a federally-listed Endangered species. This butterfly persists on just a few remaining fragments of dune habitat along the Los Angeles County coast from Los Angeles International Airport to Palos Verdes. The largest remaining population of this species is found on the property of the Los Angeles International Airport. The El Segundo blue butterfly is not only threatened by loss of habitat, but by threats to the continued survival of its host plant. Ashy-leaved buckwheat (*Eriogonum cineracens*) is the larval food plant or host plant for the species and it is threatened by competition from several introduced plants including other buckwheats. The larvae of the El Segundo blue butterfly cannot successfully feed on these other buckwheats. The El Segundo blue butterfly adult flight period is May through June (Garth and Tilden 1986).

The host plant for the El Segundo blue butterfly was identified on the UPVA during the 1999 focused surveys. The ashy-leaved buckwheat was found within the coastal sage scrub and southern cactus scrub habitats on the UPVA. Although the larval food plant for the El Segundo blue butterfly was identified on the UPVA, the

appropriate dune habitat for the species was not. Therefore the El Segundo blue butterfly is not expected to occur on the UPVA or RHA due to a lack of suitable habitat.

Palos Verdes Blue Butterfly (Glacopsyche lygdamus palosverdesensis). The Palos Verdes blue butterfly is a federally-listed Endangered species. It was believed to be extinct, but was rediscovered on March 10, 1994 at a Defense Fuel Support Point site in San Pedro. During the 1980s, there were 12 locations identified as supporting the Palos Verdes blue butterfly. All of these locations were on the southern half of the Palos Verdes Peninsula and supported coastal sage scrub habitats. This butterfly is a subspecies of the silvery blue (*Glaucopsyche lygdamus*), of which at least ten subspecies have been described. These subspecies occur in small colonies that are distributed locally across North America. The larval food plants or host plants for this species consist of legumes (Garth and Tilden 1986), such as milk-vetch or rattleweed (*Astragalus trichopodus lonchus*), that is used by the Palos Verdes blue butterfly. In addition, this species will also lay its eggs on deerweed (*Lotus scoparius*).

One of the two required larval food plant species was identified on UPVA during the 1999 focused surveys for host plants of the Palos Verdes blue butterfly. Locoweed was observed at the edge of southern cactus scrub in the UPVA. It is presumed that the habitat here is too fragmented and disturbed to support the Palos Verdes blue butterfly. The quality of onsite habitat and the current distribution of the Palos Verdes blue butterfly indicate that its potential to occur on the UPVA is very low.

Amphibians

Western Spadefoot Toad (Scaphiopus hammondi). The western spadefoot toad is a federal Species of Concern, a California Species of Special Concern, and a CDFG Protected species. This species inhabits grassland, coastal sage scrub, and other habitats with open sandy, gravely soils. The western spadefoot toad is primarily a species of the lowlands, frequenting washes, floodplains of rivers, alluvial fans, and alkali flats (Stebbins 1985). This species is rarely seen outside of the breeding season. They breed in vernal pools and temporary ponds. The RHA provides a limited amount of potentially suitable habitat for this species in the areas supporting mule fat scrub and its potential to occur is considered to be low. No suitable habitat for this species occurs on the UPVA.

Reptiles

Silvery Legless Lizard (Anniella pulchra pulchra). The silvery legless lizard is a federal Species of Concern and a California Species of Special Concern. The

silvery legless lizard inhabits areas with moist sandy soil, including dry washes, woodlands, riparian, and scrub communities at elevations ranging from sea level to about 5,000 feet above msl (Stebbins 1985). The UPVA and RHA provides a limited amount of potentially suitable habitat for this species and its potential to occur is considered to be low.

Coastal Western Whiptail (Cnemidophorus tigris multiscutatus). The coastal western whiptail is a federal Species of Concern. It is a moderately large, slender lizard typically found in open scrub, chaparral, and woodland communities in semi-arid areas or where vegetation is sparse. The species is restricted to the western coast of North America from Ventura County south through the northern two-thirds of the Baja California peninsula. The UPVA and RHA provide a moderate amount of suitable habitat for this species and its potential to occur is considered to be moderate.

San Bernardino Ringneck Snake (Diadophis punctatus modestus). The San Bernardino ringneck snake is a federal Species of Concern and is considered locally rare in southwestern California. It inhabits scrub, chaparral, native grassland, and woodland communities. This species is difficult to detect due to its secretive behavior. It occurs in elevations from sea level to 7,000 feet above msl (Stebbins 1985). The UPVA and RHA provide a moderate amount of suitable habitat for this species and its potential to occur is considered to be moderate.

San Diego Coast Horned Lizard (Phrynosoma coronatum blainvilleii). The San Diego coast horned lizard is a federal Species of Concern, a California Species of Special Concern, and a CDFG Protected species. It is a small, spiny, somewhat rounded lizard that occurs primarily in open or sparse scrub and chaparral communities. This species prefers loose, friable soils for burrowing. Three factors have contributed to its decline: loss of habitat, overcollecting, and the introduction of exotic ants. In some places, especially adjacent to urban areas, the introduced ants have displaced the native species upon which the lizard feeds (Hix 1990). The UPVA and RHA provide a moderate amount of suitable habitat for this species and its potential to occur is considered to be moderate.

Birds

Cooper's Hawk (Accipiter cooperii). The Cooper's hawk is a California Species of Special Concern. Both resident and migratory populations exist in Los Angeles County. Wintering Cooper's hawks are often seen in wooded urban areas and native woodland communities. Preferred nesting habitats are oak and riparian woodlands dominated by sycamores and willows. Cooper's hawks in the region prey on small birds and rodents that live in woodland and, occasionally, scrub and chaparral communities. This raptor is an uncommon breeding resident on the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide suitable foraging

habitat, but a limited amount of nesting habitat for this raptor. Therefore, its overall potential to occur is considered to be high, although the potential for breeding is low.

Sharp-shinned Hawk (Accipiter striatus). The sharp-shinned hawk is a California Species of Special Concern. This raptor is a fairly common winter visitor along the coast of southern California (Garrett and Dunn 1981). It prefers woodland communities, but can also be found in virtually any habitat as it passes through the area during migration. The sharp-shinned hawk is a fairly common winter visitor on the Palos Verdes Peninsula, usually in wooded areas (Bradley 1980). The UPVA and RHA provide suitable foraging habitat, but no nesting habitat, for this raptor. Therefore, its potential to occur is considered to be high, with no potential for breeding.

Tricolored blackbird (Agelaius tricolor). The tricolored blackbird is a federal Species of Concern and a California Species of Special Concern. These colonially-nesting birds prefer to breed in marsh vegetation of bulrushes and cattails, and have also been recorded nesting in willows, blackberries, and mustard (Beedy et. al. 1991). During winter months, they are often found foraging in wet pastures, agricultural fields, and seasonal wetlands. The tricolored blackbird breeds at Machado Lake just south of the intersection of the Harbor Freeway and Pacific Coast Highway and adjacent to the Ken Malloy Harbor Regional Park on the north side of the Palos Verdes Peninsula. The UPVA and RHA provide suitable foraging habitat for this species, but nesting habitat is only found on the north side of the peninsula away from the these areas. Therefore, the potential for this species to occur at the Project site is considered to be low.

Southern California Rufous-crowned Sparrow (Aimophila ruficeps canescens). The Southern California rufous-crowned sparrow is a federal Species of Concern and a California Species of Special Concern. In coastal southern California, rufous-crowned sparrows are considered fairly common in scrub communities and other habitats vegetated with grasses and widely spaced low shrubs. They also prefer slopes with rock outcroppings. This subspecies is present throughout the year in southern California. The UPVA and RHA provide a moderate amount of suitable habitat for this species; therefore, its potential to occur is considered to be moderate.

Short-eared Owl (Asio flammeus). The short-eared owl is a California Species of Special Concern. It is an uncommon winter visitor along the coast of southern California, primarily occurring in marsh habitats. This owl forages in open habitats including marshes, grasslands, and agricultural fields. The short-eared owl is a rare winter visitor to the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide suitable foraging habitat, but no nesting habitat, for this species. Therefore, its potential to occur is considered to be very low and there is no potential for breeding.

Burrowing Owl (Athene cunicularia). The burrowing owl is a federal Species of Concern and a California Species of Special Concern. Burrowing owls breed and forage in grasslands and agricultural fields, preferring flat to low rolling hills in treeless terrain. It now may be extirpated as a breeding resident from the Palos Verdes Peninsula, as the only recent reports in the area have been from the California State University at Dominguez Hills. The UPVA and RHA provide a moderate amount of suitable habitat for the burrowing owl; however, due to its current status in the region, its potential to occur is considered to be very low.

Ferruginous Hawk (Buteo regalis). The ferruginous hawk is a federal Species of Concern and a California Species of Special Concern. Ferruginous hawks occur from mid-fall through early spring in coastal southern California. They forage over grasslands and the ecotone between coastal sage scrub and grasslands. This raptor is considered to be an accidental visitor to the Palos Verdes Peninsula, with only one record prior to 1980 (Bradley 1980). The UPVA provides a limited amount of suitable foraging habitat, but no nesting habitat, for this species. Therefore, its potential to occur on the UPVA is considered to be very low, with no potential for breeding. No suitable breeding or foraging habitat for this species occur on the RHA.

Coastal Cactus Wren (Campylorhynchus brunneicapillus couesi). The coastal cactus wren is a California Species of Special Concern. Cactus wrens are residents in coastal southern California where they occur in dry washes with yuccas and cacti, and on lower coastal slopes and bluffs with extensive patches of prickly-pear cactus (Garrett 1981). Suitable habitat for the cactus wren is only present on the UPVA. A total of 11 individual coastal cactus wrens were present on the UPVA during the 1998 surveys.

Northern Harrier (Circus cyaneus). The northern harrier is a California Species of Special Concern. It is a regular winter migrant that occasionally breeds along the coast of southern California. Foraging habitat consists of marsh, grassland, and scrub habitats. It is considered to be an uncommon to rare winter visitor on the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide suitable foraging habitat, but limited potentially suitable nesting habitat, for this raptor. Therefore, its potential to occur is considered to be moderate, but the potential for breeding is very low.

Western Yellow Warbler (Dendroica petechia brewsteri). The subspecies of yellow warbler that breeds in southern California is *D.p. brewsteri* (Dunn and Garrett 1997); most are migrants. The CDFG has included this subspecies on its list of California Species of Special Concern. *D.p. brewsteri* occurs in coastal areas from northwestern Washington south to western Baja California (Dunn and Garrett 1997). In southern California, yellow warblers breed locally in riparian woodlands. Although

a migrant yellow warbler was observed during surveys on the RHA, the UPVA and RHA do not provide suitable nesting habitat for this species.

White-tailed Kite (Elanus leucurus). The white-tailed kite is a California Fully Protected species. This raptor typically nests in oaks, willows, and sycamores, and forages within adjacent grassland and scrub habitats. White-tailed kites show strong site fidelity to nest groves and trees. The most abundant prey species for this raptor includes the California vole, western harvest mouse, and house mouse. On the Palos Verdes Peninsula, this raptor is an uncommon winter visitor (Bradley 1980). The UPVA provides suitable foraging habitat, but limited potentially suitable nesting habitat, for this raptor. Therefore, its potential to occur on the UPVA is considered to be moderate, but the potential for breeding is very low. No suitable foraging or breeding habitat is present on the RHA for this species.

Southwestern Willow Flycatcher (Empidonax traillii extimus). The southwestern willow flycatcher is a federally- and state-listed Endangered species. This subspecies has declined drastically due to a loss of breeding habitat and nest parasitism by brown-headed cowbirds. This species occurs in riparian habitats along rivers, streams, or other wetlands where dense growths of willows (*Salix* sp.), baccharis (*Baccharis* sp.), arrowweed (*Pluchea* sp.), tamarisk (*Tamarix* sp.), or other plants are present, often with a scattered overstory of cottonwood (*Populus* sp.) (USFWS February 27, 1995). The potential for migrant willow flycatchers, especially the subspecies *E. t. brewsteri*, to occur on the Project site (including both the UPVA and RHA) is considered to be high. However, the RHA and UPVA does not provide suitable nesting habitat for this species. Therefore, there is no potential for the southwestern willow flycatcher to breed in these areas.

California Horned Lark (Eremophila alpestris actia). The CDFG has included this subspecies on its list of California Species of Special Concern. In southern California, this subspecies is a fairly common breeding resident in grasslands and other dry, open habitats. The horned lark is a common winter visitor on the Palos Verdes Peninsula that formerly nested in the area (Bradley 1980). The UPVA and RHA provide suitable foraging habitat, but limited suitable nesting habitat, for this species. Therefore, its potential to occur is considered to be high, but the potential for breeding is very low.

Merlin (Falco columbarius). The merlin is a California Species of Special Concern. In California, the merlin prefers vast open space areas such as estuaries, grasslands, and deserts where it hunts small flocking birds such as sandpipers, larks, sparrows, and pipits. The merlin is a very rare winter visitor to the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide suitable foraging habitat, but no nesting habitat, for this raptor. Therefore, its potential to occur is considered to be low, and there is no potential for breeding.

Prairie Falcon (Falco mexicanus). The prairie falcon is a California Species of Special Concern. It is now a rare visitor to the coastal plain of southern California. Foraging habitat for this species consists of open habitats such as deserts, grasslands, rangelands, and marshes. For nesting, this large falcon uses ledges of cliff faces. The prairie falcon is a very rare winter visitor to the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide suitable foraging habitat for this raptor, but limited potentially suitable nesting habitat. Therefore, its potential to occur is considered to be low, but the potential for breeding is considered to be very low.

Peregrine Falcon (Falco peregrinus). The peregrine falcon is a state-listed Endangered species that, due to recent population gains, has been recently delisted as Endangered by the USFWS. No such delisting has been proposed by the state. Peregrine falcons prey almost exclusively on birds and use a variety of habitats, particularly wetlands and coastal areas. The peregrine falcon is now a regular visitor to the Palos Verdes Peninsula, including Point San Vicente adjacent to the Project site. The Project site (both the UPVA and RHA) provides suitable foraging habitat and potentially suitable nesting habitat for the peregrine falcon. In recent years in Los Angeles County, peregrine falcons have only nested in urban areas (e.g., building ledges). However, historically they used cliffs, such as the cliffs at the RHA, for nesting. Therefore, its potential to occur on the UPVA and RHA is considered to be high, but the potential for breeding is considered to be low.

Yellow-breasted Chat (Icteria virens). The yellow-breasted chat is a California Species of Special Concern. For nesting, this species requires dense, brushy tangles near water and riparian woodlands supporting a thick understory. The yellow-breasted chat is an uncommon transient to the Palos Verdes Peninsula (Bradley 1980). Although migrant yellow-breasted chats are expected to occur during migration, the UPVA and RHA do not provide suitable nesting habitat for this species. Therefore, its potential to occur is low to moderate as a migrant, but there is no potential for breeding.

Loggerhead Shrike (Lanius ludovicianus). The loggerhead shrike is a federal Species of Concern and a California Species of Special Concern. This species is a fairly common resident of lowlands and foothills in southern California. Shrikes inhabit grasslands and other dry, open habitats. They can often be found perched on fences and posts from which prey items (e.g., large insects, small mammals, lizards) can be seen. The UPVA and RHA provide suitable habitat for the loggerhead shrike and it was observed during surveys.

California Gull (Larus californicus). The California gull is a California Species of Special Concern. This gull forages over the open ocean, but scavenges in urban habitats wherever food scraps are available, especially at landfills. Habitat for loafing or roosting includes rocky shorelines. It is considered to be an abundant

winter visitor on the Palos Verdes Peninsula (Bradley 1980). The UPVA and RHA provide limited suitable roosting and foraging habitat, but no nesting habitat, and its potential to occur is considered to be high.

Osprey (Pandion halaetus). The osprey is a California Species of Special Concern. This raptor is a year-round visitor to southern California (Garrett and Dunn 1981). The osprey is a specialized predator of fish in relatively large bodies of water from the ocean inland. It nests in large trees or man-made structures such as utility poles. It is considered to be a rare migrant and winter visitor on the Palos Verdes Peninsula (Bradley 1980), although it has increased in the region in recent years. The RHA provides limited potentially suitable nesting habitat and no foraging habitat, although suitable foraging habitat is present just offshore. Therefore, the potential for the osprey to occur on the RHA is considered to be very low. No suitable foraging or nesting habitat for this species occurs on the UPVA.

California Brown Pelican (Pelecanus occidentalis). The California brown pelican is a federally- and state-listed Endangered species. The breeding range of the California brown pelican is the Channel Islands off the coast of southern California, on islands along the west coast of Baja California, and in the Gulf of California (A.O.U. 1957). After the breeding season, the pelicans leave the islands and disperse along the entire west coast, with most wintering in southern California and lower densities occurring further up the coastline as far north as southern British Colombia. Pesticide use, especially of DDT, led to widely documented reproductive problems for certain species of birds, including egg shell thinning for the brown pelican. The California brown pelican was listed as Endangered by the CDFG on June 27, 1971 and by the USFWS on October 13, 1970.

The brown pelican occurs in marine environments and rarely strays far from the immediate coastline. It is found primarily on open beaches, lagoons, tidal rivers, rocky coasts, jetties and breakwaters, and islands. The brown pelican is a non-breeding year round visitor to the Palos Verdes Peninsula that is most common in fall and winter (Bradley 1980). The RHA provides a limited amount of suitable roosting habitat and this species was observed during the surveys as it roosted on the rocky shoreline at the base of the coastal bluffs. Although the RHA provides potentially suitable nesting habitat, the lack of isolation from potential predators and human disturbance suggests that breeding by brown pelicans at this location is not to be expected. No suitable foraging or nesting habitat for this species occurs on the UPVA.

Double-crested Cormorant (Phalacrocorax auritus). The double-crested cormorant is a California Species of Special Concern. This species nests colonially on cliffs or in trees either along the ocean coastline or at inland bodies of water. It is dependent on aquatic habitats for foraging opportunities where it dives for its food. Habitat for roosting includes trees and rocky shorelines. It is considered to be a

fairly common non-breeding resident on the Palos Verdes Peninsula (Bradley 1980). The RHA provides a limited amount of suitable roosting habitat and this species was observed during the surveys as it roosted on the rocky shoreline at the base of the coastal bluffs.

Coastal California Gnatcatcher (Polioptila californica californica). The coastal California gnatcatcher is a federally-listed Threatened species and a California Species of Special Concern. This species occurs in most of Baja California's arid regions, but it is extremely localized in the United States, where it predominantly occurs in coastal regions of highly urbanized Los Angeles, Orange, Riverside, and San Diego counties (Atwood 1992). In California, this species is an obligate resident of several distinct subassociations of the coastal sage scrub plant community. Brood parasitism by brown-headed cowbirds and loss of habitat to urban development have been cited as causes of the coastal California gnatcatcher population decline (Unitt 1984; Atwood 1990). The Manomet Bird Observatory studies indicated that the Palos Verdes Peninsula supported a population of between 26 and 56 pairs between 1993 and 1996 (Atwood et al. 1996). The four gnatcatcher pairs onsite represent the southwestern most portion of the population of gnatcatchers on the Palos Verdes Peninsula. The apparent “core” of the Palos Verdes population occurs in the coast foothills northeast of Abalone Cove, approximately 2.5 miles east of the Project site. Suitable habitat for the coastal California gnatcatcher is present on the UPVA. A total of four pairs of coastal California gnatcatchers were present on the UPVA during the 1998 surveys.

On October 24, 2000, the USFWS published a final rule to designate 513,650 acres of land as critical habitat for the coastal California gnatcatcher. These lands encompass portions of Los Angeles, San Bernardino, Orange, Riverside, and San Diego counties in California. The designation of critical habitat includes “Unit 8", which includes the Palos Verdes Peninsula Subregion. Critical habitat refers to specific geographic areas that are essential for the conservation of a Threatened or Endangered species and that may require special management considerations. These areas do not necessarily have to be occupied by the species at the time of designation. A critical habitat designation does not set up a preserve or refuge and only applies to situations where Federal funding or a Federal Permit is involved. A Section 7 consultation with USFWS is required for any Federal action (i.e., issuance of an ACOE Permit) that is likely to result in the adverse modification or destruction of critical habitat. The UPVA and RHA are located within areas designated as critical habitat with Unit 8 of the USFWS final rule.

California Least Tern (Sterna antillarum browni). The California least tern is a federally- and state-listed Endangered species. This migratory species nests from April through August along the coast of California from San Francisco south to Baja California. The least tern has declined due to loss of suitable nesting habitat as a result of increasing levels of human activities on beaches and a reduction in

estuarine foraging areas. The UPVA and RHA do not provide suitable foraging, roosting, or nesting habitat for this species. However, this species is expected to occasionally occur just offshore from the RHA as it either forages or passes by.

Elegant Tern (Sterna elegans). The elegant tern is a federal Species of Concern and California Species of Special Concern. Nesting colonies of this tern are found at only a few locations in the U.S. Recent locations are south San Diego Bay in San Diego County, Bolsa Chica Ecological Reserve in Orange County, and the Los Angeles Harbor. The Los Angeles Harbor colony first appeared in 1998 on new dredge fill that is destined to become part of the Port of Los Angeles Harbor complex. The elegant tern is a common visitor to the Palos Verdes Peninsula from summer into fall. The UPVA and RHA do not provide suitable foraging, roosting, or nesting habitat for this species. However, this species is expected to occasionally occur just offshore from the RHA as it either forages or passes by.

Least Bell's Vireo (Vireo bellii pusillus). The least Bell's vireo is a federally- and state-listed Endangered species. The vireo is now a rare and local summer resident of southern California's lowland riparian woodlands. While destruction of lowland riparian habitats has played a large role in driving this species to its present precarious situation, brood parasitism by brown-headed cowbirds is the most important factor in its decline (Garrett and Dunn 1981). The RHA and UPVA do not provide suitable nesting habitat for this species. Therefore, there is no potential for the least Bell's vireo to breed on either the RHA or UPVA.

Mammals

Pallid Bat (Antrozus pallidus). The pallid bat is a California Species of Special Concern that most commonly occurs in mixed oak and grassland habitats. This large bat roosts in rock crevices and in cavities of trees, especially oaks. The UPVA provides potentially suitable roosting and foraging habitat for this species and it may occur. No suitable habitat for this species occurs on the RHA.

Pale Big-eared Bat (Corynorhinus townsendii pallescens). The pale big-eared bat occurs throughout California and is a federal Species of Concern and California Species of Special Concern. In the southern portion of the state, the subspecies, *C. t. pallescens* (Hall 1981), occupies a variety of communities, including oak woodlands, arid deserts, grasslands, and high-elevation forests and meadows. Known roosting sites in California include mines, caves, and buildings. The UPVA and RHA provide potentially suitable roosting and foraging habitat for this species and it may occur.

California Mastiff Bat (Eumops perotis californicus). The California mastiff bat, the largest bat in the United States, is a federal Species of Concern and a California Species of Special Concern. This species is a very wide-ranging and high-flying

insectivore that typically forages in open areas with high cliffs. It roosts in crevices in small colonies. The UPVA and RHA provide potentially suitable roosting and foraging habitat for this species and it may occur.

San Diego Black-tailed Jackrabbit (Lepus californicus bennettii). The San Diego black-tailed jackrabbit is a federal Species of Concern and a California Species of Special Concern. This subspecies of the widespread black-tailed jackrabbit is restricted to the Pacific slope from Santa Barbara County to northwestern Baja California. This species is nocturnal and prefers relatively open areas with sparse shrub cover. The UPVA provides a limited amount of suitable habitat for this species. Therefore, its potential to occur on the UPVA is considered to be low. No suitable habitat for this species occurs on the RHA.

Small-footed Myotis (Myotis ciliolabrum). The small-footed myotis is a federal Species of Concern and occurs throughout much of the western United States, occupying a variety of habitats. This species feeds among trees or over brush, and roosts in cavities of cliffs, trees, or rocks and within caves or mine shafts. The UPVA and RHA provide potentially suitable roosting and foraging habitat for this species and it may occur.

Yuma Myotis (Myotis yumanensis). The Yuma myotis is a federal Species of Concern and a relatively small bat that occurs statewide. This species is closely associated with water and wooded canyon bottoms throughout its range. Caves and old buildings are preferred roosting habitats, with roosts numbering up to 2,000 individuals. The UPVA and RHA provide potentially suitable foraging habitat for this species and it may occur.

San Diego Desert Woodrat (Neotoma lepida intermedia). The San Diego desert woodrat is a federal Species of Concern and California Species of Special Concern. It occupies arid areas with sparse vegetation, especially those comprised of cactus and other thorny plants. This subspecies is restricted to the Pacific slope in a range that stretches from San Luis Obispo to northwestern Baja California. The UPVA provides suitable habitat for this species and its potential to occur is considered to be moderate. No suitable habitat for this species occurs on the RHA.

Pacific Pocket Mouse (Perognathus longimembris pacificus). The Pacific pocket mouse is a federally-Endangered species and a California Species of Special Concern. The historic range of this subspecies is the immediate coastal slope between El Segundo, Los Angeles County, and northwestern Baja California. There are eight historically-known populations of the Pacific pocket mouse (USFWS 1994b). These populations are known from Los Angeles, Orange and San Diego counties. The species is now presumed to be extinct north of the San Joaquin Hills (Williams 1986). This mouse has been found on sandy, gravelly and stony soils, although it is rarely found on rocky sites (Williams 1986, Zeiner et al. 1990). The

UPVA and RHA provide habitat that is potentially suitable for this species. However, its current known distribution suggests that potential for the Pacific pocket mouse to occur is very low.

ONGOING REGIONAL AND LOCAL HABITAT CONSERVATION PROGRAMS

NATURAL COMMUNITIES CONSERVATION PLANNING PROGRAM

On August 30, 1991, the State Fish and Game Commission considered a petition in support of listing the coastal California gnatcatcher. The Commission decided not to list the coastal California gnatcatcher as an Endangered species in favor of pursuing preparation of a Natural Communities Conservation Planning (NCCP) program as proposed by Assembly Bill 2172 (AB 2172/Natural Communities Conservation Planning Act) (Fish and Game Code Section 2800 et. seq.). AB 2172 authorized the CDFG to enter into agreements with any person for the purpose of preparing and implementing NCCPs and prepare guidelines for development and implementation of NCCPs. AB 2172 also permits NCCPs to be prepared by local, state, or federal agencies independently or in cooperation with other persons, and requires the CDFG to be compensated for costs incurred in preparing and implementing NCCPs.

The purpose of the NCCP program is to provide regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. AB 2172 was designed in recognition of the fact that individual species protection under the state Endangered Species Act (CESA) and the federal Endangered Species Act (FESA) is costly and historically ineffective as a mechanism for protection or prevention of extinction of plant and animal species, and that a habitat-based, multispecies or ecosystem-driven preservation approach has greater potential for long-term success. The focus of the NCCP program represents a dramatic shift from “individual species” to “habitat.”

On March 25, 1993, the U.S. Department of the Interior listed the coastal California gnatcatcher as a “Threatened” species and adopted a special rule in accordance with Section 4(d) of the FESA that authorized landowners and local jurisdictions to voluntarily participate in the State of California NCCP Act of 1992.

Beginning in 1996, and in concert with state and federal resource agencies, the City of Rancho Palos Verdes has taken the lead in developing a NCCP for areas within its jurisdiction pursuant to the California Natural Community Conservation Planning Act of 1991 and the FESA. The City’s NCCP is still in the process of preparation

and must be approved by state and federal agencies. Once approved, the City's NCCP will establish Biological Reserve Area(s) in the City to provide for the protection of the federally-listed Threatened coastal California gnatcatcher, sensitive native plant communities (e.g., coastal sage scrub), and other sensitive species (e.g., coastal cactus wren and loggerhead shrike).

The NCCP program will be completed in two phases: an interim phase and an implementation phase. The interim phase is defined as the period of time between the March 25, 1993 listing date and the approval of the subregional NCCP program by the USFWS. During the interim phase, the USFWS may approve incidental habitat loss associated with development, provided the loss does not exceed the five-percent cumulative maximum established for the subregion and is adequately mitigated.

On October 7, 1999, the USFWS issued a biological opinion (BO) regarding the reinitiation of intra-service consultation on implementation of the "special rule" for the gnatcatcher for the interim phase. The 1999 BO was issued because the "incidental take" of gnatcatchers pursuant to Section 4(d) of the Federal Endangered Species Act (FESA) was approaching the amount authorized in the most recent (October 16, 1996) BO for this program. According to the 1999 BO, a maximum of five percent of the remaining 12,501 acres of sage scrub may be lost as a result of the continued use of the interim provisions of the special rule, Section 7 consultations, and section 10(a)(1)(b) incidental take permits throughout the entire NCCP planning area in southern California. At the present time, there are no remaining acres of coastal sage scrub in the City NCCP subregion that can be removed under the 4(d) special rule (J. Rojas, pers. comm. 2000).

The implementation phase of the NCCP will begin when the subregional NCCP program is completed and approved. The USFWS will monitor the plan to ensure the success of the implementation program.

The design of the City's NCCP reserve is currently under development (D. Snow, pers. comm. 2000). The reserve design will attempt to preserve the most biologically rich areas within the subregion while identifying those areas suitable for development. The City NCCP subarea, although relatively small in area as compared to other NCCP subareas in Southern California, is unique in that it contains healthy concentrations of coastal sage scrub habitat (approximately 1,250 acres) and a number of coastal sage scrub species which are not found in other Southern California coastal sage scrub communities including ashyleaf buckwheat, bright green dudleya, and Palos Verdes blue butterfly.

LONG POINT HABITAT CONSERVATION PROGRAM

The Project is divided into three (3) distinct land use districts: the Conservation District; the Recreation District; and the Resort Development District. These districts are illustrated on Exhibit 3-3, *Land Use Map*, and outlined in Table 3-2, *Land Use Summary*. As part of the Conservation District, the Long Point Habitat Conservation Program (LPHCP) has been developed by the Project Applicant. This area is illustrated in Exhibit 5.3-3 and 5.3-4, *Biological Resources Preservation/ Enhancement Areas Within the RHA and the UPVA*.

The LPHCP contains habitat restoration and enhancement design concepts for the Conservation District area through revegetation with drought-tolerant species, transitional areas of planting between the Conservation Area and Resort Hotel or Recreation Planning Areas, and design for long-term sustainability. In addition, the program states that Project drainage and surface runoff would be directed away from the bluff habitat areas in the RHA and public access may be combined in the UPVA to reduce overall impacts.[2] The LPHCP for the UPVA and RHA are discussed separately below.

Resort Hotel Area

The RHA contains 4.54 acres of existing coastal bluff scrub. Construction of the proposed Project would remove 0.10 acre of habitat. The remaining 4.44 acres of existing habitat are proposed to be retained and, where appropriate, enhanced with new native vegetation.

The RHA Conservation Area, referred to as the Bluff/Beach Habitat Reserve (PA 1-A), would include 4.44 acres of coastal bluff scrub habitat as well as 3.87 acres of non-vegetated rocky shore (Exhibit 5.3-3, *Biological Resource Preservation Areas Within Resort Hotel Area*). This Conservation Area is approximately 150 feet away from any Resort Hotel development and adjoins the County's Point Vicente Fishing Access Area. Although permitting recreational fishing for fin fish, this reserve designation would restrict certain active uses below the Resort Hotel such as commercial fishing, the collection of invertebrates, and the disturbance of plants, birds, and other animal life. This level of protection would ensure the on-going conservation of this ecosystem and "sustainable" use of coastal resources within this stretch of the Rancho Palos Verdes shoreline. In order to preserve the integrity of the steep coastal bluff, there are no proposed trails within this Conservation Planning Area.

The steep cliffs of the RHA are also expected to provide a narrow linkage for wildlife east and west of the site. As a part of the LPHCP, these areas will be maintained as permanent open space and would not be impacted. The Project design of the UPVA area has also maintained a connection to the open space areas offsite. The

[2] Long Point Resort Permit Documentation, prepared by FORMA, June 23, 2000, page 3-12.

preserved habitat areas onsite and the proposed coastal sage scrub creation areas on the UPVA site are also expected to provide for local movement on and offsite. The UPVA site is discussed further below.

0 150 300

SOURCE: BONTERRA CONSULTING

RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Biological Resources Preservation/Enhancements Within Resort Hotel Area

Exhibit 5.3-3

Point Vicente
Interpretive Center

Rancho Palos Verdes
City Hall

U.S.Coast Guard Site
(Not a Part)

Palos Verdes Drive South

2

3

4

5

LEGEND

CONSERVATION ZONES

- UNGRADED CONSERVED EXISTING HABITAT
- INITIAL TAKE
- UNGRADED NEW HABITAT
- GRADED NEW HABITAT

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

0 125 250

SOURCE: FORMA

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Biological Resources Preservation/Enhancements Within Upper Point Vicente Area

Exhibit 5.3-4

Upper Point Vicente Area

The UPVA contains 19.54 acres of existing coastal sage scrub habitat. Construction of the proposed Project would remove 4.91 acres of habitat. The remaining 14.63 acres of existing habitat are proposed to be retained and where appropriate, enhanced with new native vegetation.

The UPVA Conservation Area, referred to as the Upper Point Vicente Coastal Sage Scrub Habitat (PA 1-B) would be implemented to preserve and increase coastal sage scrub habitat by conserving 14.63 acres and creating 16.80 acres of coastal sage scrub habitat (Exhibit 5.3-4, *Biological Resource Preservation/Enhancement Areas Within Upper Point Vicente Area*). The LPHCP would utilize a combination of methods including the conservation of existing onsite habitat, the creation of new habitat in areas that are currently marginally-developed or underdeveloped yet have limited value (i.e., former agricultural areas, slopes with non-native grass species, etc.), and the enhancement of the existing degraded habitat areas to obtain significantly improved habitat values.

Summary

The LPHCP would provide for native habitat conservation and enhancement within Conservation Planning Areas in the RHA and UPVA. In addition, the program would include 16.80 acres of restored and newly created habitat within Recreation Areas of the UPVA as mitigation for impacts to 4.91 acres of coastal sage scrub habitat in the UPVA and 0.10 acre of coastal bluff scrub in the RHA.

Overall, the LPHCP would provide for the creation of 16.80 acres of new coastal sage scrub habitat area (UPVA Conservation Planning Area and Recreation Area). This, combined with the 14.63 acres of existing coastal sage scrub habitat, the 4.44 acres of coastal bluff scrub habitat, and the 3.87 acres of rocky shore/coastal bluff habitat that would be retained, would result in the protection and creation of a total of 39.74 acres of coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff habitat. The 16.80 acres of restored and newly created habitat represents a replacement ratio of 3.4 to 1 (3.4 acres restored/created habitat for every 1 acre removed) for the 5.00 acres of coastal sage scrub and coastal bluff scrub impacted by the proposed Project. With the addition of 22.94 acres of preserved coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff to the mitigation program, the compensation ratio is over 7 to 1, far above typical mitigation standards of 2 to 1 and 3 to 1.

Specific details of the LPHCP including design concepts and plant palettes, are discussed in the Long Point Resort Permit Documentation (Forma 2000) available for review at the Rancho Palos Verdes City Hall. A revegetation program is proposed in accordance with the landscape palette developed for the LPHCP.

The stated intent of the Habitat and Conservation Program is to ensure compliance with FESA and to be consistent with the City's NCCP, when adopted. If the City's NCCP is not adopted prior to development within the Project area, any ground-disturbing activities affecting either areas occupied by the coastal California gnatcatcher or areas occupied by state- or federally-listed Threatened or Endangered species would require compliance with the FESA and/or CESA.

As previously noted, the City's NCCP is still in the process of preparation and must be approved by state and federal agencies. Once approved, the City's NCCP will establish Biological Reserve Area(s) in the City to provide for the protection of certain species observed on the Project site (i.e., the federally-listed Threatened coastal California gnatcatcher, sensitive native plant communities [e.g., coastal sage scrub], and other sensitive species [e.g., coastal cactus wren and loggerhead shrike]).

As the proposed Long Point Resort Project is being considered during the interim phase of the NCCP development, the City and USFWS may approve incidental habitat loss associated with the proposed development, provided the loss (1) does not cumulatively exceed the five percent guideline for the loss of coastal sage scrub, (2) does not preclude connectivity between areas of high habitat values, (3) will not preclude or prevent the preparation of the Subregion NCCP, (4) has been minimized and mitigated to the maximum extent practicable, (5) will not appreciably reduce the likelihood of the survival and recovery of the listed species in the wild, and (6) is incidental to otherwise lawful activities. However, at the present time, there are no remaining acres of coastal sage scrub in the City NCCP subregion that can be removed under the 4(d) special rule. Therefore, it is unlikely that the proposed Project can be processed through Section 4(d) of the FESA unless the projects that have already received 4d authorization do not proceed or USFWS issues another Biological Opinion that allows for the additional take of habitat within the subregion, which at this time appears unlikely. Therefore, mitigation/ compensation for the loss of coastal sage scrub and gnatcatchers would need to be coordinated with the USFWS and another federal responsible agency involved in the Project through Section 7 of the FESA or with the USFWS through Section 10 of the FESA.

IMPACTS

The determination of impacts in this analysis is based on a comparison of maps depicting Project grading limits and maps of onsite biological resources. All construction activities, including staging and equipment areas, are assumed to be contained within the limits of grading. Both direct and indirect impacts on biological resource have been evaluated. Direct impacts are those that involve the initial loss of habitats due to grading and construction. Indirect impacts are those that would

be related to disturbance from construction activities (e.g., noise, dust) and use of the Project site.

Biological impacts associated with the proposed Project were evaluated with respect to the following special status biological issues:

- Federally- or state-listed Endangered or Threatened species of plant or wildlife;
- Non-listed species that meet the criteria in the definition of Rare or Endangered in the California Environmental Quality Act (CEQA) Guidelines;
- Streambeds, wetlands, and their associated vegetation;
- Habitats suitable to support a federally- or state-listed Endangered or Threatened species of plant or wildlife;
- Species designated as California Species of Special Concern or federal Species of Concern;
- Habitat, other than wetlands, considered special status by regulatory agencies (USFWS, CDFG) or resource conservation organizations; and
- Other species or issues of concern to regulatory agencies or conservation organizations.

The actual and potential occurrence of these resources within the Project vicinity was correlated with the following significance criteria to determine whether the impacts of the proposed Project on these resources would be considered significant.

Significance Criteria

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form which includes questions relating to biological resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- If the project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional

plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service (refer to Impact Statement 5.3-1).

- If the project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Game and Wildlife Service (refer to Impact Statement 5.3-2).

- If the project has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (refer to Section 10.0, *Effects Found Not To Be Significant*).

- If the project interferes substantially with the movement of any native or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites (refer to Impact Statement 5.3-3).

- If the project conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (refer to Impact Statement 5.3-4).

- If the project conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (refer to Impact Statement 5.3-5).

Section 15065(a), *Mandatory Findings of Significance*, of the CEQA Guidelines states that a project may have a significant effect on the environment if "...the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species...".

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would substantially diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, State or Federal resource conservation plans, goals, or regulations. Impacts are sometimes locally adverse but not significant because,

although they would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

Section 15380 of CEQA indicates that a lead agency can consider a non-listed species to be Rare or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare and Endangered listed in Section 15380 of CEQA.

The actual and potential occurrence of these resources within the Project vicinity was correlated with the previously identified significance criteria to determine whether the impacts of the proposed Project on these resources would be significant.

Potential impacts are grouped below according to topic. The numbered mitigation measures at the end of this section directly correspond with the numbered impact statements.

SPECIAL STATUS BIOLOGICAL RESOURCES

5.3-1 *Project implementation may affect species identified as special status. Analysis has concluded that impacts would be mitigated to a less than significant level.*

Plants

Project implementation may result in impacts on special status plant species. Three special status species were observed on the Project site during previous focused surveys (Dudek 1999). These species include: island green dudleya, California box-thorn, and woolly sea-blite.

Other species potentially present in the Project area include aphanisma, south coast saltscale, Catalina mariposa lily, Lewis' evening primrose, Catalina mariposa lily, Catalina crossosoma, Santa Catalina Island desert-thorn, and Lyon's pentachaeta.

Island Green Dudleya. The island green dudleya is present in the mixed coastal sage scrub (UPVA) and the southern coastal bluff scrub (RHA). Impacts on the island green dudleya would be considered significant since this plant is considered Rare, Threatened, or Endangered in California and elsewhere by the CNPS and meets the criteria in the definition of Rare or Endangered in CEQA. Impacts on this species would be reduced to less than significant levels with implementation of recommended mitigation which includes the following:

- Conduct a pre-construction survey;
- Seed and corm collection and revegetation; and
- Preparation of a Mitigation Plan including maintenance and monitoring requirements.

California Box-thorn and Woolly Sea-blite. The California box-thorn is present in the mixed coastal sage scrub (UPVA) and the southern coastal bluff scrub (RHA). The woolly sea-blite is present in the southern coastal bluff scrub (RHA). Although impacts on these plants are considered less than significant since these plants are considered relatively common in the region, these plants would be included in the seed mixes for revegetation of coastal bluff scrub (FORMA, June 23, 2000 and BonTerra, February 2001).

Other Species. Direct impacts on the other special status plant species potentially present in the Project area (i.e., aphanisma, south coast saltscale, Catalina crossosoma, Santa Catalina Island desert-thorn, and Lyon's pentachaeta) would be potentially significant. All of these species are listed as CNPS List 1, federal Species of Concern, or state and federally listed as Endangered. Impacts on these species would be reduced to less than significant levels with implementation of recommended mitigation which includes the following:

- Conduct pre-construction special status plant surveys; and

- Develop mitigation, if warranted, which may include avoidance of the populations, relocation, or purchase of areas off-site containing populations of the impacted species for inclusion in open space areas.

Wildlife

The proposed Project would result in the loss of potential habitat for several special status wildlife species potentially present on the Project site. For those species expected to occur, potential impacts were evaluated for the habitat which the species is expected to occupy.

Refer to the *Indirect Impacts* section below for a discussion regarding the Project's indirect impacts on wildlife species.

Invertebrates

Palos Verdes Blue Butterfly. The UPVA provides a very limited amount of potentially suitable habitat for the federally-listed Endangered Palos Verdes blue

butterfly. However, focused surveys would be required to determine the presence or absence of this species on the Project site. If present, any impacts on this species would be considered significant. Compliance with recommended mitigation (i.e., conducting focused surveys and compliance with the FESA) would be required to avoid any impacts on this species. Therefore, a less than significant impact would occur with mitigation. It should be noted that in the event the focused surveys determine that this species occurs on the UPVA, then federal take authorization would be required through either Section 7 consultation or Section 10a of the FESA. If this species is not found to occur on the UPVA, no authorization to impact this species would be necessary and no mitigation would be warranted.

El Segundo Blue Butterfly. The El Segundo blue butterfly, a federally-listed Endangered species, is not expected to occur on the UPVA due to a lack of suitable habitat. Therefore, construction of the Project would not result in any impacts on this species.

Amphibians

Western Spade foot Toad. The western spadefoot toad has a low potential to occur on the Project site. This species is not listed as Threatened or Endangered by state or federal resource agencies. Since the RHA supports only a limited amount of suitable habitat for this species, only a portion of which will be impacted, any population present would not be substantial enough to be considered significant.

Reptiles

Silvery Legless Lizard, Coastal Western Whiptail, San Bernardino Ringneck Snake, and San Diego Coast Horned Lizard. Although these special status reptile species potentially occur on the Project site, none of these species are listed as Threatened or Endangered by state or federal resource agencies. However, the San Diego horned lizard is designated as one of the target species for the Palos Verdes Peninsula NCCP. Potential habitat for these species consists primarily of the scrub habitats north of Palos Verdes Drive South in the UPVA (see Table 5.3-3). Project implementation would result in a loss of 4.91 acres of scrub habitats that may support one or more of these species. The loss of potential habitat for these species would be considered less than significant because of the small size of the potential habitat that would be impacted compared to the large amount of various habitats types available for these species throughout California based on the range/ distribution of these species.

Birds

Southwestern Willow Flycatcher, California Least Tern, and Least Bell's Vireo. These species are not expected to occur on the Project site due to lack of suitable

habitat. Therefore, Project implementation would not result in any impacts on these species.

Two of the remaining three species, the California brown pelican and coastal California gnatcatcher have been observed on the Project site.

California Brown Pelican. The proposed Project would not directly impact roosting or breeding habitat for the pelican since the rocky shore habitat on the RHA that is used for roosting would not be impacted. Therefore, no mitigation would be required for the California brown pelican. Impacts as a result of an increase in public use are primarily indirect in nature and are discussed under indirect impacts.

Coastal California Gnatcatcher. The coastal California gnatcatcher is known to occur in the coastal sage scrub on the UPVA. Four pairs of gnatcatchers were observed on the UPVA during surveys in 1998 and may be impacted by construction of the proposed Project by both direct (habitat removal) and indirect (disturbance) effects. These impacts are considered significant. The Long Point Habitat and Conservation Program (LPHCP) has been developed and would be implemented to reduce these impacts to a level of less than significant.

Peregrine Falcon. The peregrine falcon is known to occur in the vicinity and has a high potential to occur on the Project site. Suitable foraging habitat for the peregrine falcon is present on the Project site; however, due to the small size of the Project, relative to the amount of available foraging habitat in the region, the potential loss of foraging habitat for this species is not considered significant. Potentially suitable nesting habitat is present along the cliffs in the RHA. Since the cliff area (RHA) would not be impacted by the proposed Project, the Project would not directly impact nesting habitat for the peregrine falcon.

A variety of bird species that are considered special status, but are not listed as Threatened or Endangered by state or federal resources agencies, occur or potentially occur in the Project region. These species include four that were observed during surveys of the Project site. These are the coastal cactus wren, western yellow warbler, loggerhead shrike, and double-crested cormorant.

Coastal Cactus Wren. The coastal cactus wren occupies the coastal sage scrub habitats on the UPVA and is designated as one of the target species for the Palos Verdes Peninsula NCCP. Although the Project would result in the loss of 4.91 acres of scrub habitat potentially supporting this species, this impact would be considered less than significant because of the small size of the habitat impacted relative to the amount of habitat available for this species in Southern California.

Western Yellow Warbler. The Project site does not provide nesting habitat for the western yellow warbler, and only migrant yellow warblers can be expected to occur. Therefore, Project implementation would not result in any impacts on this species.

Loggerhead Shrike. The loggerhead shrike has the potential to use the majority of the Project site. However, implementation of the proposed Project is not expected to reduce the value of the Project site for the loggerhead shrike to any great extent since golf courses can provide suitable habitat for this species. Therefore, a significant impact is not anticipated in this regard and no mitigation would be required.

Double-crested Cormorant. The double-crested cormorant is only expected to use the rocky shore and cliff part of the RHA for roosting. As Project implementation would not impact the rocky shore and cliff part of the RHA, a significant impact is not anticipated in this regard. Impacts as a result of an increase in public use are primarily indirect in nature and are discussed under indirect impacts.

Tricolored Blackbird and California Horned Lark. The proposed Project would result in a loss of 22.55 acres of grassland and agricultural areas that could potentially be used for foraging by the tricolored blackbird and California horned lark. Even if present, the loss of 22.55 acres of occupied habitat by either of these two species would not be considered significant because of the small size of the area impacted relative to the amount of habitat available for these species in California.

Southern California Rufous-crowned Sparrow. The proposed Project would result in a loss of 4.91 acres of scrub habitats that could potentially be used by the southern California rufous-crowned sparrow. However, the loss of 4.91 acres of scrub would not be considered significant because this species is known to be common in Southern California, throughout a variety of habitat types and the limited Project impacts are not expected to restrict the range of this species.

Yellow-breasted Chat. This species (for nesting) would not be expected to occur on the Project site due to a lack of suitable habitat, although it may occur as a migrant. Therefore, Project implementation would not result in any impacts on this species.

California Gull. The Project site provides suitable roosting habitat and limited foraging opportunities for the California gull. However, Project implementation would not substantially reduce these resources on the Project site for the California gull. Therefore, Project implementation would not result in any impacts on the California gull that would be considered as significant.

Elegant Tern. The elegant tern would not be expected to occur on the Project site due to a lack of suitable habitat, although the elegant tern may be seen foraging

offshore from the Project site. Therefore, Project implementation would not result in any impacts on this species.

Cooper's Hawk, Sharp-shinned Hawk, Short-eared Owl, Burrowing Owl, Ferruginous Hawk, Northern Harrier, White-tailed Kite, Merlin, Peregrine Falcon, and Prairie Falcon. Project implementation would result in a diminished capacity of the Project site to provide foraging opportunities for these species. This impact would contribute to the loss of foraging habitat for these ten raptor species. However, it is not considered significant due to the relatively large amount of similar foraging habitat available elsewhere in the coastal Los Angeles County basin area.

The Cooper's hawk, burrowing owl, northern harrier, white-tailed kite, prairie falcon, peregrine falcon, and osprey have potential to nest on the Project site. In the event an active raptor nest (common or special status species) were found on the Project site, the loss of the nest would be considered a violation of the California Fish and Game Code Sections 3503, 3503.5, and 3513. The loss of any active raptor nest occurring on the Project site would be considered significant. The potential impact on these species would be reduced to less than significant with the implementation of specified mitigation which requires that a survey be conducted and avoidance measures implemented if an active nest is found.

Mammals

Pacific Pocket Mouse. One federally-listed Endangered mammal species, the Pacific pocket mouse, has a very limited potential to occur on the Project site. Focused surveys for the Pacific pocket mouse would be required to determine the presence or absence of this species on the Project site. If the focused surveys find that this species occurs on the Project site, then federal take authorization would be required. Regulatory authorization can occur through either Section 7 or 10 of the FESA. The permitting process would require the preparation of a Biological Assessment and an LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species or purchase of off-site habitat for this species. If this species is not found to occur on the Project site, no FESA authorization to impact this species would be necessary and no mitigation would be warranted.

Pallid Bat, Pale Big-eared Bat, California Mastiff Bat, Small-footed Myotis, and Yuma myotis. The proposed Project would impact both foraging and potentially suitable roosting habitat for these bat species. The loss of foraging habitat for these bat species would contribute to the ongoing regional and local loss of foraging habitat for these species. Since these species are considered relatively common

in the Project region, impacts on these species are not considered significant, and no mitigation would be required.

San Diego Black-tailed Jackrabbit and San Diego Desert Woodrat. The proposed Project would impact suitable habitat for the jackrabbit and woodrat. Since these species are considered relatively common in the Project region, impacts on these species are not considered significant and no mitigation would be required.

SENSITIVE NATURAL COMMUNITIES/HABITATS

5.3-2 *The proposed Project may impact portions of the Resort Hotel and Upper Point Vicente Areas which are habitat for referenced sensitive species. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*

Refer to the *Indirect Impacts* section below for a discussion regarding the Project's indirect impacts on sensitive natural communities habitats.

Vegetation

A total of 132.70 acres of native and non-native vegetation types, including developed areas, would be impacted by the proposed Project. These areas are discussed below, summarized in Table 5.3-4, *Vegetation Types Impacted by The Proposed Project*, and illustrated in Exhibits 5.3-5, *Biological Resource Impacts Within Resort Hotel Area*, and 5.3-6, *Biological Resource Impacts Within Upper Point Vicente Area*.

Scrub Communities. A total of 4.91 acres of scrub communities would be impacted in the UPVA, which includes mixed coastal sage scrub (including burned and disturbed), disturbed chenopod scrub, and southern cactus scrub. Impacts on these vegetation types would be considered significant because this habitat type has been reduced up to 80 percent of its historic coverage throughout Southern California and the potential for this habitat to support special status species, especially the gnatcatcher. Of the 4.91 acres of scrub communities impacted by the proposed Project, 3.17 acres represent areas disturbed by either fire, past human disturbances, or invasion by non-native plant species. The disturbed communities typically require less mitigation or compensations through the CEQA and FESA permitting process. However, the Project Applicant has gone beyond that which is typically required and has provided for enough mitigation in the LPHCP to mitigate for these areas at the same ration as the non-disturbed scrub areas. The LPHCP would be implemented to reduce all impacts to scrub communities to a level of less than significant.

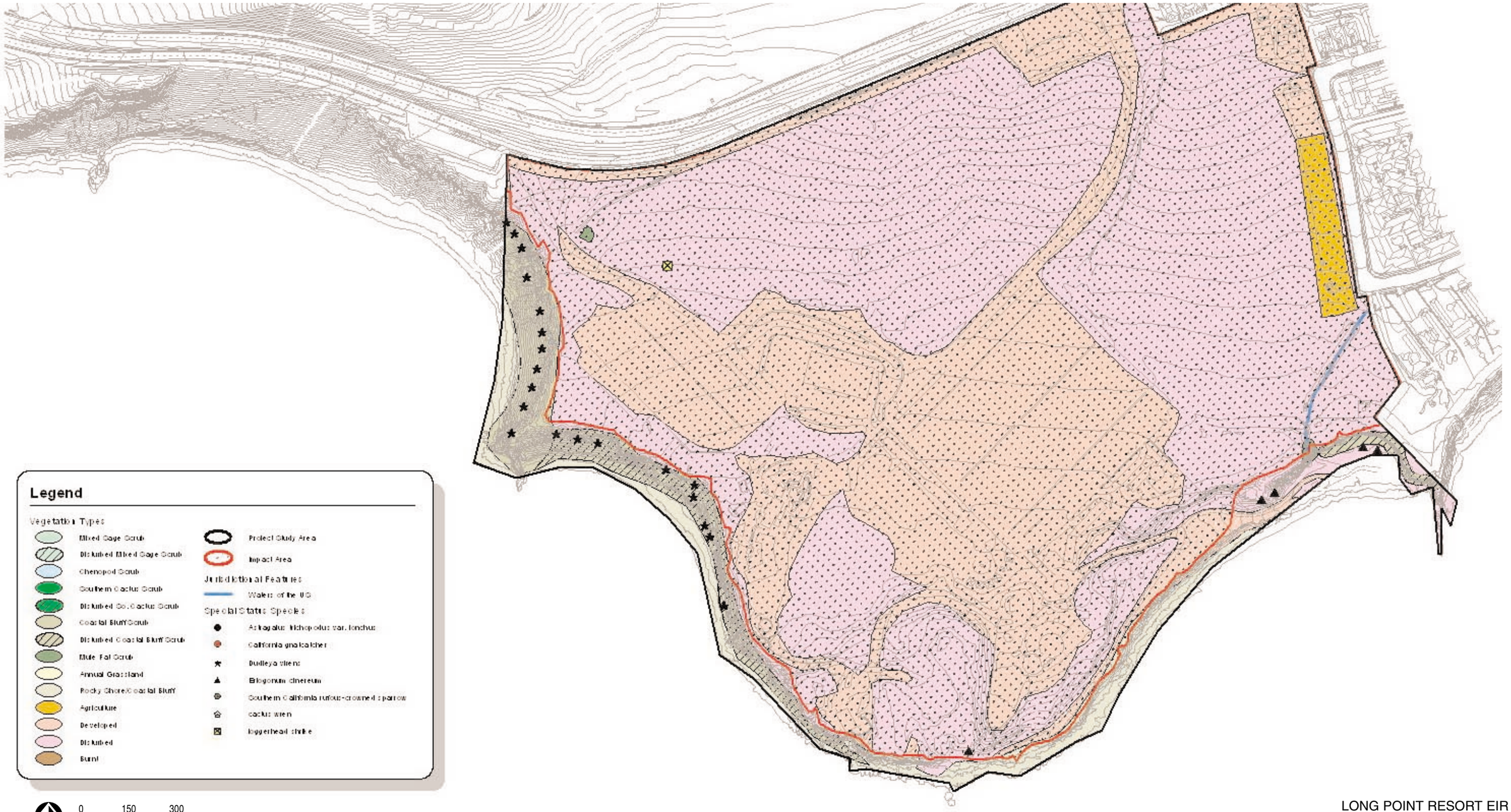
Coastal Bluff Scrub. A total of 0.10 acre of coastal bluff scrub and disturbed coastal bluff scrub would be impacted. Impacts on these vegetation types would be considered significant due to the loss of this vegetation type in southern California and the potential for this habitat to support special status species. The Applicant has prepared LPHCP which would be implemented to reduce these impacts to a level of less than significant. Mitigation has also been identified which involves modification of the development plan to avoid any affect to the Coastal Bluff Scrub area. If this area is avoided through slight Project modifications, no impacts to this habitat type would occur, and impacts would be less than significant.

Mule Fat Scrub. One small area (0.02 acre) of mule fat scrub located on the western portion of the RHA site would be impacted by the proposed Project. This area is not within an area identified as ACOE and/or CDFG jurisdiction. Therefore, impacts to this area of mule fat scrub would not be considered significant.

An additional area of 0.03 acre of mule fat scrub would be impacted from construction of the proposed Project in the southeast portion of the RHA. This area of mule fat scrub occur in association with an area identified as a “waters of the US” (see Exhibit 5.3-1). Impacts on this area of mule fat scrub vegetation would be considered significant due to the loss of this vegetation type in association with a

TABLE 5.3-4
VEGETATION TYPES IMPACTED BY THE PROPOSED PROJECT

Vegetation Type	Upper Point Vicente Area (acres)	Resort Hotel Area (acres)	Total (acres)
Mixed Coastal Sage Scrub	0.41	0.00	**0.41**
Disturbed Mixed Coastal Sage Scrub	0.46	0.00	**0.46**
Burnt Disturbed Mixed Coastal Sage Scrub	0.01	0.00	**0.01**
Disturbed Chenopod Scrub	2.70	0.00	**2.70**
Southern Cactus Scrub	1.33	0.00	**1.33**
Disturbed Southern Cactus Scrub	0.00	0.00	**0.00**
Coastal Bluff Scrub	0.00	0.09	**0.09**
Disturbed Coastal Bluff Scrub	0.00	0.01	**0.01**
Mule Fat Scrub	0.00	0.05	**0.05**
Annual Grassland	18.07	0.00	**18.07**
Rocky Shore/Coastal Bluff	0.00	0.08	**0.08**
Agricultural	3.21	1.27	**4.48**
Disturbed	6.89	54.93	**61.82**
Developed	6.41	36.40	**42.81**
Disturbed Areas Outside Study Area	0.38	0.00	**0.38**
Total	**39.87**	**92.83**	**132.70**



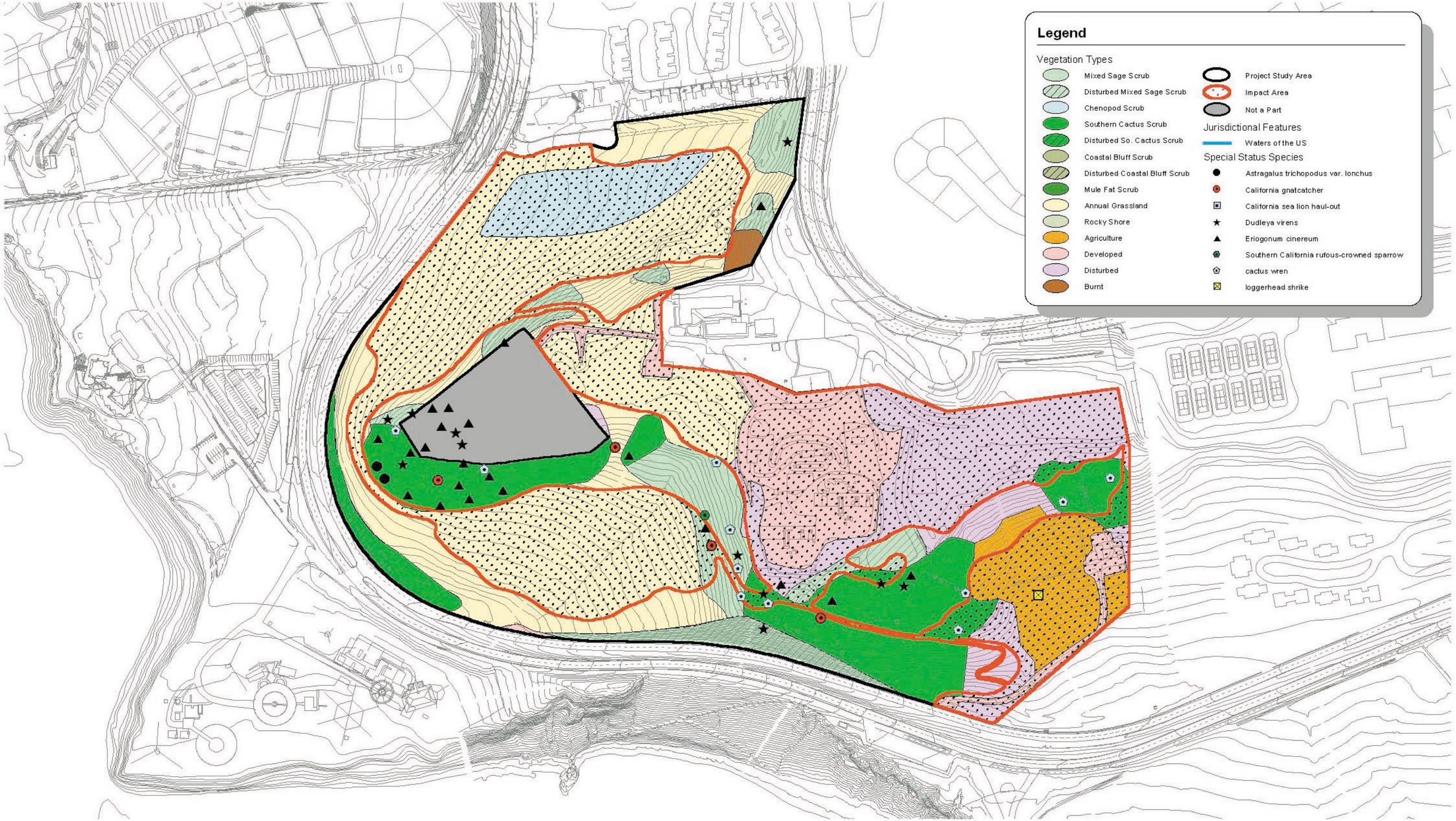
SOURCE: BONTERRA CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Biological Resources Impacts Within the Resort Hotel Area

Exhibit 5.3-5



0 150 300

SOURCE: BONTERRA CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Biological Resources Impacts Within Upper Point Vicente Area

Exhibit 5.3-6

riparian system subject to the jurisdiction of the ACOE and CDFG. Mitigation to reduce these impacts to a level of less than significant would consist of avoiding the jurisdictional area or restoring riparian habitat in the required ratio at either an onsite or offsite mitigation site as identified in the Project Applicant's ACOE and CDFG permit/agreement. The ACOE and CDFG typically require a minimum of 1:1 replacement ratio.

Annual Grassland. A total of 18.07 acres of annual grassland would be impacted by Project implementation. Impacts on this vegetation type would not be considered significant, since this vegetation type is abundant and is considered to have a low biological value.

Rocky Shore. The rocky shore would not be directly impacted by the proposed Project as the Project's development area would not extend into this habitat.

Coastal Bluff. A small area (0.08 acre) of unvegetated coastal bluff would be impacted by Project implementation. From a biological perspective, this impact would not be considered significant due to the lack of native vegetation covering the slopes in this small area.

Agricultural. A total of 4.48 acres of agricultural areas would be impacted by Project implementation. Impacts on this vegetation type would not be considered significant, since this vegetation type is considered to have a low biological value.

Disturbed and Developed. A total of 104.63 acres of disturbed vegetation and developed areas would be impacted by Project implementation. Impacts on these vegetation types would not be considered significant since this vegetation type is considered to have a low biological value.

Wildlife Impacts

To assess impacts on wildlife, the total impact on a given vegetation type that provides habitat for wildlife was evaluated. Exhibits 5.3-5, *Biological Resource Impacts Within Resort Hotel Area*, and 5.3-6, *Biological Resource Impacts Within Upper Point Vicente Area*, illustrate the vegetation types (i.e., wildlife habitat) that will be impacted as a result of construction of the proposed Project. The following discussion of wildlife impacts focuses on the common species occurring on the Project site. Impacts on special status wildlife species are discussed separately in Impact Statement 5.3-1 above.

General Habitat Loss, Wildlife Loss, and Habitat Fragmentation. Construction of the proposed Project would result in the loss of approximately 90 acres of native and non-native habitats that provide valuable nesting, foraging, roosting, and denning opportunities for a wide variety of wildlife species. Removing or altering habitats on

the Project site would result in the loss of small mammals, reptiles, amphibians, and other animals of slow mobility that live in the proposed Project's direct impact area. More mobile wildlife species now using the Project site would be forced to move into remaining areas of open space, consequently increasing competition for available resources in those areas. This situation would result in the loss of individuals that cannot successfully compete. However, direct impacts on the Project site would be considered less than significant because they would not significantly reduce wildlife populations in the region.

Construction of the proposed Project would also further fragment existing wildlife habitat on and adjacent to the Project site. Both common and special status amphibian, reptile, and small mammal species populations on and in the vicinity of the Project site would have reduced opportunities for genetic exchange. Birds and larger mammal species, which are more capable of crossing larger areas of inhospitable habitat would be affected to a lesser extent. Specifically, Project implementation would displace many individuals of a wide range of species that currently use the site into native and non-native habitats that would be retained in the: 1) open space within the Project site; 2) landscaping vegetation of the golf course and around the hotel grounds; and 3) remaining areas of open space in the vicinity of the Project site. In addition, appropriate habitat for some species may not be available on the Project site after construction. As a result, some species may be extirpated from the Project site.

The loss of habitat, loss of wildlife, wildlife displacement, and habitat fragmentation that would result from construction of the proposed Project would not be considered significant because these impacts would not substantially diminish habitat for wildlife in the region nor would it be anticipated to reduce any specific wildlife populations in the region to below self-sustaining numbers.

Indirect Impacts

Indirect impacts are those related to disturbance by construction (such as noise, dust, and urban pollutants) and long-term use of the Project site and its effect on the adjacent habitat areas. The indirect impact discussion below includes a general assessment of the potential indirect affects (noise, dust and urban pollutants, lighting, human activity, and non-native species introduction), of the construction and operation of the UPVA and RHA. Particular focus is placed on the indirect effects on the natural open space area on the UPVA and RHA, collectively referred to as edge effects.

Edge effects occur where development, including roads, takes place adjacent to natural open space areas. Edge effects threaten the ecological integrity, recreational experience, aesthetic quality, public investment, and safety operations of preserved natural areas. When development is configured in a manner that

creates a high ratio of development edge to natural open space, there is an increase in the potential impacts caused by human use (indirect impacts). These indirect effects that address both the short-term construction and long-term use of the Project site are outlined below.

Noise Impacts. Noise levels in the Project site would increase over present levels during construction of the proposed Project. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, roosting, and denning activities for a variety of wildlife species. Because most species in the vicinity of the Project site are not listed as Threatened or Endangered by state or federal resource agencies, these impacts are not considered significant. However, the coastal California gnatcatcher, raptor species, and cliff nesting and roosting species (i.e., peregrine falcon, California gull, osprey, California brown pelican, and double-crested cormorant) either occur or potentially occur within proposed natural open space areas on the UPVA and RHA sites. These species would incur temporary short-term impacts from construction noise, if present in the vicinity of the Project site, and may be temporarily displaced due to these disturbances. Indirect noise impacts on these species would be considered significant because these species are protected by federal and state wildlife agencies. Impacts on these species would be reduced to less than significant levels with implementation of specified mitigation requiring that the most noise intensive construction activities, if conducted during the bird nesting season, be conducted outside of a 100-foot buffer area around identified nests.

Noise would also increase over present levels with implementation of the proposed Project resort and recreational uses. However, the RHA is currently used by the movie industry and the UPVA is located adjacent to the Rancho Palos Verdes City Hall. Further, Palos Verdes Drive South bisects the two Project areas (i.e., the UPVA and RHA). Therefore, the Project site is currently periodically disturbed by noise. The UPVA is proposed to be developed as a golf course. The RHA is proposed to be developed into a hotel and recreational facilities. Although noise adjacent to the Project site would increase over current noise levels, and would become more constant, this increase would not be such that it would substantially reduce common wildlife populations in the region. Therefore, a significant impact is not anticipated in this regard.

Species that roost or nest along cliffs and the rocky shore of the proposed open space areas may be indirectly impacted by the increase in noise on the RHA. This impact would be potentially significant. Implementation of the specified mitigation requiring that a landscaping buffer be planted along the boundary of developed land uses would reduce this impact to less than significant.

Increased Dust and Urban Pollutants. Grading activities would disturb soils and result in the accumulation of dust on the surface of the leaves of trees, shrubs, and

herbs in the natural open space areas within the UPVA and RHA. The respiratory function of the plants in these areas would be impaired when dust accumulation is excessive. This indirect effect of construction of the proposed Project on the native vegetation in the immediate vicinity of the construction area is not considered significant, since it would not reduce plant populations below self-sustaining levels. Therefore, no mitigation would be required.

Additional impacts on biological resources in the area may occur as a result of changes in water quality. Urban runoff from the proposed Project containing petroleum residues and the potential for improper disposal of petroleum and chemical products from construction equipment (temporary) or infrastructure areas (i.e., vehicles, improper disposal of chemicals) (permanent) could affect water quality onsite and offsite. This, in turn, could affect populations of aquatic species including common and special status species. Water quality could also be affected by runoff of nutrients from landscape features of the proposed Project, particularly the golf course. These impacts are considered potentially significant since runoff could indirectly impact areas containing important biological resources (i.e., coastal sage scrub in the UPVA open space and rocky shore areas in the RHA). These impacts would be reduced to less than significant with the implementation of mitigation specified in Section 5.6, *Hydrology and Drainage*. Specifically, the mitigation would require that the Applicant apply for coverage under the State Water Resources Control Board's General Permit for Storm Water Discharge Associated with Construction Activity and comply with all of the provisions of the permit, including the development of a Storm Water Pollution Prevention Plan (which includes provisions for the implementation of Best Management Practices and erosion control measures).

Night Lighting. Lighting of the infrastructure would inadvertently result in an indirect effect on the behavioral patterns of nocturnal and crepuscular (i.e., active at dawn and dusk) wildlife that are present along the boundaries of the urban and natural areas of the UPVA and RHA. Of particular concern is the effect on small ground-dwelling animals that use the darkness to hide from predators, and on owls, which are specialized night foragers. In addition, the increase in night lighting could discourage nesting and roosting along the cliffs and rocky shore adjacent to the RHA. This increased lighting, in conjunction with the increased noise and habitat loss, would be considered potentially significant since it is adjacent to cliff nesting and roosting habitat. Implementation of the specified mitigation requiring that a lighting plan be prepared which directs lighting away from sensitive biological resources would reduce this impact to less than significant.

Human Activity. The increase in human activity (i.e., noise, foot traffic) would increase the disturbance of natural open space remaining on or adjacent to the UPVA and RHA. Human disturbance could disrupt normal foraging and breeding

behavior of wildlife remaining in these and adjacent areas diminishing the value of these preserved open space habitat areas.

Of particular concern is the location of golf course features within and adjacent to coastal sage scrub preservation and creation areas in the UPVA. Although trails will be established within the golf course area to keep golfers out of the natural areas, the proposed Project has the potential for golfers to enter the natural areas to retrieve lost balls or other reasons. This disturbance would be considered potentially significant since it may significantly impact habitat protected by state and federal resource agencies. Implementation of mitigation including the following measures would reduce this impact to less than significant:

- Develop a Fencing Plan;
- Develop a Signage Plan; and
- Establish a transition zone to buffer natural habitats from developed areas.

Non-native Species Introduction. The native habitat types within the natural open space areas of the UPVA and RHA would be subject to greater pressure from non-native plant species within the developed portions of the UPVA and RHA. Areas that have undergone disturbance generally contain a high number of non-native grasses and forbs that can successfully out compete the native plants in the region. This will be especially true after initial Project grading of both the UPVA and the RHA. Should non-native plants establish themselves in these areas prior to the establishment of native plant species or non-native/non-invasive plant species in the landscape areas, the non-natives may become invasive in the natural open space areas. Left uncontrolled, these “weeds” may begin encroaching into the natural open space areas of the UPVA and RHA that were not directly impacted during Project grading. These impacts could become significant if uncontrolled. The implementation of the Long Point Habitat and Conservation Program which provides for the planting of native plant species will reduce this potential impact to less than significant.

WILDLIFE MOVEMENT

5.3-3 *Project implementation may interfere with the movement of a native resident or migratory wildlife species. Analysis has concluded that impacts are less than significant.*

The proposed development of the UPVA and RHA would not impact wildlife corridors, by definition, but would affect local travel routes. This may result in reduced connectivity between the open spaces to the east, north, and west of the

UPVA. The steep cliffs of the RHA that are expected to provide a narrow linkage for wildlife east and west of the site will be maintained as permanent open space and would not be impacted. The Project design of the UPVA area has maintained a connection to the open space areas offsite. In addition, the preserved habitat areas onsite and the proposed coastal sage scrub creation areas on the UPVA site are expected to provide for local movement on and offsite. The discussion of preserved and created coastal sage scrub habitat on the UPVA site is discussed further below under the LPHCP.

LOCAL POLICIES/ORDINANCES

5.3-4 *Analysis has concluded that there are no impacts to any local policies or ordinances protecting biological resources, because there are no approved local policies and/or ordinances within the City of Rancho Palos Verdes regarding the protection of biological resources.*

There is currently no adopted Habitat Conservation Plan, NCCP, or other approved local, regional, or state habitat conservation plan that includes the Project site. Therefore, no impacts to these adopted plans are expected to occur as a result of Project implementation.

CUMULATIVE IMPACTS

5.3-5 *Cumulative development (including the proposed Project) in the Project area may impact the area's biological resources. Analysis has concluded that Project implementation would not result in significant biological impacts with implementation of the specified mitigation and the City's development of the NCCP program.*

When viewed in conjunction with other major developments planned for the Rancho Palos Verdes, the loss of coastal sage scrub and other native vegetation, as well as the loss of wildlife habitat and the displacement of wildlife species in the Project area, could be considered a negative cumulative effect. However, cumulative impacts to coastal sage scrub habitat are currently being mitigated on a project-by-project basis and in accordance with the City's NCCP program that is currently being developed.

In the absence of an approved NCCP program, cumulative impacts to coastal sage scrub by the proposed Project and recently approved projects by the City will be mitigated to a level of less than significant through mitigation requirements (preservation/enhancement/restoration) of the 4 (d) special rule process and the proposed LPHCP.

As it is intended, the NCCP can offset cumulative impacts in the region through the preservation and adaptive management of large reserve systems, which provide habitat for special status species. As the lead agency for the City of Rancho Palos Verdes subregion NCCP, the City has contributed both time and money toward its development and implementation, which include the process of developing a habitat preserve through land acquisition. The City is currently in the process of identifying the preferred preserve design for the program with the help of the major landowners, local government, state and federal resources agencies, and environmental organization representatives. The proposed Project is consistent with the preferred preserve design and the Project Applicant is a participating landowner in the NCCP program. With the Project Applicant's proposed mitigation for biological impacts (LPHCP), the previously approved mitigation plans through the 4(d) process, and the eventual approval and adoption of the City of Rancho Palos Verdes subregion NCCP, potential cumulative impacts to biological resources will be reduced to a level of less than significant.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements in the Impact subsections.

SPECIAL STATUS BIOLOGICAL RESOURCES

5.3-1a A pre-construction survey for the island green dudleya shall be conducted during the peak flowering period prior to Grading Permit Issuance (approximately April through June), by the Project biologist. The limits of each impacted dudleya location shall be clearly marked with lath and brightly colored flagging.

If any of the dudleya is located in the impact area, the loss of the dudleya shall be mitigated by seed and corm collection, and revegetation into a suitable mitigation site in the undeveloped portion of the Project site or at an off-site location. A qualified biologist shall be selected by the Applicant, subject to the approval of City staff, to prepare and implement the mitigation plan. The detailed mitigation plan shall include the following requirements:

- The existing locations of dudleya shall be monitored every two weeks by the Project biologist to determine when the seeds are ready for collection. A qualified seed collector shall collect all of the seeds from the plants to be impacted when the seeds are ripe.

- Following the seed collection, the corms shall be dug up, cleaned, and stored by a qualified nursery or institution with appropriate storage facilities. The top 12 inches of topsoil from the dudleya locations shall be scraped, stockpiled, and used at the selected mitigation site.

- This mitigation shall be conducted concurrent with the coastal sage scrub and coastal bluff scrub mitigation. The site shall be located in dedicated open space on the Project site or at an offsite mitigation site. The selected site should not attempt to enhance existing populations.

- The dudleya mitigation site shall be prepared for seeding as described in a conceptual restoration plan.

- The topsoil shall be respread in the selected location as approved by the Project biologist. Approximately 60 percent of the seeds and corms shall be spread/placed in the fall following soil preparation. Forty percent of the seed and corms shall be kept in storage for subsequent seeding, if necessary.

- The plan shall include detailed descriptions of maintenance appropriate for the site, monitoring requirements, and annual reports requirements. In addition, the Project biologist shall have the authority to suspend any operation on the Project site which is, in the Project biologist's opinion and confirmed by the City, not consistent with the restoration plan. Any disputes regarding the consistency of an action with the mitigation plan shall be resolved by the Applicant and the Project biologist.

- The performance criteria developed in the maintenance and monitoring plan shall include requirements for a minimum of 60 percent germination of the number of plants impacted. The performance criteria should also include percent cover, density, and seed production requirements. This criteria shall be developed by the Project biologist following habitat analysis of an existing high-quality dudleya habitat. This information shall be recorded by a qualified biologist.

- If the germination goal of 60 percent is not achieved following the first season, remediation measures shall be implemented prior to seeding with the remaining 40 percent of seed. Remedial measures shall include at a minimum: soils testing, control of invasive species, soil amendments, and physical

disturbance (to provide scarification of the seed) of the planted areas by raking or similar actions. Additional mitigation measures may be suggested as determined appropriate by the Project biologist.

- Potential seed sources from additional donor sites shall also be identified in case it becomes necessary to collect additional seed for use on the site following performance of remedial measures.

5.3-1b Pre-construction special status plant surveys shall be conducted to determine the presence or absence of aphanisma, south coast saltscale, Catalina crossosoma, Santa Catalina Island desert-thorn, and Lyon's pentachaeta. The focused surveys for these species shall be conducted during the appropriate blooming period (spring) prior to Demolition Permit Issuance. In the event any of these species are found to be present on the Project site, then mitigation measures shall be developed in consultation with the appropriate resource agencies if the status of the species and the size of the population warrant a finding of significance. Appropriate mitigation may include avoidance of the populations, relocation, or purchase of off-site populations for inclusion to adjacent open space areas.

5.3-1c Prior to Demolition Permit/Issuance, a focused survey for the Palos Verdes blue butterfly shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species, or purchasing of off-site habitat for this species.

5.3-1d Prior to Demolition Permit/Issuance, the Project Applicant shall comply with the FESA with regards to any impacts to the coastal California gnatcatcher. The LPHCP has been developed to ensure compliance with FESA and to be consistent with the City's NCCP, when adopted. The LPHCP would provide for the creation of 16.80 acres of new coastal sage scrub habitat area (UPVA Conservation Planning Area and Recreation Area). This, combined with the 14.63 acres of existing coastal sage scrub habitat, the 4.44 acres of coastal bluff scrub habitat, and the 3.87 acres of rocky shore/coastal bluff habitat that would be retained, would result in the protection and

creation of a total of 39.74 acres of coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff habitat. The 16.80 acres of restored and newly created habitat represents a replacement ratio of 3.4 to 1 (3.4 acres restored/created habitat for every 1 acre removed) for the 5.00 acres of coastal sage scrub and coastal bluff scrub impacted by the proposed Project. With the addition of 22.94 acres of preserved coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff to the mitigation program, the compensation ratio is over 7 to 1, far above typical mitigation standards of 2 to 1 and 3 to 1.

5.3-1e Thirty days prior to commencement of demolition activities, a qualified biologist shall conduct a survey to determine whether Cooper's hawk, burrowing owl, northern harrier, white-tailed kite, prairie falcon, and peregrine falcon, or other raptor species, are nesting in or adjacent to the impact area. In the event nesting is not occurring, construction work shall proceed. In the event an active nest is present, construction work shall be prohibited within 500 feet of the nest (or as otherwise determined by the Project biologist) until fledglings have left the nest. Results of the surveys shall be provided to USFWS, CDFG, and the City of Rancho Palos Verdes.

5.3-1f Prior to Demolition Permit Issuance, a focused survey for the Pacific pocket mouse shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species or purchasing off-site habitat for this species.

SENSITIVE NATURAL COMMUNITY

5.3-2a The LPHCP shall be implemented prior to the Certificate of Occupancy, to the satisfaction of the City. The Program shall contain habitat restoration and enhancement design details for the Conservation Planning Areas through revegetation with drought-tolerant species, transitional areas of planting between the Conservation Area and Resort Hotel/Recreation Planning Areas, and design for long-term sustainability. In addition, the Project's drainage and surface runoff shall be directed away from the bluff habitat areas in the RHA.

5.3-2b The seed mix for the coastal bluff scrub restoration area shall include California box-thorn and woolly sea-blite.

5.3-2c Prior to Grading Permit issuance, fencing shall be installed along the edge of all conservation, restoration, and enhancement areas to discourage human encroachment into those areas that would not be encroached upon except as a result of Project implementation.

5.3-2d Prior to Grading Permit issuance, signs shall be placed on all fencing installed along the edge of all conservation, restoration, and enhancement areas prohibiting entrance into these areas.

5.3-2e Prior to the issuance of Building Permits, areas adjacent to golf course activities shall be protected in compliance with City requirements.

5.3-2f Earth-moving equipment shall not maneuver in areas outside the identified limits of grading in order to avoid disturbing open space areas that are proposed to remain undeveloped. Prior to Grading Permit issuance, the natural open space limits shall be marked by the construction supervisor and the Project biologist. These limits shall be identified on the grading plan. The Applicant shall submit a letter to the City of Rancho Palos Verdes prior to Grading Permit issuance verifying that construction limits have been flagged in the field. No earth-moving equipment shall be allowed within the open space areas.

5.3-2g The Project development plan shall be modified to avoid any construction/development impact upon coastal bluff scrub and disturbed coastal bluff scrub areas.

5.3-2h The Project development plan shall be modified to avoid any construction/development impact to any areas subject to jurisdiction of the ACOE and CDFG. If these areas are not avoided, prior to Grading Permit issuance, the Project Applicant shall receive a permit and/or agreement from the ACOE and CDFG for any impacts to areas within their jurisdiction as part of the proposed Project.

Prior to the final submittal of an application for an ACOE permit or CDFG agreement, the Project Applicant shall develop a riparian restoration plan for the ACOE, CDFG, and City of Rancho Palos Verdes. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Project. Prior to implementation, a

detailed restoration program shall be developed and shall contain the following items:

- *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists and maintenance personnel that would supervise and implement the plan shall be specified.

- *Site selection*. The site for the mitigation shall be determined in coordination with the Project Applicant, City staff, and resource agencies. The site shall be located in a dedicated open space area and shall be contiguous with other natural open space.

- *Site preparation and planting implementation.* Site preparation shall include: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e. duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or shallow wattles), 7) seed mix application, and 8) container species.

- *Schedule*. A schedule shall be developed which includes planting to occur in late fall and early winter, between October and January 30.

- *Maintenance plan/guidelines.* The maintenance plan shall include: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting.

- *Monitoring Plan.* The monitoring plan shall include: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which shall be submitted to the resource agencies for five years. The site shall be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the Project Applicant may request from ACOE and CDFG to be released from monitoring requirements.

- *Long-Term Preservation.* Long-term preservation of the site shall be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.

- *Performance standards shall be identified and shall apply for the restoration of riparian habitat.* Revegetation shall be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas. Testing shall be conducted by a qualified biologist selected by the Applicant and subject to approval by City staff.

5.3-2i A revegetation program shall be implemented in accordance with the landscape palette developed for the LPHCP or as approved by the agencies. The revegetation program shall be submitted to the City of Rancho Palos Verdes for review and approval prior to Grading Permit issuance.

5.3-2j Prior to the initiation of grading activities, a 100-foot (or such other distance determined appropriate by a biological monitor) buffer area, shall be established around each gnatcatcher nest, during the nesting season (February-July) to avoid indirect noise impacts. No heavy equipment operation, or otherwise high noise generating activity, shall occur within the buffer area until nesting activity has ceased. Results of the surveys and nest monitoring will be provided to USFWS, CDFG, and the City of Rancho Palos Verdes. The biological monitor shall be selected by the Applicant and subject to approval by City staff.

5.3-2k Prior to the issuance of occupancy permits, a lighting plan shall be submitted to the City of Rancho Palos Verdes for review and approval to demonstrate that lighting from the proposed Project will be directed away from natural open space areas on and adjacent to the Project site, as well as proposed biological resources mitigation sites.

WILDLIFE MOVEMENT

5.3-3 No mitigation measures are required.

LOCAL POLICIES/ORDINANCES

5.3-4 No mitigation measures are required.

CUMULATIVE

5.3-5 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No unavoidable significant impacts related to biological resources have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.

5.4 CULTURAL RESOURCES

The purpose of this Section is to identify cultural resources which may exist in the Project area and to assess the significance of such resources based upon the Project description. Mitigation measures are also recommended to preserve and/or to protect the resources.

A cultural resources study on the Project area of the proposed Long Point Resort was performed by CRM TECH in October, 2000 and revised January 2001 (refer to Appendix 15.4, *Cultural Resources Report*). The purpose of the study is to provide necessary information and analysis to determine whether the proposed development would cause substantial adverse changes to any historical/archaeological resources that may exist in or around the Project area, as mandated by CEQA. In order to identify and evaluate such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research on the Project area, and carried out an extensive field survey.

EXISTING CONDITIONS

Ethnohistorical Context

The Palos Verdes Peninsula lies in the heart of the traditional homeland of the Gabrielino, a Takic-speaking people considered to be the most populous and most powerful ethnic nationality in aboriginal southern California (Bean and Smith 1978:538). The Gabrielino's territory was centered in the Los Angeles Basin, reaching from San Clemente Island to the present-day San Bernardino-Riverside area and south into southern Orange County, but their influence spread as far as the San Joaquin Valley, the Colorado River, and Baja California. Unfortunately, most Gabrielino cultural practices had declined long before systematic ethnographic studies were instituted. As a result, knowledge about them and their lifeways is meager.

According to the archaeological record, the Gabrielino were not the first inhabitants of the Los Angeles Basin, but arrived around 500 B.C., slowly replacing the indigenous Hokan speakers. As early as 1542, the Gabrielino were in contact with the Spanish during the historic expedition of Juan Rodríguez Cabrillo. But it was not until 1769 that the Spaniards took steps to colonize Gabrielino territory. Shortly afterwards, most of the Gabrielino people were incorporated into Mission San Gabriel and other missions in southern California. Due to introduced diseases, dietary deficiencies, and forceful reduction, Gabrielino population dwindled rapidly. By 1900, they had almost ceased to exist as a culturally identifiable group (Bean and Smith 1978:540). In recent decades, however, there has been a renaissance of Native American activism and cultural revitalization among a number of groups of Gabrielino descendants.

Historical Context

The Palos Verdes Peninsula was first noted by Europeans in 1542, during Juan Cabrillo's historic exploration of the California coast. However, neither Cabrillo nor any of the subsequent early explorers is known to have set foot in the inland area of the peninsula, and no European colonization activities occurred until after 1769, when the Spanish authorities in Mexico began to take steps toward actual control of Alta California. In 1784, grazing rights to the peninsula, then a part of the 75,000-acre Rancho San Pedro, were granted to Juan José Domínguez (White et al. 1999:7). After Mexico gained independence from Spain in 1821, the peninsula became a part of the 31,626-acre Rancho de los Palos Verdes, which was carved out of Rancho San Pedro in 1827 and officially granted to José and Juan Sepúlveda in 1846 (Robinson 1939:20, 22).

By 1882, as the result of a lawsuit that brought about the partition of Rancho de los Palos Verdes, the Palos Verdes Peninsula was awarded to Jotham Bixby of the nearby Rancho Los Cerritos in present-day Long Beach (Morgan 1982:7). Although cattle raising continued to be the primary economic activity, Bixby's ownership marked the beginning of agriculture on the peninsula, especially after Harry Phillips was hired as the ranch manager in 1894 (*ibid.*). In the early 1900s, Phillips encouraged the establishments of small farms in the coastal area by offering to lease land for ten dollars an acre, and many farmers, most notably Japanese immigrants, took advantage of the offer (*ibid.*). In 1906, Kumekichi Ishibashi became to the first Japanese immigrant to lease land and begin farming on the peninsula. By the early 1940s, there were 185 Japanese-Americans living in the area and farming a total of 1,900 acres (Young n.d.:6).

In 1913, the Bixby family sold their Palos Verdes Peninsula holdings, and the property eventually came under the control of Frank A. Vanderlip, president of the National City Bank in New York (Morgan 1982:8). Recognizing the potential of the land for residential development, Vanderlip set the course for the peninsula's rapid growth since then in what became known as the Palos Verdes Project. This new era in local history commenced in the early 1920s, and continued into the present time, when the Palos Verdes Peninsula, divided among the Cities of Rancho Palos Verdes, Palos Verdes Estates, Rolling Hills, and Rolling Hills Estates, ranks among the premium residential areas in southern California.

Due to its strategic location, the Rancho Palos Verdes area played an important part in southern California's coastal defense system during much of the 20th century. In 1930, what is now the City of Rancho Palos Verdes became home to two observation posts for the coastal artillery network known as the Harbor Defenses of Los Angeles, established to protect the Port of Los Angeles that was developed between 1899 and 1910. During WWII, with new artillery batteries installed, the area gained increased significance in the system. In the post-WWII period, after the defense system turned its focus from warships to aircrafts, Rancho Palos Verdes

hosted one of the primary anti-aircraft missile sites in the Los Angeles Defense Area, and served in that capacity until 1974. Many of these defense installations were located within the current Project area, and in most cases left various remains to be found today. These installations, therefore, will be discussed in further detail in the sections to follow.

Records Search

On September 19, 2000, CRM TECH archaeologist Mariam Dahdul conducted the historical/archaeological resources records search at the South Central Coastal Information Center (SCCIC), located at the California State University, Fullerton. The SCCIC is the State of California's official cultural resource records repository for the County of Los Angeles, and a part of the California Historical Resource Information System established and maintained under the auspices of the California Office of Historic Preservation.

During the records search, Dahdul examined maps and records on file at the information center for previously identified cultural resources inside or within a one-mile radius of the Project area, and existing cultural resources reports pertaining to the vicinity. Previously identified cultural resources include properties designated as California Historical Landmarks or Points of Historical Interest, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resource Information System.

Historical Research

Bai “Tom” Tang, CRM TECH historian, conducted the historical background research for this study. In addition to reviewing reports of previous studies on the Project area and other secondary sources in local, regional, and military history, Tang also pursued further research using various primary sources, and initiated oral historical interviews with long-time residents of the Rancho Palos Verdes area, including George Ishibashi and other members of the Ishibashi family.

The primary sources consulted during the research include historic maps and aerial photographs of the Project vicinity, archival records of the County of Los Angeles, and materials on file at the Fort MacArthur Museum in San Pedro and at the local history collection of the Palos Verdes Library, Malaga Cove branch, in Palos Verdes Estates. Among the historic maps are the U.S. Geological Survey's (USGS) topographic maps dated 1896, 1928, 1944, 1951, 1963, and 1972, all of which are collected at the Science Library of the University of California, Riverside. Aerial photographs dated 1927, 1928, and 1945 are found at the Fairchild Aerial Photography Collection housed in Whittier College, Whittier.

Field Survey

On September 10 through 12, 2000, CRM TECH archaeologists Mariam Dahdul, Daniel Ballester, and Adrián Sánchez Moreno carried out the intensive-level field survey of the Project area. During the survey, the team walked parallel 15-meter (ca. 50-foot) transects on the level areas and gentler slopes, and along 15-meter contours on the steeper slopes, and closely examined the ground surface for any evidence of human activity dating to older than 50 years. Areas that are too steep even for contour transects, such as the beach cliff and a south-facing road cut on Rancho Palos Verdes Drive, were visually inspected from below each incline. Historical/archaeological features encountered during the survey were flagged and noted on Project maps. At the conclusion of the initial field survey, prospective sites were revisited and inspected more closely to determine site status and boundaries, if any.

On September 12, 2000, Bruce Love, CRM TECH principal investigator, visited the Project area and was given a tour of all findings to date. In consultation with Project archaeologists, Love made final decisions on which areas constituted sites and what the final boundaries should be. Later, Bai "Tom" Tang revisited the Project area on October 6, 2000, for a spot check of the historic-era features observed during the survey. In particular, Tang completed field recordation procedures on a historic-era farmhouse complex that was identified as a result of the archaeological field survey, including detailed notations and preliminary photo-documentation of the structural and architectural characteristics and current conditions of the buildings, structures, and other associated features. The results of these field procedures are discussed in the sections below.

RESULTS AND FINDINGS

The following sections discuss the results and findings of the various research procedures outlined above.

Historical Overview of the Project Area

Results of the historic background research suggest that over the past 100 years the history of the Project area largely echoed the patterns observed in the overall development of the Palos Verdes Peninsula, as discussed above (see "Historic Context"). In 1894, the year when Harry Phillips took over the management of the Bixby landholdings on the peninsula, no man-made features were found in the Project area, or anywhere within a mile or two. In the early 20th century, the coastal area of what is now Rancho Palos Verdes was gradually settled by tenant farmers, including a large proportion of Japanese immigrants and their American-born children. But most of these farmsteads were initially clustered around Portuguese Bend, approximately one mile to the east of the Project area, where Kumekichi Ishibashi established his farm in 1906.

During the first 30 years of the 20th century, however, the increased agricultural development in the general vicinity gradually brought changes into the Project area. Except for a coast-hugging road known as Paseo del Mar or Palos Verdes Coast Highway, the first notable evidence of human activities within the Project area was a building in the central portion of the Upper Point Vicente Area, which was first recorded in 1925. An aerial photograph taken in 1928 shows this "building" to be a circular-shaped structure of unknown nature (aerial photo 1928). No evidence of this structure is found in any of the later maps or aerial photographs. Because of its close proximity to military facilities installed during the WWII and Cold War years (see further discussion below), it is likely that the structure was obliterated during these later constructions.

In the 1920s, Frank Vanderlip planned to develop the Upper Point Vicente Area into “an Italian hillside village, to be occupied by craftsmen who would live, work, and sell their ware on different levels of the same building” (Morgan 1982:10). In the aftermath of the 1929 stock market crash, the plan was abandoned, leaving only a model of the village now on display at the Palos Verdes Historical Society (*ibid.*).

Also in the 1920s, the first farmstead in the Project area was established near the northeastern corner of the Resort Hotel Area when a house was moved to this location at some time between 1925 and 1928. In addition, the 1928 aerial photograph shows a second apparent farmstead along the northern boundary of the Resort Hotel Area, where no buildings were observed in 1925. After the completion of today's Palos Verdes Drive South in the 1930s, what remained of the latter farmstead was left on the north side of the road, outside the Project area. But the other one is still present in the Project area today at 6621 Beachview Drive.

In 1930, the U.S. Army constructed six coastal artillery observation posts, known as the Long Point Base End Stations, in the southeastern portion of the Upper Vicente Area, thus beginning the 44-year military presence in the Project area (Berhow 1992:7). Since then, the Project area has hosted, among other military facilities, two WWII-era artillery batteries known as Batteries 5 and 240, and a Cold War-era surface-to-air missile launch area known as Nike Air Defense Site LA-55-L. Except for the brief emplacement of the temporary Battery 5 in the Resort Hotel Area in 1942, all of the defense installations to appear in the Project area during that period were located in the Upper Vicente Area. Defense-related activities, therefore, formed the dominant theme in the history of the Upper Vicente Area over much of the past 60 years, until the inactivation of the Nike missile site in 1974. In 1979, the property was transferred to the City of Rancho Palos Verdes.

In contrast, the Resort Hotel Area continued to be used primarily for agriculture, despite its brief military service in 1942, until the mid-1950s, when most of that area was incorporated into the Marineland Aquatic Park. The park opened in 1954, and operated for nearly 33 years until mounting losses forced its closure in 1987. Although most of the park was demolished in 1988, some of its buildings and other

features of built environment survived in the Project area to the present time, which will also be discussed in the section below.

Previous Cultural Resources Studies

According to records on file at the South Central Coastal Information Center, the Project area has been the subject of prior cultural resources studies. Two recent studies for the property were carried out on the basis of literature and records review in conjunction with spot-check in certain portions of the Project area, and did not involve a systematic, intensive-level field survey of the entire property (Bissell 1998a:13-16; White et al. 1999:9, 11, 35).

Within the boundaries of the present Project area, these and other prior studies identified and recorded one prehistoric archaeological site, one prehistoric isolate, and four historic-era sites, including a documented historic district that encompasses the other three sites. These previously identified cultural resources are listed below.

- Site CA-LAN-103. Site CA-LAN-103 was first recorded in 1939 by F. H. Racer, who described the rock shelter or small cave as having a "smoke blackened" roof and shell midden consisting of broken and whole abalone shells. Racer remarked that "this cave was cleaned out several years ago" (Racer 1939). By coincidence, CRM TECH archaeologist Harry M. Quinn had in his possession photographs and notes by Racer dating presumably from or near the time when he recorded the cave. According to notes, artifacts removed from the cave at that time included about 60 items, including shell ornaments and tools and chipped stone artifacts. Prior studies of the Project area in 1998 and 1999, however, failed to locate the site, and it was assumed the rock shelter had been destroyed (Bissell 1998b; White et al. 1999:35).

- Site 19-180589. Site 19-180589, recorded by Bissell (1998c) during a 1998 study of the Project area, consists of the remains of the Long Point Base End Stations and an associated cable terminal box, all constructed in 1930. The Base End Stations were designed to furnish fall-of-shot data for fire adjustment of large-caliber guns, as well as to assist in early warning and target acquisition. The six Base End Stations at this location were associated with the six heavy artillery batteries at nearby Fort MacArthur.

- Site 19-180590. Site 19-180590 represents the remains of the WWII-era Battery 240, which was constructed in 1942 for the placement of two six-inch turret-mounted guns. The remains, as recorded by Bissell (1998d), consist of two concrete gun blocks and a subsurface

concrete and steel structure housing the powder rooms, shell rooms, and other supporting facilities.

- Site 19-180591. Site 19-180591 is comprised of the largely intact remains of Nike Air Defense Site LA-55-L, the launch area for one of the Nike Ajax/Hercules anti-aircraft missile sites that once ringed the Los Angeles metropolitan area in the 1950s-1970s (Bissell 1998e). Bissell (*ibid.*) reports that the majority of the facilities, including two missile launcher sections and six buildings, remained in place in 1998.

- Site 19-180593. Site 19-180593 is the documented Long Point Defense District, recorded as such by Bissell (1998f) during the 1998 study of the Project area. The grouping of resources resulting in the documented district encompasses the three defense-related sites listed above, namely 19-180589 (Base End Stations), 19-180590 (Battery 240), and 19-180591 (Nike Air Defense Site LA-55-L).[1]

- Isolate 100099. Isolate 100099 is comprised of two Monterrey Chert stone flakes found near Battery 240 on a hilltop (Perry 1989). These artifacts were not observed at the recorded location during the 1998 and 1999 studies of the Project area (Bissell 1998a:26; White et al. 1999:35).

During his 1998 study, Bissell also recorded a bronze survey monument that was apparently installed by the Los Angeles County Surveyor's Office in 1936 (Bissell 1998g). Designated subsequently by the SCCIC as Site 19-180592, this survey monument is located on a 3.9-acre parcel controlled by the U.S. Coast Guard, which is not considered a part of the Project area at the time of this study.

Outside the Project area but within a one-mile radius, SCCIC records indicate an additional 30 cultural resources studies. As a result of these studies, 20 archaeological sites and 2 isolates were recorded within the one-mile radius. Of the 20 archaeological sites, 18 consisted of shell middens, flakes, groundstone, and 3 shell beads, and 2 sites contained lithic scatters. The 2 isolates have been recorded as large fragments of abalone shell and a petroglyph (sandstone slab with

[1] A "district" is defined, for the purpose of historical resources recordation, by the National Parks Service and the California Office of Historic Preservation as a geographic area that "possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development" (NPS 1991:5; OHP 1995:3). The OHP's site recording guidelines provides that "any physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's filing system" (OHP 1995:2). However, a property recorded under this provision does not automatically become a significant or important historical resource unless officially registered, designated, or otherwise determined as such by the proper federal, state, or local government agencies.

etchings). The presence of 6 previously recorded historical/archaeological sites within the Project area and 22 additional resources within a one-mile radius suggests a very high sensitivity for cultural resources in the Project area, both from the prehistoric period and from the historic period.

Potential Cultural Resources in the Project Area

Site CA-LAN-103 (Rock Shelter and Shell Midden)

CA-LAN-103 was found during the field survey hidden behind a dense stand of prickly pear cactus on the west-facing slope below the Coast Guard property. Around the edges of the cactus stand, abalone shell fragments were visible emerging from beneath the vegetation and washing down slope. Cutting a trail through the cactus and following the shell midden up-slope, CRM TECH Project archaeologists rediscovered the entrance to the rock shelter.

Evidence of past removals within the cave is clear, in the form of looters' pits and rock removals. Hundreds of pieces of abalone shell cover the cave entrance. The rock shelter itself measures approximately 4.5 meters (15 feet) front to back and 5 meters (16.5 feet) wide, while the talus slope containing untold numbers of shell fragments and discarded artifacts reaches some 35 meters (115 feet) to the west and south of the cave entrance.

The actual location of CA-LAN-103 is some 1,700 feet west of where it was plotted on the SCCIC map that was copied during the records search. Since the original 1939 site record did not include a map, one can only speculate how the erroneous site location came to be recorded at the SCCIC. The correct location is now on file as a result of the current study and the submission of a site record update.

Site 19-180589 (Base End Stations)

As previously mentioned, six Base End Stations were constructed at this location and transferred to the U.S. Army in 1930, along with a submarine cable terminal box, a cable junction box, and a concrete datum point (Berhow 1992:7, 14). The Base End Stations were small observation posts of reinforced concrete construction that were partially buried, each associated with one of the six heavy artillery batteries at Fort MacArthur, known as Batteries Osgood, Farley, Leary, Merriam, John Barlow, and Saxton. Among these, Battery Osgood-Farley, which was equipped with two 14-inch “disappearing” guns, and Batteries John Barlow and Saxton, which were equipped with four 12-inch mortars each, are now listed in the National Register of Historic Places (Fort MacArthur Museum Association n.d.).

By 1943-1944, the six heavy artillery batteries listed above were declared obsolete and inactivated, and their guns were removed after WWII (Fort MacArthur Museum Association n.d.). The Base End Stations at Site 19-180589 were presumably

inactivated around the same time as the batteries. Berhow (1992:14-15) reports that all six of the Base End Stations were extant in 1992, as well as the cable junction box, while the cable terminal box and datum point had probably been destroyed by then. In 1998, Bissell (1998a:17-20) located five of the six Base End Stations, along with the cable junction box. Field survey during the present study confirmed Bissell's observations.

The five Base End Stations that were inspected during this study, as noted by Bissell in 1998, remain in excellent condition. In contrast, the three other groups of Base End Stations for the Fort MacArthur batteries, located at the fort, at White Point, and at Sea Bench, have all been greatly disturbed and partially destroyed (Berhow 1992:14; Fort MacArthur Museum Association n.d.). The sole surviving example at Sea Bench has since been listed in the National Register of Historic Places (White et al. 1999:17). The Base End Stations at Site 19-180589, the best preserved in the Los Angeles area (Berhow 1992:16), have thus become an important relic to supplement the historic gun batteries at Fort MacArthur.

Site 19-180590 (Battery 240)

Also known as Battery Harry C. Barnes, Battery 240 was constructed shortly after the Japanese attack on Pearl Harbor to facilitate two rapid-fire six-inch naval guns designed to repel sea-born invasions and submarine raids, which were considered the main threats to the west coast during the early days of U.S. involvement in WWII.

The battery was completed and became operational in 1943 (Berhow 1992:12). Within the next two years, two other similar batteries were built in the Greater Los Angeles area, including Battery 241 at Fort MacArthur and Battery 242 at Bolsa Chica near Huntington Beach (*ibid.*). The remnants of Battery 241 can be found today in the Angels Gate Park in San Pedro, with features similar to those at Site 19-180590. Each of these three batteries was charged with the defense of a segment of the coastline, with Battery 240's responsibility extending as far north as Playa del Rey (Berhow 1992:app.). After the end of WWII, as the coastal artillery system became obsolete, Battery 240 was inactivated and dismantled, along with all other batteries in the Harbor Defenses of Los Angeles (White et al. 1999:22).

During the time when Battery 240 was in service, the gun emplacement was accompanied by a number of support buildings, structures, and subsurface features, including two power houses, two fuel tanks, a mess hall, barracks, a latrine, and a septic tank, forming the largest military base on the Palos Verdes Peninsula (Bissell 1998a:21; White et al. 1999:22; Young n.d.:13). Most of these were located outside the Project area in the general vicinity of the present-day City Hall, but at least two of the buildings were apparently inside the Project area. In the mid-1950s, all but one of the buildings and structures were demolished in preparation for the construction of new buildings associated with the Nike air-

defense missile site (White et al. 1999:22). The sole survivor in that group was the mess hall, which was rehabilitated for the Nike site in 1954 (*ibid.*), but is no longer in existence today (see discussion of Site 19-180591, below).

At present, the gun battery itself remains present at the site, which consists of two concrete gun blocks and a subsurface concrete and steel structure housing the power rooms, shell rooms, and other supporting facilities. Although the gun blocks now stand vacant and one of them is overgrown by vegetation, the battery is overall in a very good state of preservation and is reportedly still used by the U.S. Coast Guard for some purposes. Much of the site is located on the Coast Guard parcel and thus outside the Project area, including both gun blocks, but roughly half of the battery's subsurface structure, including the main entrance, is situated within the Project boundaries.

Site 19-180591 (Nike Air Defense Site LA-55-L)

Nike Air Defense Site LA-55-L was a part of Site LA-55, one of the 16 Nike air defense missile batteries that guarded the 4,000-square-mile Los Angeles Defense Area, one of the largest in the nation, during the height of the Cold War (Berhow 1992:18; Morgan and Berhow 1996:88). The Nike air defense program, designed to defend U.S. metropolitan areas and major military installations against nuclear-armed air assault by the Soviet Union, was officially launched in 1954, when the first Nike Ajax surface-to-air missiles started to phase out anti-aircraft artillery (McMaster et al. 1984:2-1). Between 1958 and 1961, the Nike Ajax missiles were gradually replaced by the more powerful Nike Hercules missiles that were armed with nuclear warheads. As a result, the 16 missile sites in the Los Angeles Defense Area were reduced to 9, with the other 7 inactivated by 1964 (Berhow and Stokes n.d.:3). In the late 1960s, the U.S. Army began reducing the number of Hercules batteries maintained around the nation, and by 1974 all remaining sites in the Nike program had been inactivated (*ibid.*).

Site LA-55, known as Palos Verdes/Point Vicente, was activated in 1956, although it was shown to the public as early as 1955, the first Nike site to receive that distinction (Berhow and Stokes n.d.:2, 7). It was converted from Ajax to Hercules in 1958, without significant changes to the existing facilities (McMaster et al. 1984:2-2; Morgan and Berhow 1996:88). Like all other Nike batteries, Site LA-55 consisted of two components: an Integrated Fire Control area, the nerve center of the missile site, and a Launch Control area, the physical arm of the site. The Integrated Fire Control area for LA-55 was located some two miles to the northeast at Crenshaw Boulevard and Seacrest Drive, and has been demolished for the construction of Del Cerro Park (Berhow 1992:20). Site 19-180591 is the remains of the Launch Control area, designated accordingly as Site LA-55-L.

Although Site LA-55-L ceased operation more than 16 years ago (Morgan and Berhow 1996:88), the majority of its facilities remains intact today, including two

missile launch sections and six buildings. Four of the buildings, the missile arming building, the missile assembly building, the generator building, and a guard post, are located within the Project area (Fig. 17). The other two buildings, the troop barracks and the headquarters/ recreation building, are currently occupied by the Rancho Palos Verdes City Hall, just outside the Project area. Also located in the Project area are other features associated with the Nike operations, such as an earthen revetment surrounding the missile arming building. The only major component of Site LA-55-L that has been demolished, according to Bissell (1998e), is the mess hall that was inherited from the WWII-era Battery 240, which was located next to the headquarters/recreation building outside the Project area. More detailed listing and descriptions of the remaining facilities of Site LA-55-L are found in the existing site record for 19-180590.

Of the 16 Nike air defense missile sites in the former Los Angeles Defense Area, most have been destroyed or partially destroyed since inactivation. Besides LA-55-L, according to Berhow and Stokes (n.d.:5-8), at present only five of the other Nike sites appear to retain their Launch Control area facilities, including those at Stanton/Garden Grove (LA-32), Fort MacArthur/White Point (LA-43), Malibu/Santa Monica Mountains (LA-78), Chatsworth/Oak Mountain (LA-88), and Van Nuys/Sepulveda (LA-96).

Site 19-180593 (Documented Long Point Defense District)

The research findings presented above demonstrate that the Harbor Defenses of Los Angeles formed an important chapter in the history of the Project area, particularly the Upper Point Vicente Area. In addition to the Base End Stations, Battery 240, and Nike Site LA-55-L, another WWII-era artillery battery, known as Battery 5, once also existed in the Project area. During the previous surveys for the Long Point Resort Project, Bissell (1998a:26-27) and White et al. (1999:36, 39) noted the presence of a Known-Distance Rifle Range that was associated with Nike Site LA-55-L. Both reports state that the rifle range is no longer in existence, and furthermore its former location lies outside the Project boundaries as currently configured.

Commissioned in 1942 as a temporary battery while Battery 240 was under construction, Battery 5 consisted of the concrete mounts for two 155-millimeter "Long Tom" artillery pieces, one of the nine similar posts established in the Greater Los Angeles area in the early days of WWII (Berhow 1992:11; Young n.d.:13). It was located near the tip of Long Point, apparently with at least one support structure (aerial photo 1945; Monet et al. 1992:16). The battery was dismantled after Battery 240 became operational and, since its location was later occupied by the Marineland Aquatic Park, it is unlikely that any remains of the battery still exist today.

The three remaining military sites in the Project area, the Base End Stations, Battery 240, and Nike Site LA-55-L, are not only geographically contiguous, occupying the central portion of the Upper Point Vicente Area, but also thematically connected to one another. Together they represent the evolution of the Los Angeles harbor defense system between 1930 and 1974, from one designed against heavily armored warships to one designed against sea-borne invasion and submarine raids, and finally to a more recent system designed against nuclear-armed air attacks. In this sense, the three sites constitute a coherent historic district despite their different dates of construction and operation.

6621 Beachview Drive (Ishibashi Farmhouse Complex)

During the present study, a previously unrecorded historic-era site, consisting of a farmhouse complex, was identified in the northeastern corner of the Resort Hotel Area. The main feature at the site is a wood-frame residential structure with a rectangular plan, a low-pitched side gable roof, and wood-framed double-hung windows. Its exterior walls are clad with vertical flush boards, and the roof is covered with composition sheets. The façade of the house features an elevated wooden platform under a flat roof, forming a large front porch. Overall, the house is simple in design and unpretentious in appearance.

Standing next to this main residence is a small, shed-roofed secondary residence, also of wood-frame construction. Both of them appear to be occupied. The rest of the complex is comprised mainly of a number of wooden sheds, some covered with corrugated metal panels, that are used for storage or animal pens. Also located in the complex are several old trucks and a mature growth of domestic trees, including large pepper trees. This group of buildings and structures is surrounded by agricultural fields, although most of them are not under cultivation at the time of the field survey.

Sources consulted during this study indicate that the main residence in the complex was moved to this location in the 1920s, when its former site was taken over by a stable for Frank Vanderlip's prized race horses (Ishibashi 2000). This took place evidently between 1925 and 1928, for the 1928 USGS map of the area, based on field surveys conducted in 1925, shows no building in the vicinity, while an aerial photograph clearly shows the presence of the farmhouse surrounded by trees and other structures.

According to George Ishibashi (2000), a son of Kumekichi Ishibashi, the house was occupied before 1936 by a Japanese farmer named Hashimoto. In that year, when Hashimoto returned to Japan, George Ishibashi moved here from the Ishibashi family's farmstead near Portuguese Bend, and began farming at this location (*ibid.*). In 1942, like all other Japanese-Americans, the Ishibashis were removed from the coastal area to internment camps. After the end of WWII, George Ishibashi returned to the house, and was soon joined by his brothers, including Masaichi

"Mas" Ishibashi (Ishibashi 2000; anonymous n.d.:26). Mas Ishibashi resided at this location until the mid-1960s, while George Ishibashi continued to occupy the house until the mid-1990s (Ishibashi 2000).

Over the years, the farmhouse complex has been used several times as a movie set, and the existing front porch was constructed during one such episode (Ishibashi 2000). Aside from this, no major alterations have been reported on the residence (*ibid.*). This farmhouse complex was recorded on standard site record forms during this study, which will be submitted to the SCCIC for inclusion in the California Historical Resource Information System.

Other Possible Locations of Historical Interest

Isolate 100099 (Monterrey Chert Flakes)

The two stone flakes reported at this location in 1989 (Perry 1989) were not located during either of the two previous surveys of the Project area (Bissell 1998a:26; White et al. 1999:35), or during the present study. Nor were any other similar artifacts noted in the vicinity during this study. This isolate, therefore, is evidently no longer in existence.

Concrete Slabs and Asphalt Roads

During the present study, two concrete slabs were observed just to the north of the Rancho Palos Verdes City Hall. These slabs have remnants of steel poles that were cut at some previous time, and they do not appear to be part of a domestic foundation, as they lack bolts around their edges. There are two asphalt roads approaching the slabs from Palos Verdes Drive South, and one of these leads right up to the slabs.

Results of the historical research reveal no buildings, structures, or man-made features at this location during the historic period. A building and a road that the current USGS map shows to be present at this location, in fact, did not come into being until some time between 1972 and 1978. The features noted above thus clearly have no historic value, and consequently were not recorded as potential cultural resources during this study.

Existing Truck Farm

Of the two existing truck farms reported by Bissell (1998a:27) and White et al. (1999:33, 36), only one is located within the current Project area. This truck farm, situated on the eastern edge of the Upper Point Vicente Area, is currently operated by James Hatano, and planted mostly in cactus. It contains a modern trailer and several wooden sheds, and no features that demonstrate any historic characteristics.

In his 1998 report, Bissell (1998a:25) states that aerial photographs taken in 1927 and 1928 indicate two houses in the Project area, including one near the location of the Hatano farm. Examination of the same photographs during the present study, however, revealed no evidence of any buildings at the locations reported by Bissell (aerial photo 1927; 1928). Since no historic features are evident at the Hatano farm, no further consideration is required for that location.

Marineland Aquatic Park

The Marineland Aquatic Park, as previously stated, came into being in 1954 and ceased operations in 1987, and is thus fairly modern in origin. Most of its buildings and other facilities were demolished in 1988, and the remaining ones in the Project area today demonstrate no particular historic characteristics or other special qualities. Therefore, the former site of the park was not recorded during this study, and requires no further consideration as a potential historical resource.

Paleontology

Paleontological resources are generally regarded as plants and animals that have been preserved, or fossilized, in certain sedimentary rock formations.

Sedimentary rocks are usually laid down from the erosion of non-sedimentary materials (i.e., granite or basalt) from wind, water and gravity. Through geologic time, these sedimentary materials harden from heat and pressure as other materials are deposited over them. Combined with the sedimentary material is organic materials that has died or has been caught through a cataclysmic geologic event. Over time, the organic material undergoes chemical changes and decomposition as a result of heat and pressure which leaves an imprint of whatever has been caught. This imprint is commonly called a fossil.

The Palos Verdes Peninsula has undergone many geologic changes over time. Local seismic activity have uplifted and squeezed ancient geologic materials. This action, coupled with the weight of previously deposited sedimentary layers produced large amounts of heat and pressure. Sedimentary materials deposited in the ancient coastal area of the Pacific Ocean or inland seas were forced up into higher elevations. Over geologic time, the combined forces formed fossils which now can be found many miles from the existing coastline or at higher elevations than the current sea level.

Knowing the spatial distribution of rock formations is important from a planning standpoint because the distribution of paleontological resources (fossils) in an area is directly related to the distribution of the geologic layers within which the fossils are buried. Formations can be thought of as possessing a specific paleontological resource sensitivity wherever they crop out based on discoveries made elsewhere in that formation. Experience has shown that most areas underlain by sedimentary

rock formations will produce fossil remains when they are cut into by earth-moving activities regardless of whether or not fossils have previously been recovered in the area.

The Rancho Palos Verdes General Plan states that the two major classes of fossil remains that occur in the peninsula are Foraminifer and Mollusks. Both contain species of fauna that are marine in origin. No fossil resources have been identified within the Project area.

IMPACTS

Significance Criteria

The purpose of this analysis is to identify any potential cultural resources within or adjacent to the Project area, and to assist the City of Rancho Palos Verdes in determining whether such resources meet the official definitions of "historical resources," as provided in the California Public Resource Code, in particular CEQA.

According to Public Resources Code §5020.1(j), "historical resource" includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, the California Environmental Quality Act (CEQA) Guidelines (Section 15064.5(a) (1-3)) state that the term "historical resources" applies to such resources listed in or determined to be eligible for listing in California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency.

Regarding the proper criteria of historical significance, the CEQA Guidelines (Section 15064.5 (a) (1-3)) mandate that "a resource shall be considered by the lead agency to be "historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources". A resource may be listed in the California Register if it meets any of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code Section 5024.2 (c)).

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Environmental Checklist Form used during preparation of the Initial Study for the Project, as contained in Appendix 15.1, *Initial Study*, of this EIR. The Environmental Checklist Form includes questions relating to Cultural Resources. The issues presented in the Environmental Checklist have been utilized to identify impacts from which thresholds of significance have been developed.

Based on Appendix G, a project may create a significant environmental impact if one or more of the following occurs:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5 (refer to Impact Statement 5.4-1);
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 (refer to Impact Statement 5.4-1);
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (refer to Impact Statement 5.4-2); and/or
- Disturb any human remains, including those interred outside of formal cemeteries (refer to Impact Statement 5.4-3).

Cultural resources within the Project area could be affected by direct and indirect adverse impacts. Direct adverse impacts would accompany ground-disturbing activities. The impact would arise primarily from grading and other construction activities. Indirect adverse impacts would accompany the increase in population associated with development. These indirect impacts, such as from “souvenir collecting”, uncontrolled excavation, vandalism, or off-road driving, also can be substantial over time. It has been shown that the accessibility of site to population centers and roads are a major factor for the vandalism suffered at a site.

ARCHAEOLOGICAL/HISTORICAL RESOURCES

5.4-1 *Implementation of the proposed Project may cause a significant impact to archaeological and/or historical resource on-site. Implementation of the specified mitigation measures would reduce impacts to less than significant levels.*

Site CA-LAN-103 (Rock Shelter and Shell Midden)

Site CA-LAN-103 would qualify as a historical resource under California Register Criterion 4 ("information potential") if it contained intact archaeological deposits. Such deposits could yield important information on the prehistory of California's coastal populations, dating to past centuries or possibly millennia. However, the site has been seriously disturbed by artifact hunters, which compromises the site's historical integrity. Thus, it is impossible to judge the full extent of the disturbances or the quantity and quality of the in-place artifact-bearing deposits without an archaeological testing program of scientific excavations to determine the current depth, breadth, and content of the site.

In order to determine whether the Project would have an effect on Site CA-LAN-103 as a historical resource, an evaluation is required to determine whether or not the site meets the statute definition of a historical resource. Such a determination would depend upon results of the archaeological testing and evaluation program.

Site 19-180589 (Base End Stations)

Site 19-180589, consisting of the six 1930 Base End Stations and an associated cable junction box, is a contributor to the historic significance of the documented Long Point Defense District (Site 19-180593), which appears to be eligible for listing in the California Register (see discussion below). In fact, these pre-WWII structures may be considered the most significant component of the documented district. Not only are they the oldest of the three elements of the documented historic district, but they represent rarer specimens than the other two components, namely Battery 240 (Site 19-180590) and Nike Air Defense Site LA-55-L (Site 19-180591). While other, similar six-inch gun batteries and Nike missile launch sites can still be found in the Los Angeles area, the group of Base End Stations in the Project area is now the only intact example of its kind.

Despite the absence of the fire control instruments, these concrete structures retain historic integrity that reflects their period of significance. In addition to being a key component of the documented Long Point Defense District, Site 19-180589 is also closely related to Fort MacArthur, the historic cornerstone of the Los Angeles harbor defense system, where some of the large-caliber gun batteries served by the Base End Stations are now listed in the National Register of Historic Places and the California Register of Historical Resources. Based on these considerations, the site qualifies as a historical resource, both individually and as a contributing element of a documented historic district.

As the Project is currently configured, the Base End Stations lie within a proposed habitat conservation area. As such, the Project would have no effect on these resources.

Site 19-180590 (Battery 240)

Constructed shortly after the United States entered WWII, Battery 240 was once an integral part of the Los Angeles harbor defense system. During its service of active duty, the two six-inch guns emplaced at this location were charged with defending the coastline from Playa del Rey to the San Pedro Bay against anticipated invasion or submarine raids. The battery is closely associated with the American war efforts and coastal defense, a prominent theme in the historical context of the Rancho Palos Verdes area. Therefore, it is eligible for listing in the California Register.

Although the gun turrets and the auxiliary buildings at the battery have been removed, the subsurface structure of the battery and the concrete gun blocks are

still intact. The site thus retains historic integrity to relate to its period of significance. Furthermore, it is one of the three contributors to the historic significance of the documented Long Point Defense District (Site 19-180593), which is also eligible for listing in the California Register (see discussion below). As such, Site 19-180590 qualifies as a historical resource both individually and as a contributing element of a documented historic district.

Three kinds of land use are proposed for the portion of Battery 240 that lies within the Project area: public play golf course (recreation), public parking and parks (recreation), and conservation. The first two have the potential to have a significant impact on this historical resource. However, due to the location of this resource within areas designated for conservation and recreation, the potential exists for design modifications that would avoid such effect. This would allow incorporation of historic features into Project plans in such a way as to preserve those characteristics of Battery 240 that qualify it for inclusion in the California Register. In sum, the Project has the potential to have a significant impact on this historical resource, but with proper design and avoidance, such effect can be reduced to levels less than significant. The recommended mitigation identifies two separate options that may reduce impacts to a less than significant level.

Site 19-180591 (Nike Air Defense Site LA-55-L)

Site 19-180591, representing the remains of the former Nike anti-aircraft missile launching area designated Site LA-55-L, is a relic of the Cold War between the United States and the Soviet Union in the years following the end of WWII. The presence of this and other similar air defense sites around the country undoubtedly played a significant part in preventing the Cold War from escalating into a real one. Because of its association with this important event in post-WWII American history, Site 19-180591 is eligible for listing in the California Register.

Of the 16 such facilities that once circled the Los Angeles metropolitan area, Site LA-55-L is among the few that have survived since the termination of the Nike air defense program in 1974. Despite the removal of the armament and the loss of one of the auxiliary buildings, the site retains historic integrity overall, with the missile launcher sections and the remaining buildings largely intact. In addition, the Nike missile launching area is the geographically dominant element of the documented Long Point Defense District (Site 19-180593), which as a whole is eligible for listing in the California Register (see discussion below). Site 19-180591, therefore, qualifies as a historical resource both individually and as a contributing element of a documented historic district.

Since Site 19-180591 is located in an area proposed for a golf course, Project effects to this historical resource are potentially significant. The recommended mitigation identifies two separate options that may reduce impacts to a less than significant level.

Site 19-180593 (Documented Long Point Defense District)

As stated above, the three elements comprising this documented historic district, the 1930 Base End Stations (Site 19-180589), the WWII-era Battery 240 (Site 19-180590), and Nike Air Defense Site LA-55-L (Site 19-180591), have been each determined to be individually eligible for listing in the California Register. Together, these three components form a thematic district representing the evolution of the Los Angeles harbor defense system from 1930 to 1974. The Harbor Defenses of Los Angeles, to which the district is integrally associated, was an important chapter in the history of not only the Palos Verdes Peninsula but also the Greater Los Angeles area. Based on these considerations, the present study concludes that sites 19-180589, 19-180590 and 19-180591 meet the criteria for a "district" as defined by the National Parks Service and California Office of Historic Preservation (NPS 1991:5; OHP 1995:3), and that the documented Long Point Defense District consisting of these three sites, is eligible for listing in the California Register, and thus qualifies as a historical resource as a whole. Although the resource has been documented, no additional action has been taken to create a formally designated district.

The documented Long Point Defense District, consisting of the three military facilities listed above, would be affected by the Project as currently planned. However, project effects range from "no effect" to "adverse effect" depending upon the element in question. The most important of the three elements, the Base End Stations, would suffer the least amount of effect. Since these structures are located in a proposed habitat conservation area, there would be no effect to this element.

The second element in terms of significance is the Battery 240 site, much of which is outside the Project area on the Coast Guard parcel. The portion within the Project area would potentially be affected by Project plans, but can readily be preserved as part of the proposed recreational land use.

The most recent and least important of the three elements, namely Nike Air Defense Site LA-55-L, has the greatest potential for significant effect. If the above-ground buildings in the Project area—the missile arming building, the missile assembly building, the generator building, and the guard post—or the earthen revetment around the missile arming building are removed, it would constitute a potentially significant affect to this resource.

6621 Beachview Drive (Ishibashi Farmhouse Complex)

This farmhouse complex, dating to the 1920s, was home to members of the Ishibashi family, most notably Masaichi "Mas" and George Ishibashi, from 1936 to the mid-1990s except for a brief period during WWII. Son of the first Japanese immigrant to lease land and establish a farm on the Palos Verdes Peninsula, Mas

Ishibashi has also distinguished himself as the largest and probably the best-known farm operators in the area in the post-WWII period. Because of this connection and the family's well-documented contributions to the development of the peninsula in the early 20th century, this farmhouse complex is certainly of local historical interest.

The farmhouse itself is very modest in appearance, and has no architectural merit or other special characteristics. If the house and its environs were to qualify for the California Register, it would be under Criterion 2 through the association with an important person. Guidelines adopted by the California Office of Historic Preservation, however, provide that "properties associated with living persons are usually not eligible for inclusion" in the California Register, because "sufficient time must have elapsed to assess both the person's field of endeavor and his/her contribution to the field" (NPS 1991:16). In view of this provision, the current study concludes that the farmhouse complex at 6621 Beachview Drive is not eligible for listing in the California Register, and thus does not qualify as a historical resource as defined by CEQA. However, because of its long association with the Ishibashi family, including Mas Ishibashi, the complex does merit special planning considerations as a point of local historical interest.[2]

The Project plans call for the construction of a golf course at this location, which requires the demolition of the buildings, structures, and other related features in the complex. The Project as currently proposed would impact this site. However, since the complex does not meet CEQA's definition of a historical resource, such impact would not constitute a significant effect to a resource.

Other Construction Level Impacts

Although archeological resources are documented within the Project area, grading activities could result in the disturbance of previously unknown cultural resources. Therefore, unknown or not fully characterized archaeological resources could be discovered during site grading which could result in the destruction of important archaeological resources and the loss of cultural heritage and scientific information. Mitigation measures are recommended to reduce this potential impact to a less than significant level.

PALEONTOLOGICAL RESOURCES

[2] "Special consideration in local planning," as provided in the California Office of Historic Preservation's site recording guidelines, is a level of protection afforded to cultural resources that are not eligible for listing in the National Register of Historic Place or the California Register of Historical Resources and are not eligible for designation under an existing local ordinance, but that still posses a certain degree of historical interest to be recognized. In practice, such "special consideration" remains largely undefined by CEQA procedures and is left to the discretion of the Lead Agency.

5.4-2 *Implementation of the proposed Project may impact paleontological resources that may exist on-site but have not been documented. Implementation of recommended mitigation measures would reduce impacts to a less than significant level.*

The Monterey formation could yield fossil remains which are valuable for paleo-biological, paleo-environmental, and paleo-climatological studies. Grading could lead to the loss of valuable fossil resources and limit scientific knowledge regarding the geologic past of the site and surrounding area. Of note is the fact that grading associated with the Project could unearth fossil resources which may not have ever been discovered otherwise. The potential loss or destruction of fossil resources and the concomitant loss of scientific knowledge is considered a significant impact under CEQA and mitigation measures are recommended to reduce impacts to a less than significant level.

BURIAL SITES

5.4-3 *Implementation of the proposed Project may disturb human remains. Implementation of the specified mitigation would reduce impacts to less than significant levels.*

Human remains in a previously unknown burial site could potentially be encountered during construction activities associated with the proposed Project. Any alterations to human remains associated with Project implementation would be considered a significant adverse impact. However, implementation of the mitigation which details the appropriate actions necessary in the event human remains are encountered would reduce impacts in this regard to a less than significant level.

CUMULATIVE IMPACTS

5.4-4 *Cumulative development may adversely affect cultural resources. Resources are evaluated and mitigated on a project-by-project basis.*

Potential impacts would be site specific and an evaluation of potential impacts would be conducted on a project-by-project basis. This would be especially true of those developments located in areas considered to have a high sensitivity for cultural (archaeological, paleontological, and historical) resources. Each incremental development would be required to comply with all applicable State and Federal regulations concerning preservation, salvage, or handling of cultural resources. In consideration of these regulations, potential cumulative impacts upon cultural resources would not be considered significant.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements analyzed in the Impacts discussion.

ARCHEOLOGICAL/HISTORICAL RESOURCES

5.4-1a Site CA-LAN-103 (Rock Shelter and Shell Midden). The Project Applicant shall retain a qualified, City approved archaeologist to conduct archaeological testing in order to determine the depth, breadth, and nature of the contents of Site CA-LAN-103, and whether or not it qualifies as a historical resource. Such a testing program would consist of scientific excavation units, artifact analysis, and report preparation for a sample of the site area, so that a conclusion can be reached regarding site integrity and the research potential of its intact deposits.

If the testing program determines that Site CA-LAN-103 qualifies as a historical resource as defined in CEQA Guidelines Section 15064.5, three options are available to reduce impacts to a less than significant level:

- Capping the site to preserve in situ;
- Redesign to avoid impacting Site CA-LAN-103; or
- Retain a qualified archaeologist to prepare and implement a data recovery plan prior to issuance of a Grading Permit for the immediate area of CA-LAN-103.

5.4-1b Site 19-180589 (Base End Stations). Since the proposed Project would have no effect on the Base End Stations, the only further requirement regarding this site is to ensure its proper protection

during construction activities. No other treatment is recommended for this historical resource.

5.4-1c Site 19-180590 (Battery 240). Due to the proposed Project's potential to cause a change in the significance of this historical resource, one of the following mitigation options shall be implemented prior to Demolition Permit issuance:

- Option 1 (preferred). Project effects to this site shall be avoided by preserving the portion of the site within the Project area and incorporating it into the Project design in such a way as to retain the historic characteristics of this resource.

- Option 2 (if demolition is unavoidable). The historical and physical information about Battery 240 is to be preserved through comprehensive documentation at a level compatible to Level 2 of the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER).

Established in 1933 and 1967, respectively, HABS and HAER have been adopted by the National Park Service as the primary methods of preserving important information about architectural, engineering, and industrial sites of historic value, and are often initiated as the means of mitigating adverse effects of federal undertakings on such sites (NPS 1993:1). At Level 2, HABS/HAER requires detailed textual and photographic recordation, sketch maps and drawings of structural features, and historical documentation to record the subject property's history. The results of such documentation are to be made accessible to the public at one or more local repositories, such as the local history collection of the Palos Verdes Library and/or the Palos Verdes Historical Society's museum.

5.4-1d Due to the likelihood of encountering subsurface features or buried artifacts from the WWII era in the vicinity of Battery 240, earth-moving activities near the site shall be monitored by a qualified archaeologist.

5.4-1e Site 19-180591 (Nike Air Defense Site La-55-L). One of the following two mitigation options shall be implemented regarding disposition of Site 19-180591 prior to Demolition Permit issuance:

- Option 1. Project effects to this site shall be avoided by preserving components of the site and incorporating them into the Project design in such a way as to retain the historic characteristics of this resource.

- Option 2 (if demolition is unavoidable). The Project effects to this site shall be mitigated through recordation procedures compatible to Level 2 of HABS/HAER, identical to those recommended for Battery 240.

5.4-1f Site 19-180593 (Documented Long Point Defense District). Refer to Mitigation Measures 5.4-1b, 5.4-1c and 5.4-1e. If these recommendations are adopted, the Project's potential effects on the documented historic district would be reduced to a level less than significant.

5.4-1g 6621 Beachview Drive (Ishibashi Farmhouse Complex). Although not eligible for listing in the California Register, this farmhouse complex qualifies as a point of local historical interest. In order to reduce the Project impacts on the complex, the historical and physical data about the buildings, structures, and other related features shall be documented prior to Demolition Permit issuance.

Due to the local nature of the complex's significance, HABS-compatible procedures such as those recommended for Battery 240 and Nike Air Defense Site LA-55-L do not appear to be an appropriate approach in this case. Instead, the recommended scope of work consists of a general documentation of the complex's history and current conditions, and limited photographic recordation of its physical characteristics. The results of these procedures should be housed at one or more local repositories to facilitate public access.

5.4-1h Prior to Grading Permit issuance, the Project developer shall provide verification that a qualified archaeologist and/or an archeological monitor have been retained to implement the archeological monitoring program. This verification shall be in the form of a letter from the Project developer to the City of Rancho Palos Verdes.

The qualified archeologist shall attend any preconstruction meetings to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. The qualified archaeologist or archaeological monitor shall be present on-site during construction activity involving work in previously undisturbed soils. The archaeologist’s duties shall include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report.

5.4-1i In the event that cultural resources are discovered during grading/ construction activities, the archeologist shall have the authority to

divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The archaeologist shall contact City staff at the time of discovery. The significance of the discovered resources shall be determined by the archeologist, in consultation with City staff. City staff must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program shall be prepared and carried out to mitigate impacts. Any human bones of Native American origin shall be turned over to the appropriate Native American group for reburial.

5.4-1j All cultural remains uncovered during grading/construction activities shall be cleaned, cataloged and permanently curated with an appropriate institution. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the areal. Faunal material shall be identified as to species. Speciality studies shall be completed as appropriate.

PALEONTOLOGICAL RESOURCES

5.4-2a Prior to Grading Permit issuance, the Project developer shall provide a letter of verification to the City of Rancho Palos Verdes stating that a qualified paleontologist has been retained to implement the monitoring program. The qualified paleontologist shall attend the preconstruction meeting to consult with the excavation contractor. The paleontologist's duties shall include monitoring, salvaging, preparation of collected materials for storage at a scientific institution that houses paleontological collections and preparation of a monitoring results report. These duties are defined as follows:

5.4-2b The paleontologist or paleontological monitor shall be on-site to inspect for fossils during all excavation/grading activities. Monitoring shall be done full-time in those formations with a high sensitivity rating, and shall be half-time in those formations with a moderate sensitivity rating. The monitoring time may be increased or decreased at the discretion of the paleontologist in consultation with City staff. Monitoring shall occur only when excavation activities affect the geologic formation.

5.4-2c In the event that fossils are encountered during grading, the paleontologist shall have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. Because of the potential for

recovery of small fossil remains, it may be necessary to set up a screen-washing operation on-site.

5.4-2d Fossil remains collected during grading/construction activities shall be cleaned, sorted, repaired, cataloged, and then (with the permission of the owner of the property where the remains were collected) stored in a local scientific institution that houses paleontological collections. The qualified paleontologist shall be responsible for preparation of fossils to a point of identification, and submittal of a letter of acceptance from a local qualified curation facility. If the fossil collection is not accepted by a local qualified facility for reasons other than inadequate preparation of specimens, the Project paleontologist shall contact City staff to suggest an alternative disposition of the collection.

BURIAL SITES

5.4-3 In the event human remains are discovered during grading/ construction activities, work shall cease and an appropriate representative of Native American Indian groups and the County Coroner shall both be informed and consulted, as required by State law.

CUMULATIVE IMPACTS

5.4-4 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Cultural Resources have been identified following implementation of mitigation measures referenced in this Section.

5.5 GEOLOGY, SOILS AND SEISMICITY

The purpose of this Section is to describe the geologic soil and seismic setting of the Project area, identify potential impacts associated with the proposed Project, and recommend mitigation measures to reduce the significance of such impacts. Information in this Section is based on the *Geology, Soils and Seismicity Report* prepared by D. Scott Magorien, C.E.G. (refer to Appendix 15.5, *Geology, Soils and Seismicity Report*).

In preparation of the Geology, Soils, and Seismicity Report, a number of significant documents, as well as stereo-aired black and white aerial photographs dating as far back as 1928, were reviewed. The earliest report which addresses the pre-Marineland/Nike Missile facility geologic setting of the area is the 1946 U.S. Geological Survey Professional Paper 207, "Geology and Paleontology of the Palos Verdes Hills". Also reviewed were a series of post-Marineland geotechnical reports that had been prepared specifically for developing the former site for residential and recreational uses. These reports date back to the early 1970's when the Zuckerman Building Company sought to develop the property. Prior to 1970, the geologic conditions surrounding the U.S. Coast Guard property were analyzed and developed for the Nike Missile facility, which remains in much the same way it had originally been constructed.

LAW/Crandall and Neblett & Associates performed the most recent, in-depth geologic/geotechnical studies of the area.[1] These studies date back to 1991 and originally focused on sea cliff stability as part of a feasibility study for a Conditional Use Permit. Between 1991 and 1999 these two firms drilled numerous exploratory borings, performed detailed geologic mapping of the sea cliff, and analyzed numerous slope stability scenarios as part of their geologic hazards evaluation for the current Project. The studies and results of the LAW Crandall and Neblett and Associates were also thoroughly reviewed by the City of Rancho Palos Verdes Geotechnical Consultants. Based on the Committee's review, additional stability analyses were performed which further supported the overall conclusion that the Resort Hotel Area and the majority of the Upper Point Vicente Area are considered stable against deep-seated landsliding. Based on the years of study, aside from the slow, ongoing sea cliff erosion, no other significant geologic hazard was identified within the Project area. Overall, there has been little to no change in the overall condition of the sea cliffs for many years, as demonstrated in the review of aerial photographs dating back to 1928 (refer to the discussion below).

[1] These studies are available for review at the City of Rancho Palos Verdes City Hall.

EXISTING CONDITIONS

GEOLOGIC SETTING

The Project area occupies the entire area delineated as "Resort Hotel Area" (RHA) (former site of Marineland of the Pacific), and the topographically elevated area surrounding Rancho Palos Verdes City Hall, referred to as "Upper Point Vincente Area" (UPVA), both situated along the southern margin of the Palos Verdes Peninsula. The Palos Verdes Peninsula is a topographically and structurally high block of ground underlain by folded marine sedimentary and basaltic rocks of Miocene age. The bedrock is overlain by various surficial geologic units including marine and non-marine terrace deposits, sea cliff talus, landslide debris, and artificial (man-made) fill. The Peninsula slopes are cut by a series of marine terraces and terrace remnants that stair-step along the southern flanks of the peninsula. Thirteen principal terrace levels (i.e. marine benches) have been recognized by Woodring and others (1946). In the Hotel RHA, the terrace surfaces which once occupied this area have been modified by grading for the now-dismantled Marineland aquatic park. A partially-preserved marine terrace also occupies portions of the UPVA.

By far, the most common geologic hazards in the City Rancho Palos Verdes are land settlement, shoreline cliff erosion, active landslides and inactive landslides. Although the Project area is located within the seismically active region of Southern California, there are no documented active or potentially active faults projecting towards or transecting the Project areas. Moreover, there are no known large landslides within either the RHA or UPVA.

Upper Point Vincente Area

Topographically, the UPVA occupies a broad, man-made (i.e., graded) upper pad/platform and a smaller lower pad bounded by westerly- and southerly-facing slopes which descend down to Palos Verdes Drive South. The uppermost pad, on which City Hall is located, slopes gently to the south and rests at an elevation of between 345 and 360 feet above mean sea level(msl). The smaller lower pad is situated at an elevation ranging from about 310 to 330 feet msl and also slopes gently to the south. Both the upper and lower graded pads were created during construction of the Nike Missile facility during and following World War II. These pads contain a number of below-ground bunkers. The existing buildings for City Hall were part of the Nike Missile complex.

The westerly- and southerly-facing 100- to 270-foot high slopes that border the graded pads have inclinations which vary from as shallow as 3:1 (horizontal:vertical) to as steep as 1:1 along a southerly-facing, 100 foot-high man-made cut slope adjacent to Palos Verdes Drive South. However, the inclination of the majority of the natural slopes which bound the former Nike Missile facilities are generally in the range of 2:1

to 1 ½:1. The majority of the surface water drainage from the UPVA occurs as sheet flow onto Palos Verdes Drive South, and is ultimately discharged from pipelines over the coastal bluff.

Resort Hotel Area

The topography of the RHA is represented by a well-defined bench (i.e., marine terrace) that lies at an elevation between about 80 and 140 feet msl. This terrace/bench descends gently to the rim of a steep sea cliff, which then descends nearly vertically about 40 to 140 feet to sea level. The terrace represents an ancient wave-cut platform (tread) similar to the modern beach. Due to grading activities, the majority of the natural land surface was modified during World War II when the site was used to train CB's/heavy equipment operators. Almost the entire site was bulldozed, creating a number of deep trenches/pits up to about 20 feet deep.

The ancient marine terrace was further modified in the early 1950s during construction for the Marineland aquatic park. Due to past grading activities, natural drainage patterns across the area have been significantly modified. The bulk of the existing surface water drainage collects in four major swales which have notched near vertically into the top of the sea cliff and discharge into plunge basins 80 to 100 feet below the rim of the sea cliff. A number of gullies have also eroded 20 to 40 feet headward into the gently sloping area near the top of the sea cliff.

GEOLOGIC MATERIALS

Surficial Materials

Surficial materials within the UPVA and the RHA listed in order of increasing age are: artificial fill, beach deposits, native soils, slopewash and talus, landslide debris, and marine terrace deposits. The distribution of these materials is illustrated in Exhibit 5.5-1, *RHA Geologic Map*, and Exhibit 5.5-2, *UPVA Geologic Map*. The designations shown below, in parentheses, correspond to those shown on the maps.

Native Soils (not designated on maps). According to the U.S. Department of Agriculture Bureau of Soils Map (dated 1919), the native soils within the Project areas are known as Altamont clay adobe and clay loam. These soils, which form(ed) a 3- to 6-foot thick cap above the shaley bedrock of the Monterey Formation, are typically dark grey to black in color, contain varying amounts of decaying organic material (i.e., grasses and weeds) and bedrock fragments, and are generally moderately to highly expansive. Residual soil materials overlaying

Insert Exhibit 5.5-1, RHA Geologic Map

EXPLANATION

- **af** ARTIFICIAL FILL
- **Qb** BEACH DEPOSITS
- **Qta** SEA CLIFFS TALUS
- **Qls** LANDSLIDE
- **Qsw** SLOPEWASH DEPOSITS
- **af/Qt** UNDIFFERENTIATED ARTIFICIAL FILL AND TERRACE DEPOSITS
- **Qt** TERRACE DEPOSITS
- **Tb** BASALT
- **Tma** MONTEREY FORMATION: ALTAMIRA SHALE MEMBER
- GEOLOGIC CONTACT: QUERRIED WHERE QUESTIONABLE
- BUILDING SETBACK
- GEOLOGIC SETBACK
- FAULT: DOTTED WHERE CONCELED, QUERRIED WHERE QUESTIONALBE; ARROW INDICATES DIRECTION AND MAGNITUDE OF DIP
- FAULT SHOWING TREND AND DIP
- STRIKE AND DIP OF FRACTURE OR JOINT
- STRIKE AND DIP OF BEDDING
- ESTIMATED LIMITS OF LANDSLIDE DEBRIS; ARROWS INDICATE DIRECTION OF MOVEMENT

EXPLORATORY BORINGS

- PREVIOUS INVESTIGATIONS
- CURRENT INVESTIGATION BY NEBLETT & ASSOCIATES AND LAW CRANDALL (1999)
- BORING LOCATION AND DESIGNATION

N

0 150 300
APPROXIMATE SCALE IN FEET

Basemap provided by: RBF Consultants
Geology modified from: Law Crandall (9/99)

SOURCE: D. SCOTT MAGORIEN, CEG

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LONG POINT RESORT EIR

Resort Hotel Area Geologic Map

Exhibit 5.5-1

EXPLANATION

- **af** — ARTIFICIAL FILL
- **Qls(?)** — POSSIBLE LANDSLIDE
- **Qt** — TERRACE DEPOSITS
- **Tma** — MONTEREY FORMATION: ALTAMIRA SHALE MEMBER
- **Tb** — BASALT
- GEOLOGIC CONTACT; QUERRIED WHERE QUESTIONALBE
- STRIKE AND DIP OF BEDDING
- **NC-5** — EXPLORATORY BORING BY NEBLETT & ASSOCIATES (1999)
- STUCTURAL SETBACK LINE (BY NEBLETT & ASSOCIATES (2000)

N

0 150 300

APPROXIMATE SCALE IN FEET

Basemap provided by: RBF Consultants
Geology modified form: Neblett & Associates

0 150 300

SOURCE: D. SCOTT MAGORIEN, CEG

RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Upper Point Vicente Area Geologic Map

Exhibit 5.5-2

basaltic (i.e., volcanic) bedrock and nonresidual terrace-cover soils are reddish brown and consist of sandy clayey loam.

Due to widespread grading activities, the majority of these soils have been stripped away and used for regrading for Marineland and the Nike Missile site. Portions of undisturbed native soils remain within the northeastern corner of the RHA. In the past, prior to widespread development, the more gently sloping areas were cultivated for barley and lima beans.

In the UPVA, the soils mantling the slopes adjacent to City Hall and the former Nike Missile site have experienced relatively minor disruption from past and present development. The lower, more gently-sloping portions of this area have been used in the past for agricultural purposes.

Artificial Fill (af). Artificial fill consists of native soil and bedrock materials which have been excavated and placed across the majority of the RHA as either engineered fill or as non-engineered fill. Undocumented, non-engineered fill occupies a large portion of the former Marineland site where these collapsible soils attain thicknesses of approximately 30 feet. The thickness of the engineered fill soils vary from several feet to about 10 feet thick. Along several places on the sea cliff, fills consisting of hard rock boulders have been cast over the cliff in times past.

Artificial fill materials within the UPVA property occupy the area disturbed by past grading for the Nike Missile site. These materials consist of uncontrolled fill, parking lots, roadways bunker sites, etc.

Beach Deposits (Qb). Beach deposits occupying a 50- to 100-foot side strip in the tide zone are very coarse, chiefly pebbles, cobbles and boulders up to several feet in diameter derived from toppling of the rock units forming the adjacent sea cliff.

Soil-Slopewash Mixtures (QSW). A veneer of black to dark brown porous, silty clay and clayey silt soil-slopewash mixtures form a veneer on the natural slopes adjacent to City Hall and the U.S. Coast Guard site, along the top of the sea cliffs, and are mixed with talus deposits. Depths range from one foot to five feet. Vertical desiccation and tension cracks, occurring in these soils at the outer margins of the sea cliff, are at least three to four feet deep and extend up 1 to 20 feet inland of the outermost edge of the sea cliff.

Talus (Qta). Coarse talus deposits mantle the sea cliff to heights of 100 feet above sea level. They contain silt to boulder-sized debris derived from weathering of the cliff; their lowermost parts have been partly reworked by wave action during extreme high tides. These materials form a protective buffer zone against undercutting of the toe of the bluff by wave action. The finer-grained matrix and the talus is reddish in color, strongly suggesting it was derived from basalt, the underlying parent material.

Marine Terrace Deposits (Qtm). Marine terrace deposits occupy portions of both the RHA and the UPVA. They consist of dark gray to brown silt, sand, gravel and coarse rock fragments, resting on a wave-cut platform similar to the modern beach. These materials are most easily viewed along the rim of the sea cliff. The material is chiefly fine-grained and is subject to erosion.

Landslides. Refer to the *Landslides* discussion below.

Bedrock Formations

General. The entire Project area is underlain by the lower part of the Altamira Member of the Monterey Formation and basaltic intrusive rocks of Miocene age. The principal rock types, listed in order of decreasing abundance, are: soft (altered) to hard (unaltered) basalt, hard platy siliceous shale, hard to very hard siliceous shale and limestone/dolomite, soft to moderately hard sandy shale, and soft granular to fine-grained silty volcanic ash (tuff). All these rocks are intermixed on a small to large scale and their distribution is shown on the accompanying Geologic Maps (Exhibits 5.5-1 and 5.5-2).

Basalt (Tb). Altered basaltic rock is by far the most abundant bedrock (approximately 85 percent of the sea cliff) underlying the Project area and is well-exposed on the face of the cliff, as well as on the 100-foot high cut slope adjacent to the westbound land of Palos Verdes Drive South. The basalt contains inclusions and septa of sedimentary rock and intrusions of granular to silty, moderately altered tuff (as crosscutting veins and dikelets) in chaotic disarray due, in part, to the injection of basalt into the soft sediments beneath the sea floor in Miocene time and, in part, to uplift and later deformation associated with the Pleistocene history of the Palos Verdes Hills.

Most of the basaltic rocks exposed above the shoreline exhibit moderate to high degrees of hydrothermal alteration. The altered basaltic rocks vary in color from light to dark reddish brown, are moderately hard to moderately soft and are massive. Although noticeably softer than the fresh basaltic rocks, exposures of the altered rocks stand at steep angles along the sea cliff. The altered basaltic rocks consist primarily of coarse to medium grains of altered feldspars and mafic minerals. The grains are cemented by calcite, silica, clay minerals and gypsum. Soft, punky pockets of ash ranging in color from pale-gray to red are locally present. Where observed, these pockets do not exceed a few feet in maximum dimension. The altered basaltic rocks also are locally “honeycombed” by numerous cross-cutting gypsum veinlets to form a rough “stock-works” texture. Some barite and siliceous fracture fillings have also been observed.

Altamira Shale (Tma). Sedimentary rocks exposed within the Project areas belong to the Altamira Shale Member of the Monterey Formation, a stratigraphically thick bedrock unit of marine origin. Sedimentary rock types identified within the Project

areas are in decreasing order of abundance, shale, siltstone, carbonate rocks, chert, sandstone, and rocks containing sediments and air-fall deposits of volcanic origin. Throughout most of the Palos Verdes Peninsula, the Altamira Shale forms a thick, stratigraphically continuous sequence of distinctly layered rocks. However, exposures in and around the Project areas are scattered and are aerially as well as stratigraphically discontinuous. The largest continuous exposure is in the sea cliff along the southwestern edge of the RHA.

These scattered exposures of Altamira rocks represent inclusions within a thick and aerially extensive mass of the somewhat younger basaltic rocks. Stratigraphic continuity has been destroyed by several episodes of volcanic intrusion that have shattered and shifted the bedding of the Altamira shale. Many of these sedimentary bedrock inclusions exhibit no prevailing bedding orientations (i.e., strike and dip), and they range in size from less than one inch to several tens of feet in maximum dimension.

The intimate contact between the intrusive volcanic and sedimentary rocks has resulted in widespread and locally-pervasive hydrothermal alteration of the sedimentary inclusions. This alteration is characterized by baking of the margins of the inclusions and by hardening due to widespread silicification. The gross effect is that the altered sedimentary rocks commonly are harder, more resistant to erosion than much of the volcanic rock. In addition, the strength of these rocks has been increased, which leads to a greater degree of slope stability. The sedimentary rocks also exhibit widespread fracturing, commonly at high angles to bedding. The degree of this fracturing ranges from moderate to pervasive. The fractures apparently occurred in response to disruption of the sedimentary beds by the volcanic intrusions. The majority of the isolated failures (i.e. landslides) on the face of the sea cliff are controlled in large part by these fractures.

The shale units are marked by prominent thin bedding and they range from hard, platy rocks to soft, waxy ones. They are widespread throughout the Altamira inclusions and range in color through dark grey, greenish brown and reddish brown. Fissility ranges from moderate to nonexistent in many of the shale intervals, so that these rocks commonly fracture across bedding planes more readily than they separate along them. This loss of fissility is largely due to the welding of the beds by heat and chemical action related to hydrothermal alteration.

The siltstones are medium- to thick-bedded, fine grained, and range in color from dark gray through greenish grey to greyish brown. They range from hard to very hard. Several of the numerous exploratory borings encountered noticeable amounts of granular, waxy material (possibly bentonite clay) apparently of volcanic origin.

The carbonate rocks include both limestone and dolostone. Where exposed or penetrated by exploratory borings, these units are thick-bedded to massive. They are

very hard, having for the most part been silicified and, locally, at least partially replaced by chert. Color of the fresh rock ranges from brownish grey to very dark grey. Light grey alteration rims are present along some fractures and contacts.

Surface exposures of chert are rare, but several thick intervals were penetrated by exploratory borings. The chert layers are massive, microcrystalline rocks. They are very hard and fracture conchoidally. Color ranges from dark grey to brownish grey.

Based on the Grading Plan (October 2000), the Project would involve excavations up to 10 to 15 feet deep within the bedrock materials. The Project Applicant proposes to redistribute all excavated materials as engineered fill within the Project area. Experience in the area indicates that the bedrock can be broken by tractor-mounted rippers. However, some large boulders would likely be generated during grading and they would require special handling, or removal from the property. Any oversize material generated in the cut area(s) would be: 1) incorporated into deeper fills on-site, 2) reduced to conform to the standards proposed by the soils engineer by use of a hydraulic breaker, portable rock crusher, or both, then returned to the Project as competent fill, or 3) utilized as features in the golf course. Blasting would not be necessary during grading for the Project.

BEDROCK STRUCTURE

Due in part to folding and to basalt intrusion, the large septa and inclusions of sedimentary rocks exhibit a wide variety of bedding plane attitudes. Large masses of Altamira shale exposed in the sea cliff below the RHA display adversely oriented, seaward-dipping bedding planes which have given rise to at least one (1) of the five (5) documented landslides along the sea cliff. However, much of the bedding is contorted and widespread basaltic intrusions have produced more stable conditions along the majority of the sea cliff. In general, the landslides which have developed are of limited extent and do not pose a significant gross stability problem.

Based on the most recent geological mapping by Neblett & Associates and Law Crandall (1999), nine (9) noticeable bedrock faults have been observed on the face of the sea cliff These faults typically tend northwest to northeast, dip at high angles (75 to 85 degrees) and produce minimal offset. These faults are not considered “active” or “potentially active,” and are most likely related to adjustment in the rock sequence during tectonic folding and basaltic intrusions.

GROUNDWATER

Groundwater has not been encountered in the many exploratory borings which have been drilled within the Project areas over the last 40+ years. Neither seeps nor springs have been noted by researchers during the last century. It is apparent that the lack of

groundwater beneath the area (with the exception of groundwater at or near sea level) can be expected given the pervasively fractured nature of the bedrock and the site's immediate proximity to the sea. In general, the majority of the bedrock beneath both Project areas consist of non-waterbearing sedimentary and volcanic rocks. Groundwater flow in these materials would be restricted to fractures within the bedrock.

No evidence of perched groundwater was found during the course of the numerous subsurface investigations within the Project area. No laterally continuous impermeable layers (such as bentonitic clay) have been found which could conceivably produce a perched groundwater condition.

GEOLOGIC HAZARDS

The primary geologic hazards within the Project area are those associated with landslides and sea cliff erosion, and strong ground motion from earthquakes. The landslide hazard on the Palos Verdes Peninsula is well-documented and is represented most notably by the active Portuguese Bend and Abalone Cove landslides, and the most recent landslide at Ocean Trails Golf Course, located about five miles east of the Project area. Numerous other active, dormant or ancient landslides are present along the south coastal shoreline of Rancho Palos Verdes.

Hazards associated with earthquakes include primary hazards (ground shaking and surface rupture) and secondary hazards (liquefaction, seismic settlement, seismically induced landsliding, tsunamis, and seiches).

Faulting and Seismicity

In accordance with the California Department of Conservation Division of Mines and Geology, a fault is defined as a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. An inactive fault is a fault that has not experienced earthquake activity within the last 1.6 million years. An active fault is one which has experienced movement/activity in the past 11,000 years. A fault which has moved within the last 1.6 million years, but not proven by direct evidence to have moved within the last 11,000 years, is considered potentially active. No active or potentially active faults are located within or project towards the RHA or the UPVA.

The Palos Verdes Peninsula, like most of Southern California, is part of a seismically active region. Although a number of faults have been identified within the Project site, none of the faults observed is considered active or potentially active, according to the numerous studies performed within the Project area. There are a number of faults in the general Los Angeles area which have been identified as active or which are considered potentially active. None of these faults passes through the subject property, thus the likelihood of fault-related ground rupture affecting the site is negligible.

The Alquist-Priolo Act of 1972 (now the Alquist-Priolo Earthquake Fault Zoning Act, Public Resources Code 2621, Division 2, Chapter 7.5) regulates development near active faults so as to mitigate the hazard of surface fault-rupture. Under the Act, the State Geologist is required to delineate "special studies zones" along known active faults in California. The Act also requires that, prior to approval of a project, a geologic study be conducted to define and delineate any hazards from surface rupture. A geologist registered by the State of California, within or retained by the lead agency for the project, must prepare this geologic report. A 50-foot setback from any known trace of an active fault is required. The Project area is not currently known to be located within an Alquist-Priolo Earth Fault Zone.

The Modified Mercalli intensity scale, developed in 1931, measures the intensity of an earthquake's effects in a given locality, and is perhaps much more meaningful to the layman because it is based on actual observations of earthquake effects at specific places. On the Modified Mercalli intensity scale, values range from I to XII. The most commonly used adaptation covers the range of intensity from the conditions of "I -- not felt except by very few, favorably situated," to "XII –damage total, lines of sight disturbed, objects thrown into the air." While an earthquake has only one magnitude, it can have many intensities, which decrease with distance from the epicenter.

Ground motions, on the other hand, are often measured in percentage of gravity (percent g), where g = 32 feet per second per second (980 cm/sec^2) on the earth. One hundred percent of gravity (1g) is the acceleration a sky diver would experience during free-fall. An acceleration of 0.4 g is equivalent to accelerating from 0 to 60 miles (0-97 km) per hour in about 7 seconds. The force that one would feel during an earthquake with 0.4g acceleration would be similar to the force one would feel when standing in the back of a truck accelerating very rapidly onto a freeway. One difference between the earthquake and the ride in the truck is that in the earthquake one would accelerate backward and forward for many cycles. That is why it is difficult to stand during episodes of strong ground shaking.

Ground shaking accompanying earthquakes on any number of faults within the greater Los Angeles area could be expected to be felt within the Project area. However, the intensity of ground shaking would depend upon the magnitude of the earthquake, the distance to the epicenter, and the geology of the area between the epicenter and the property. A listing of recognized active faults, their closest distances to the property, and the maximum expected earthquake along each fault are presented in Table 5.5-1, *Summary of Fault and Generalized Earthquake Information*. Also presented are generalized evaluations of maximum ground shaking on site for the maximum earthquakes and generalized predictions of the likelihood of such events occurring. The locations of the major faults which could potentially produce significant ground shaking at the site are illustrated on Exhibit 5.5-3, *Map of Quaternary Faults in Southern California.*

In addition to the faults identified on Table 5.5-1, it should be noted that strong movement along the Cabrillo fault, located approximately 2½ miles to the east of the Project site, could also have some ground shaking effects, since recent findings have indicated that there has been some geologically recent movement of the offshore segment of the fault. This fault may, therefore, be considered at least potentially active.

The most severe ground shaking would be expected to accompany a large earthquake on the Palos Verdes Fault. A moment magnitude(m) 7.1 earthquake on this fault could produce a maximum horizontal ground acceleration of about 0.6g, and Modified Mercalli intensities in the range of VII to IX within the Project area.

Neither the RHA of the UPVA has specific geologic conditions that make it particularly vulnerable to major earthquake damage. Subsurface conditions are not favorable for liquefaction and the high sea cliff negates potential tsunami damage to areas inland of the bluff. The most severe seismic effects that could be expected would be localized spalling of detached blocks of ground along parts of the sea cliff and/or partial movement/reactivation of the existing landslides exposed on the sea cliff. The geologic setback line established by the various geotechnical researchers takes this potential spalling effect into consideration.

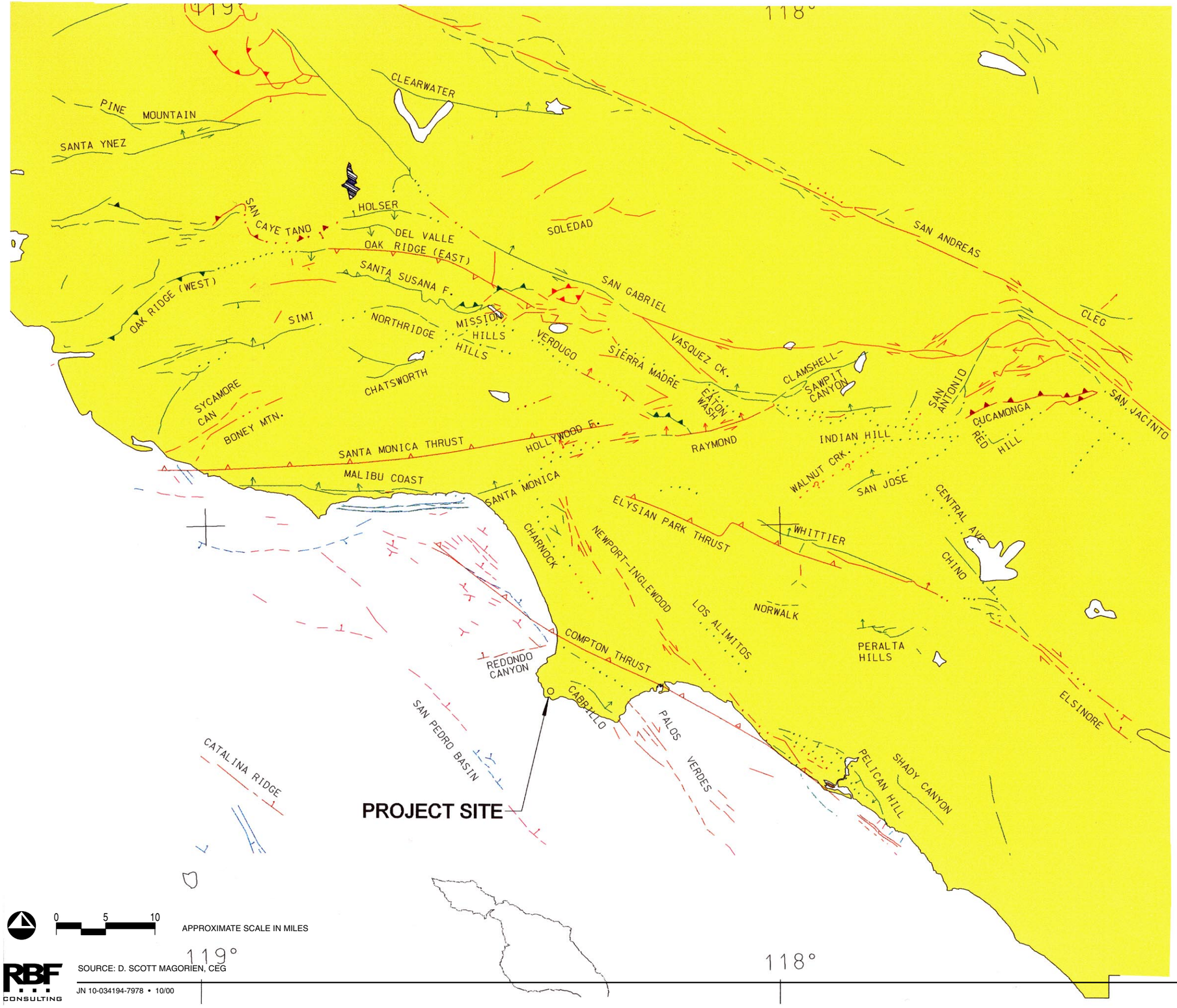
Damage from ground rupture on site is extremely unlikely because no known active faults cross the Project area; however, the proposed Project site could be subject to moderate to high ground shaking in the event of a major earthquake along either the Palos Verdes Fault, Compton (Blind) Thrust Fault, or the Newport-Inglewood fault or other regional faults.

Secondary earthquake hazards include liquefaction, ground lurching, lateral spreading, seismically induced settlement, tsunamis, and earth-induced landsliding. The most severe seismically induced effects that could be expected would be localized spalling (i.e., outward heaving) of detached blocks of bedrock and any overlying marine terrace deposits along parts of the sea cliff/bluff and/or reactivation of the three landslides on the sea cliff.

TABLE 5.5-1
SUMMARY OF FAULT AND GENERALIZED EARTHQUAKE INFORMATION

Fault	Distance from Site (miles)	Largest Expected Earthquake Richter Magnitude	Expected Level of Ground Shaking at Site	Likelihood of Occurrence
Palos Verdes	5	7.1	High to Very High	Moderate
Redondo Canyon	5	4.5	Low to Moderate	Moderate
Compton (Blind Thrust Fault)	7	6.8	Moderate to High	Moderate

Newport-Inglewood	12	6.9	Moderate to High	Moderate
Malibu Coast/Hollywood	21	6.4	Moderate	Low
Elysian Park (Blind) Thrust Fault	21	6.7	Moderate	Moderate
Whittier-Elsinore	28	6.8	Low to Moderate	Moderate
Raymond	30	6.5	Low to Moderate	Low
San Fernando/Sierra Madre	34	6.7	Low	Moderate
San Jancinto	34	6.7	Low	Moderate
San Andreas	58	7.8	Low	High



SOURCE: D. SCOTT MAGORIEN, CEG

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EXPLANATION

FAULT TRACES ON LAND SHOWN AS SOLID WHERE WELL LOCATED, DASHED WHERE UNCERTAIN OR INFERRED, DOTTED WHERE BURIED. ARROWS ALONG FAULT INDICATE SENSE OF STRIKE SLIP MOVEMENT; SAWTOOTH ON UPTHROWN BLOCK OF REVERSE FAULT; SOLID WHERE EMERGENT, OPEN WHERE BLIND. TICK MARK ON DOWNTHROWN BLOCK (SLIP TYPE UNKNOWN). ARROW ON FAULT INDICATES DIP DIRECTION. SOURCES OF DATA INCLUDE FISCHER AND MILLS (1991); JENNINGS(1994); LEGG AND KENNEDY (1991)

FAULT RECENCY CLASSIFICATION

- FAULTS THAT DISPLACE HOLOCENE (~ 10 ka) OR LATEST PLEISTOCENE (~ 20 ka) DEPOSITS OR GEOMORPHIC SURFACES.
- FAULTS THAT DISPLACE LATE QUATERNARY (~ 780 ka) DEPOSITS OR GEOMORPHIC SURFACES.
- QUATERNARY FAULTS (1.8 Ma).
- FAULTS THAT DISPLACE PRE-QUATERNARY DEPOSITS. RECENCY OF LAST DISPLACEMENT FOR OFFSHORE FAULTS GENERALLY NOT KNOWN. ONLY SELECTED FAULTS FROM JENNINGS (1994) ARE SHOWN.

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10 0 10
APPROXIMATE SCALE IN MILES

LONG POINT RESORT EIR

Map of Quaternary Faults in Southern California

Exhibit 5.5-3

Liquefaction. Seismic ground shaking of relatively loose, granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. Liquefaction is caused by a sudden temporary increase in pore water pressure due to seismic densification or other displacement of submerged granular soils. Liquefaction more often occurs in areas underlain by young alluvium where the groundwater table is higher than 50 feet below the ground surface. There are no such conditions within either the RHA or UPVA.

Ground Lurching. Certain soils have been observed to move in a wave-like manner in response to intense seismic ground shaking, forming ridges or cracks on the ground surface. Areas underlain by thick accumulations of slopewash and alluvium appear to be more susceptible than bedrock to ground lurching. Under strong seismic ground motion conditions, lurching can be expected within loose, cohesionless soils, or in clay-rich soils with a high moisture content. Generally, only lightly loaded structures such as pavement, fences, pipelines and walkways are damaged by ground lurching; more heavily loaded structures appear to resist such deformation. Where deposits of loose terrace sands and slopewash exist on the Project site, ground lurching may occur.

Lateral Spreading. Lateral spreading involves the lateral displacement of surficial blocks of sediment (i.e., alluvium, terrace sands) as a result of liquefaction in a subsurface layer. As previously stated, the liquefaction potential within the Project area, however, is considered to be nonexistent.

Seismically Induced Ground Settlement. Strong ground shaking can cause settlement by allowing sediment particles to become more tightly packed, hereby reducing pore space. Unconsolidated, loosely packed alluvial deposits and beach sand are especially susceptible to this phenomenon. Poorly compacted artificial fills may also experience seismically-induced settlement. Unconsolidated soils such as highly disturbed landslide debris, colluvium and beach sand are present in the Project area and are subject to seismically-induced ground settlement.

Tsunamis. A tsunami is a seismic sea-wave caused by sea-bottom deformations that are associated with earthquakes beneath the ocean floor. The hazard from tsunamis is considered to be low given the elevated nature of the proposed Project site.

Seiche. The Project area is not located downslope of any large bodies of water that could adversely affect the Project area and, therefore, the likelihood of earthquake-induced dam failure or seiches is considered remote.

LANDSLIDES

Certain regions in the Palos Verdes area are known for being susceptible to landsliding. Two large active landslides on the Palos Verdes Peninsula, the Abalone Cove Landslide and the Portuguese Bend Landslide, are located approximately 1.1 and 1.6 miles east-northeast of the site, respectively. In the City of Rancho Palos Verdes, many of the areas recognized as susceptible to landsliding have been placed within building moratorium areas pending demonstration that the indicated slides either do not exist or can be developed safely.

The most recent landslide to occur within Rancho Palos Verdes was the 17-acre Ocean Trails Golf Course (OTGC) landslide which occurred approximately two years ago. This was a well documented ancient landslide that became reactivated. The OTGC landslide moved along a laterally continuous bentonite clay layer. No such clay layer is known to underlie the Project area.

Factors conducive to the movement of the three notable landslides, as well as other landslides in the City, include the structural orientation of the bedrock units involved (unsupported beds dipping seaward), high ground water, and the presence of numerous, laterally extensive tuff/bentonite clay beds, including the Portuguese tuff, within the stratigraphic section. These tuff clay beds have altered to bentonite which, under conditions of high moisture content, becomes weak and susceptible to sliding, such as occurred at Ocean Trails Golf Course. The Portuguese tuff is a distinctive mappable unit in the Palos Verdes areas and is not known to occur beneath the Project area. No obvious bentonitic units have been documented in the sea cliff. The underlying bedrock, in large part, consists of basalt with inclusions of Altamira shale units which have moderately folded or crenulated. Mechanics of the basalt intrusion have effectively separated the Altamira Shale into disconnected sections or bodies and this, coupled with the variable bedding orientation, appears to preclude the likelihood of long continuous planes of weakness occurring within the bedrock units beneath the site. Moreover, much of the void space in the brecciated, fractured and disjointed rock structure created by the intrusive volcanic action has been secondarily cemented with calcareous (dolomitic), siliceous, and sulphur-rich minerals. Accordingly, the risk of large scale landsliding at the Long Point site is further reduced. Point Vincente and Long Point are headland areas considered to be resistant to rapid erosion or sliding, in large part due to the primary and secondary effects of the basaltic intrusions.

Five relatively minor landslides have been documented along the sea cliff below the RHA. These slide masses occur where large blocks of Altamira Shale are exposed on the face of the sea cliff. These landslides have resulted from the steep topography, weakened rock on the face of the bluff, internal strength of the surficial terrace deposits and, to a somewhat lesser degree, unsupported bedding within the bedrock. A relatively larger landslide labeled “Qls” as depicted in Exhibit 5.5-2, *UPVA Geologic Map*, has been postulated within the southeast corner of the UPVA. Additional

exploratory drilling would be necessary to further evaluate the presence, or absence, of this suspected landslide.

SEA CLIFF STABILITY

The coastline along the southern margin of the RHA features a bold, continuous sea cliff that ranges in height above sea level from a low of about 40 feet at its southern end to a high of 145 feet along the western margin of the area. In vertical profile the sea cliff consists of an upper steep bedrock face that is topped by a less steep slope cut in the overlying terrace deposits. Much of the lower part of the sea cliff within the western portion of the RHA is mantled by a near-continuous apron of talus/slopewash.

The stability of sea cliffs is dependent upon a variety of factors. These factors include height and steepness, geologic materials and structure, water, and the strength of materials.

In the RHA, the east- and west-facing sea cliffs expose hard, well-bedded Altamira Shale Member of the Monterey Formation. The southern promontory along the shoreline is primarily weathered basalt and the 50-foot high terrace on the eastern and western sides of the promontory expose artificial fill and terrace deposits.

The cliff faces and exploratory borings reveal the shales to be the hardest and typically the more erosion-resistant rock type within the Project area. Despite being well-bedded and moderately fractured, the shale generally has no apparent through-going planes of weakness, such as continuous weathered tuff/bentonite clay beds that would promote in translational type failures. There are portions of the cliff face that expose locally unsupported bedding, yet there is no evidence that these sections of rock may fail. The basalt has intruded so pervasively that bedding planes are disrupted and discontinuous thus precluding simple slippage as a primary mode of failure.

Cliff failure in the shales occurs primarily by toppling when near-vertical joint sets are sufficiently undermined. This likely occurs in small segments as no large-scale evidence of recent rockfall or collapse is evident on the beaches or in the historic aerial photographs.

In slight contrast, the massive, weathered and hydrothermally altered basalt is softer than the shales and thereby erodes somewhat easier. The somewhat granular texture of the basalt allows for absorption of salt water into the surfaces of the rock, and may even allow some capillary of “wicking” effects. This means that at heights above the constantly wetted surf zone, near the upper edge of wicking effects, but below upper levels of occasional seawater wetting by splash, high tides, and storm waves, is a zone of rock which becomes wetted occasionally and later dries. This wetting and drying effect allows salt to crystallize in near surface pores of the basalt and pry loose shallow layers of the basalt. Since the glassy, smooth-surfaced, cemented rocks of the

Altamira Member resist absorption of the salt into the surface, they are less susceptible to this surficial erosive process. Thus the basalt weathers faster than the indurated Altamira Shale. It is this feature of the rock that apparently determines the rate and mechanism of sea cliff retreat. The mechanism is characterized by raveling rather than by large scale failures. Since the basalt has intruded into the shales in broad bands, the raveling basalt undermines the fractured shales and toppling occurs.

The eastern and western flanks of the RHA promontory expose thick accumulations of fill and terrace deposits. These soils are far softer than the surrounding bedrock, yet still maintain vertical cliff faces. This geometry is a result of an erosion resistance foundation rock below relatively well-consolidated soils and high rates of the toe area erosion, which carries off the talus before it accumulates. This mechanism is the representative mode of failure for the fills and terrace materials found adjacent to the surf zone of the site. Locally, existing fills at the edge of the 50-foot high terrace, on the eastern flank of the promontory, are subject to erosion or topple failure of the type described.

The appearance of the sea cliff itself indicates gross stability, with bedrock slopes commonly standing in excess of 60 degrees and locally at or near vertical. Much of this feature, particularly its lower part, is cut into relatively hard basaltic rocks. However, despite the considerable expanse of daylighted bedding, the vast majority of the sea cliff is not considered prone to large-scale landsliding for the following reasons:

- The sedimentary rocks have been hardened by hydrothermal alteration that has driven out moisture, lowered permeability, and welded the units together both across and along their bedding surfaces. Although much of the section is thin bedded, fissility has essentially been destroyed, so that where beds do dip out of the sea cliff unsupported, they stand as high, near-vertical faces.

- The bedding is convoluted and corrugated through the section so that the entire mass is interlocked within itself and anchored by zones that dip landward or parallel to the sea cliff. The section is much broken by joints and fractures oriented at high angles to the bedding.

- There are no laterally continuous weak tuff/bentonite clay beds.

Geomorphic evidence clearly indicates that sea cliff retreat is and will continue to be a very slow process along this stretch of shoreline. The relative evenness of the shoreline indicates that retreat has been a gradual and generally uniform process rather than an episodal one characterized by the sudden slumping or sliding of large blocks of ground moving as discrete masses. No indication of large to moderate-scale landsliding is evident anywhere, although small scale collapse of the sea cliff have been documented.

SEA CLIFF EROSION

The sea cliff is an erosional feature whose presence indicates that, for the past several thousand years, the shoreline has been slowly migrating in a landward direction. Erosion along the top of the bluff is caused by a combination of two agents. The first of these comprises rainfall and runoff from terrestrial sources that flow over the sea cliff, both in gullies and as sheet-flow, to incise and undercut parts of the face of the cliff. The second agent is the ocean which attacks and removes material from the base of the sea cliff, leaving higher parts unsupported and subject to collapse.

The erosion occurs intermittently and gradually over a period of years and results in the headward (landward) movement of the cliff. Although there are no precise measurements of the rate of such erosion, it is the opinion of the Project geotechnical engineer (Neblett & Associates/Law Crandall) that the average rate would be on the order of only one inch per year or less. Locally, there are areas that may have somewhat greater erosion rates.

The main factor governing the rate of erosion is the hardness of the bedrock both within the sea cliff and along much of the near-offshore area. Much of the intratidal area adjacent to the property is marked by wide, shallow wave-cut platforms of hard basaltic rocks that dissipate wave energy. The presence of widespread talus deposits along the lower reaches of much of the sea cliff indicates that marine erosion is less significant here than subaerial or terrestrial erosion.

On the basis of visual examination of the existing sea cliff, logs of the exploratory borings, and the stability calculations, a geologic setback line for the property has been defined by Law/Crandall (1991), Vonder Linden (1989), and Converse, Davis and Associates (1971a, 1971b) and it appears on Exhibit 5.5-1, *RHA Geologic Map*. Assuming that future site development does not result in a substantial increase in runoff that erodes the bluff edge, the setback line shown represents a limit beyond which sea cliff retreat would not be expected to migrate within the next two hundred years. This limit averages about 50 feet from the bluff edge; it is closer to the edge in some areas and farther away in others. The differences reflect local geologic conditions. This limit is not meant to be a precise foundation setback line; however, it can be used as an approximate delineation of the “coastal structure setback” line referred to in Section 17.72.040(c) of the City Development Code, which requires all new permanent structures to be set back a minimum of 25 feet from the coastal setback. Essentially, this line should be interpreted as the limit of any future development activities. Beyond, i.e., oceanward of this line, only open space uses and minor structures (no roadways or structures) are allowed.

IMPACTS

Significance Criteria

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist form used during preparation of the Project Initial Study as contained in Appendix 15.1, *IS/NOP/Correspondence*. The Initial Study includes questions relating to geology/soils and mineral resources. The issues presented in the Initial Study Checklist have been utilized as thresholds for significance in this Section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

Geology and Soils

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Impact Statement 5.5-1);
  - Strong seismic ground shaking (refer to Impact Statement 5.5-1);
  - Seismic-related ground failure, including liquefaction (refer to Impact Statement 5.5-1);
  - Landslides (refer to Impact Statement 5.5-1);

- Result in substantial soil erosion or the loss of topsoil (refer to Impact Statement 5.5-1);

- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (refer to Impact Statements 5.5-1, 5.5-2 and 5.5-3);

- Be located on expansive soils, as defined in Table 18-1 B of the Uniform Building Code (1994), creating substantial risks to life or property (refer to Impact Statement 5.5-4);

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater (refer to Section 10.0*, Effects Found Not to be Significant*);

Mineral Resources

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State (refer to Section 10.0*, Effects Found Not to be Significant*); and/or

- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General Plan, specific plan or other land use plan (refer to Section 10.0*, Effects Found Not to be Significant*).

The level of geotechnical and landform information contained herein is adequate to analyze the potential Project effects on earth resources and landforms, and to determine appropriate mitigation measures. For certain items, the Project geotechnical engineer has recommended further testing and review of on-site conditions as part of the final design work. This additional work would further refine details for site design, however, it is not anticipated to alter the conclusions of significance contained herein. In accordance with CEQA case law, this later additional refinement is not a deferral of mitigation. Rather, it is a design refinement, consistent with the commitment to mitigation included in this EIR. Refer to Section 3.0, *Project Description, for a detailed description of the proposed development.*

Potential impacts associated with the Project area's topography, soils, and the region's seismic activity are identified below. Mitigation measures are provided to reduce the significance of impacts.

SEISMICITY

Rupture of a Known Earthquake Fault

5.5-1 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with rupture of a known earthquake fault. Analysis has concluded, based on the available data, that a less than significant impact would occur in this regard. Project compliance with the City Development Code and the California Building Code would maintain potential impacts at less than significant levels.*

Based on the following available data, Project implementation is anticipated to result in a less than significant impact regarding the exposure of people/structures to potential substantial adverse effects associated with seismic activity:

- No active or potentially active faults are located within the Project site or towards the RHA or the UPVA;

- Of the faults located in the general Los Angeles area identified as active or which are considered potentially active, none pass through the subject property. Therefore, the likelihood of fault-related ground rupture affecting the site is negligible; and

- The Project area is not currently known to be located within an Alquist-Priolo Earth Fault Zone.

Numerous controls would be imposed on the proposed Project through the permitting process. In general, the City regulates development (and reduces potential geologic impacts) under the requirements of the California Building Code, the Alquist-Priolo Special Studies Zone Act, local land use policies and zoning, and Project-specific mitigation measures. The Project would be subject to compliance with the City's Development Code, including but not limited to Section 15.04.010, [California] Building Code and Section 15.040.040, Building Code Amended- Seismic Safety Requirements. In addition, the City requires that grading plans and erosion control measures be developed and implemented for the proposed Project.

Strong Seismic Ground Shaking

5.5-2 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced ground shaking. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

Given the highly seismic character of the Southern California Region, moderate to severe groundshaking can be expected within the Project area due to moderate to large earthquakes on the nearby Palos Verdes Fault or other nearby faults (i.e. Compton Blind Thrust Fault). Therefore, impacts associated with seismically induced ground shaking would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of mitigation requiring that an engineering geologist perform additional design-level geotechnical studies, as well as prepare and submit a report for City approval, to provide the adequate level of information to properly design and engineer the Project. Impacts associated with ground shaking would be further reduced through compliance with the City Development Code and the California Building Code.

Seismically Induced Landslides

5.5-3 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced landslides. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

Strong earthquake-generated ground motions can worsen the existing unstable slope conditions along the seacliff/bluffs with in the RHA. The most common types of

earthquake induced landsliding in terrain similar to that in the Project area are soil slips, shallow slumps, shallow slides within the marine terrace deposits, and rockfalls on the seacliff, Moreover, existing landslides could be reactivated as the result of strong ground motion from future nearby earthquakes. Therefore, impacts associated with seismically induced landslides would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified mitigation (refer to the *Landslide* discussion below for greater details).

Other Seismically Induced Hazards

5.5-4 *Development of the proposed Project may increase the number of people/structures exposed to effects associated with seismically induced liquefaction, ground lurching, lateral spreading, settlement and/or tsunamis. Analysis has concluded, based on the available data, that a less than significant impact would occur in association with these hazards. Project compliance with the City Development Code and the California Building Code would maintain potential impacts at less than significant levels.*

Liquefaction. Project implementation is anticipated to result in a less than significant impact regarding the exposure of people/structures to potential substantial effects associated with liquefaction since the subsurface conditions favorable for this hazard are not present within either the RHA or the UPVA. These conditions include the following:

- Relatively loose, granular soils that are saturated or submerged are not present; and

- The Project area is not underlain by young alluvium where the groundwater table is higher than 50 feet below the ground surface.

Ground Lurching. As previously noted, lurching can be expected under strong seismic ground motion conditions within loose, cohesionless soils, or in clay-rich soils with a high moisture content. Ground lurching may occur since deposits of loose terrace sands and slopewash exist on the Project site. Generally, only lightly loaded structures proposed on the Project site such as pavement, fences, pipelines and walkways would be damaged by ground lurching, while more heavily loaded structures would generally resist such deformation. Based on this data, ground lurching is not considered to be a significant impact on the proposed development.

Lateral Spreading. Lateral spreading involves the lateral displacement of surficial blocks of sediment (i.e., alluvium, terrace sands) as a result of liquefaction in a subsurface layer. As discussed above, the liquefaction potential within the Project area is considered to be nonexistent. Therefore, Project implementation is anticipated

to result in a less than significant impact regarding the exposure of people/structures to potential substantial adverse effects associated with lateral spreading since the conditions favorable for this hazard are not present within either the RHA or the UPVA.

Settlement. Strong ground shaking can cause settlement in unconsolidated, loosely packed alluvial deposits and beach sand, as well as poorly compacted artificial fills. Unconsolidated soils (i.e., highly disturbed landslide debris, colluvium and beach sand) present in the Project area are subject to seismically-induced ground settlement. Based on this data, settlement is not considered to be a significant impact on the proposed development.

Tsunamis. The hazard from tsunamis is considered to be low given the elevated nature of the proposed Project. Therefore, Project implementation is anticipated to result in a less than significant impact regarding the exposure of people/structures to potential substantial adverse effects associated with tsunamis.

Project compliance with the City Development Code and the California Building Code would be required to maintain potential impacts associated with liquefaction, ground lurching, lateral spreading and/or tsunamis at less than significant levels.

SOILS

Erosion

5.5-5 *Development of the proposed Project may result in substantial soil erosion. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

The existing artificial fill soils and marine terrace deposits blanketing much of the RHA and capping the bluff are highly erodible. Adverse surface drainage could promote accelerated soil erosion which could undermine proposed structures and lead to surficial slope failures on either manufactured or natural slopes. Therefore, impacts associated with soil erosion would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of mitigation requiring that additional design-level geotechnical studies be performed assessing potential soil related constraints and hazards such as sea cliff erosion. In addition, impacts associated with ground shaking would be reduced through compliance with the City Development Code and the California Building Code.

Expansive Soils

5.5-6 *The proposed Project may be located on expansive soils. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

The soils which occur on the Project site have been classified with a moderate to high potential for expansion. According to the geotechnical consultant for the Project "....many of the surface (soil) materials within the Project area are expansive..."[2]. If adequate measures are not taken to mitigate the impact of expansive soils during development, significant distress in the form of cracking and/or differential uplift of concrete footings and floor slabs may result when the soils become wet. Therefore, impacts associated with expansive soils would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of specified mitigation including placing a layer of relatively non-expansive soils beneath floor slabs and specialized building footings. In addition, impacts associated with expansive soils would be further reduced through compliance with the City Development Code and the California Building Code. Impacts would be further reduced with implementation of specified hydrological and drainage mitigation (refer to Section 5.6, *Hydrology and Drainage*).

UNSTABLE GEOLOGIC UNITS

Landslides

5.5-7 *Development of the proposed Project may be increase the number of people/structures exposed to potential significant effects associated with landslides. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

Based on information currently available, portions of the development adjacent to the existing landslides could be significantly impacted by renewed landslide movement resulting from strong ground motion from nearby earthquakes, potential groundwater buildup within the landslides, erosion at the toe of the bluff from storm generated waves, and ongoing natural erosion of the bluffs.

Impacts to the proposed RHA from existing landslides, sea cliff instability/erosion can be mitigated by the building setback line previously approved by the City of Rancho Verdes. A minimum building setback is based upon the local geologic conditions, rates of erosion of sea cliff retreat, and the economic life expectancy of the proposed

[2] Preliminary Geologic/Geotechnical Investigation for Long Point Destination Resort in the City of Ranchos Palos Verdes, California, Neblett & Associates, Inc. and LAW Crandall, September 14, 1999.

structures. For instance, it may be appropriate to place walls, fences, viewpoints and pathways in close proximity to the top of the cliffs for the purposes of walking and observing the sights. However, some of these features may need to be moved back if cliff areas recede or become subject to local instability. The same is true for other temporary or low-cost structures such as gazebos, patios, cantinas, or outdoor service areas. However, permanent structures and structures of all-hours occupancy would be required to be placed landward of reasonably derived building setbacks, such as the existing City-approved building setback line shown in Exhibit 5.5-1, *RHA Geologic Map*.

In order to mitigate the potential instability associated with the adverse (i.e., out-of-slope) bedding along the southern margin of the UPVA, a structural (building) setback line has been established by the geotechnical consultant (Neblett & Associates, 2000) (refer to Exhibit 5.5-2, *UPVA Geologic Map*).[3]

In order to evaluate the impact and provide mitigating measures due to the postulated landslide located in the southeast corner of the UPVA, a comprehensive subsurface investigation by the Project's geotechnical consultant would be required. Impacts would be reduced to a less than significant level with implementation of mitigation requiring compliance with the building setback line and a comprehensive subsurface investigation.

The potential for the building of groundwater beneath the Project area due to infiltration of landscape irrigation, storm water runoff, etc. appears to be unlikely given the pervasive fracturing of the bedrock beneath the area. However, the addition of storm water runoff, landscape irrigation for the golf course and resort areas, etc., could result in the localized building up of groundwater beneath the Project area. With the buildup of groundwater comes the increased potential of localized failures on the bluffs and/or reactivation of existing landslides due to the buildup of pore pressure in the rock and oil, and the possibility of groundwater acting to lubricate weak rock and soil layers. This impact would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of mitigation requiring groundwater monitoring wells and periodic visual reconnaissance.

Sea Cliff Retreat

5.5-8 *The proposed Project may be located on a geologic unit that is unstable or that may become unstable. Implementation of the specified mitigation and compliance with the City Development Code and the California Building Code would reduce potential impacts to less than significant levels.*

[3] The setback line as shown on Exhibit 5.5-2 was determined by calculating the location (of the line) at which a minimum factor of safety (e.g., F.S. = 1.50) was exceeded.

Active sea cliff/bluff retreat may pose a significant impact to any form or development within 50 to 75 feet of the current bluff top area. Reactivation or renewed landsliding on the sea cliff, and continual (albeit episodic) spalling of large blocks of bedrock along the sea cliffs, present hazards which cannot be practically mitigated, except with an adequate setback from the top of the actively eroding bluff. Moreover, numerous human contributions associated with anticipated construction activities typically leads to increased area erosion through construction of storm drains, fences and stairways, removal of plant/soil cover; oversteepening/ overloading of slopes; and both accidental and purposeful release of water onto and into the marine terrace sands and bedrock. Based on this data, impacts associated with sea cliff retreat would be considered significant unless mitigated. Impacts would be reduced to a less than significant level with implementation of mitigation requiring compliance with the building setback line and a comprehensive subsurface investigation at Project design-level pursuant to City review requirements.

CUMULATIVE IMPACTS

5.5-9 *The proposed Project, combined with future development, may result in increased short-term impacts such as erosion and sedimentation, and long-term seismic impacts within the area. Mitigation is incorporated on a project-by-project basis to reduce impacts to a less than significant level in areas deemed suitable for development.*

Soils and geological conditions in the Project vicinity may vary by location and their sustainability for development is not uniform throughout the City. The Project site exhibits various constraints to development that would be addressed at the geotechnical engineering level. Short-term cumulative impacts such as erosion and sedimentation would occur. The only cumulative long-term impact related to geology is the exposure of people and property in the vicinity of the Palos Verdes fault zone to the potential for seismically induced groundshaking. Implementation of the cumulative projects would incrementally increase the number of people and structures potentially subject to a seismic event. However, such exposure would be minimized through strict engineering guidelines for development at each respective site. The cumulative effects of increased seismic risk would be mitigated to a less than significant level.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statement provided in the impacts subsection.

SEISMICITY

Rupture of a Known Earthquake Fault

5.5-1 No mitigation measures are required.

Strong Seismic Ground Shaking

5.5-2a Prior to Grading Permit issuance, additional design-level geotechnical studies shall be performed to provide the adequate level of information to properly design and engineer the Project. The Applicant shall submit a Geotechnical Report for review and approval by the City's Geotechnical Consultant addressing the following:

- The Report shall primarily involve assessment of potential soil related constraints and hazards such as slope and sea cliff instability, sea cliff erosion, or related secondary seismic impacts, where determined to be appropriate by the City's Geotechnical Consultant;

- The Report shall include an evaluation of potentially expansive soils and recommend construction procedures and/or design criteria to minimize the effect of these soils on the proposed development; and

- The Report shall identify appropriate mitigation measures and be completed in the manner specified by the City.

5.5-2b Prior to Grading Permit issuance, the Applicant shall submit a report by an engineering geologist indicating the ground surface acceleration from earth movement for the subject property. All structures within this development shall be constructed in compliance with the g-factors as indicated by the geologist's report. Calculations for footings and structural members to withstand anticipated g-factors shall be submitted for review and approval by the City's Geotechnical Consultant.

Seismically Induced Landslides

5.5-3 Refer to Mitigation Measure 5.5-7.

Other Seismically Induced Hazards

Liquefaction

5.5-4a No mitigation measures are required.

Ground Lurching

5.5-4b No mitigation measures are required.

Lateral Spreading

5.5-4c No mitigation measures are required.

Settlement

5.5-4d No mitigation measures are required.

Tsunamis

5.5-4e No mitigation measures are required.

SOILS

Erosion

5.5-5 Refer to Mitigation Measure 5.5-2. Also, refers to Section 5.6, *Hydrology and Drainage*.

Expansive Soils

5.5-6 Prior to Building Permit issuance, a layer of relatively non-expansive soils shall be placed beneath floor slabs. For building footings, the use of properly reinforced concrete, deep spread-footings, drilled-and-belled caissons, or drilled cast-in-place piles shall be utilized. As part of the geotechnical report for the final design of the Project, specific recommendations shall be provided by the geotechnical consultant. In addition, refer to Mitigation Measure 5.5-2.

UNSTABLE GEOLOGIC UNITS

Landslides

5.5-7a Prior to Building Permit issuance, permanent structures and structures of all-hours occupancy shall be placed landward of the existing City-approved building setback line on the RHA and the structural (building) setback line established by Neblett & Associates (July, 2000) on the UPVA.

5.5-7b Prior to Grading Permit issuance on the UPVA, a comprehensive subsurface investigation shall be conducted by the Applicant's

geotechnical consultant regarding the postulated landslide located in the southeast corner of the UPVA. The investigation shall be conducted at Project design level, pursuant to City review requirements, and to the satisfaction of the City's Geotechnical Consultant. The study shall also include preparation of appropriate geologic cross sections to be used to perform slope/landslide stability analysis. Based on the results of the analysis, a mitigation concept/plan shall be implemented.

5.5-7c Prior to Grading Permit issuance, the Applicant shall submit a grading/drainage plan for review and approval by the Director of Public Works and City's Geotechnical Consultant. Said plan shall incorporate the following design objectives:

- All surface and subsurface runoff shall be directed to the nearest acceptable drainage facility via sump pumps if necessary, as determined by the Director of Public Works;

- On-site drainage and subdrain systems shall not drain over the bluff top. All roof gutter drains shall be required to connect into a tight line drainage pipe or concrete swales that drain to an acceptable drainage facility, as determined by the Director of Public Works;

- A soils/geotechnical report addressing the extent of uncompacted fill and remedial grading on site shall be prepared. The report, including the recommended bluff protection measures and vibration monitoring system, shall be submitted for review and approval by the Director of Public Works and City's Geotechnical Consultant. Heavy vibrating compaction equipment shall not be allowed near the bluff face.

- Incorporate all recommendations of the approved soils/ geotechnical report into the construction design of the Project.

5.5-7d Prior to Grading Permit issuance, the location of groundwater monitoring wells with a combination of shallow (30 feet), intermediate (80 feet), and deep (200 feet), shall be identified and installed by the Applicant's Geotechnical Consultant to the satisfaction of the City's Geotechnical Consultant. These wells shall be monitored at a minimum on a monthly basis for the first five years after issuance of the Certificate of Occupancy. A monthly report shall be prepared presenting the groundwater level monitoring data and submitted to the City for review.

In the event the groundwater level monitoring data indicates either a rise of more than ten feet within the regional water table, or the presence of groundwater if no groundwater was documented immediately following installation of the well(s), additional wells shall be installed in order to assess the nature and extent of the changes in the groundwater conditions beneath the area. If this condition were to occur, a well drilling plan shall be submitted to the City for review by the City's Geotechnical/Hydrogeologic Consultant.

5.5-7e A biannual reconnaissance of the UPVA and of the sea cliffs shall be performed for at least five years after issuance of the Certificate of Occupancy, as indicated by the Director of Public Works, to assess the presence of seeps or springs which may develop overtime. The result of the evaluation shall be included in the appropriate monthly groundwater monitoring report with recommendations to mitigate any adverse seepage noted during the reconnaissance.

Sea Cliff Retreat

5.5-8a Refer to Mitigation Measure 5.5-7a.

5.5-8b Prior to Demolition Permit, a Construction Monitoring Plan shall be prepared to protect coastal resources within and surrounding proposed development areas during construction phases of the Project. The Plan shall be submitted to the Director of Community Development for review and approval. The Plan shall also identify measures for the protection of resources and monitoring procedures to determine compliance. Such measures include, but are not limited to, Best Management Practices, erosion control measures and protective fencing.

Cumulative

5.5-9 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Geology and Soils have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.

5.6 HYDROLOGY AND DRAINAGE

This Section analyzes potential impacts on existing drainage patterns and flood control facilities in the Project area, as well as the potential effects on the groundwater quality and supply. Mitigation measures are recommended to reduce potential impacts to a less than significant level. Information in this Section is based on the *Hydrology and Water Quality Report* for the Project site prepared by RBF Consulting (January 2001) and *Runoff Management Plan/Water Quality Management Plan* prepared by PBS&J dated July, 2000. The Technical Reports are included in Appendix 15.6, *Hydrology and Water Quality Report*.

EXISTING CONDITIONS

BACKGROUND

For purposes of this hydrology analysis, the study area is defined as the watersheds in which the Long Point Resort Project is located. The watersheds are illustrated on the Hydrology Map following the main text.[1] The watersheds extend as far north as the Los Verdes Golf Course and surrounding residential areas. The study area also includes the properties south and west of the site such as the Interpretive Center.

HYDROLOGY

Hydrologic calculations to evaluate surface runoff associated with the 25- and 50-year hypothetical design storm frequencies from the tributary drainage areas were performed using the Los Angeles County Modified Rational Method (F0601) for watersheds greater than 50 acres. The Los Angeles County Rational Method was used to calculate the time of concentrations for subarea inputs to the F0601 program.

The watershed subarea boundaries were delineated utilizing topographic mapping and several site visits to determine the existing drainage patterns. Hydrologic parameters used in the analysis, such as rainfall and soil classification, are as presented in the *Los Angeles County Hydrology Manual*. The Hydrology Map displaying the subareas is available for review at the City Hall.

Existing Watershed Description

[1] The Hydrology Map is included in the Appendices to the Hydrology and Drainage Technical Appendix available at the City Hall.

The majority of the proposed acre site is vegetated with typical annual grasses and low brush. The historic drainage pattern for the areas follow the natural topography with the majority of the drainage flowing south towards the bluffs and down into the ocean. Those portions of the study area north of Point Vicente and a small portion of the City Hall area, drain westerly to the ocean. The Project watershed includes some off-site drainage which passes through the Project site. Also, some on-site drainage discharges onto other properties. A portion of the off-site drainage is conveyed from an open space area north of Hawthorne Boulevard through two 18" RCP and discharged on the eastern portion of the City Hall area. The majority of the off-site drainage crossing the Project area originates from the Los Verdes Golf Course and adjacent residential development. Although limited information is known about this portion of the drainage, it appears that two storm drains convey flow from the golf course underneath a residential development at this point, runoff from the residential area is combined with the golf course runoff. The flow then crosses Hawthorne Boulevard to open space east of the Western Regional Headquarters of Salvation Army. Once the flow exits the open space, it is likely that the flows are conveyed in Palos Verdes Drive South towards the property.

Existing drainage facilities consist of (1) four road culverts under Hawthorne Boulevard, (2) three road culverts under Palos Verdes Drive West, (3) six existing road culverts under Palos Verdes Drive South, and (4) a small earthen trapezoidal channel along the northern RHA boundary which drains into a 42" corrugated metal pipe (CMP) culvert to the western bluff. Many of the culverts have been identified by the City of Rancho Palos Verdes as having capacity deficiencies. Table 5.6-1, *Existing Drainage Facilities*, identifies the existing facility and its recommended upgrade as defined by the City. The facilities crossing each road are listed from the westernmost to the easternmost. All facilities described in Table No. 5.6-1 are illustrated on the Hydrology Map.

Rational Method

The Rational Method and Modified Rational Method are empirical computation procedures for developing a peak runoff rate (discharge) for storms of a specific recurrence interval. Rational Method equations are based on the assumption that the peak flowrate is directly proportional to the drainage area, rainfall intensity, and a loss coefficient which describes the effects of land use and soil type. The design discharges were computed by generating a hydrologic “link-node” model which divides the area into drainage subareas, each tributary to a concentration point or hydrologic “node” point determined by the existing terrain or street layout. The assumptions/guidelines applied for use of the Rational and Modified Rational Methods for existing conditions are included in Appendix 15.6, Hydrology and Water Quality Report.

TABLE 5.6-1
EXISTING DRAINAGE FACILITIES

Facility Size	Material	Required Size	Recommended
Facilities Crossing Hawthorne Boulevard			
24"	Reinforced Concrete Pipe (RCP)	60"	48" Parallel RCP
18"	RCP	NA	NA
Two 18"	RCP	2-30"	2-30" RCP
30"	Corrugated Metal Pipe (CMP)	NA	NA
Facilities Crossing Palos Verdes Drive West (from south to north)			
24"	RCP	60"	60" RCP
27"	RCP	NA	NA
18"	RCP	NA	NA
Facilities Crossing Palos Verdes Drive South			
24"	RCP	NA	NA
18"	RCP	54"	54" RCP
24"	RCP	54"	48" Parallel RCP
36"	RCP	48"	48" RCP
18"	RCP	36"	36" RCP
30"	RCP	4' x 4'	4' x 4' Dbl. Reinforced Concrete Box (RCB)
Northern Long Point Boundary			
~ 3' wide	Natural trapezoidal channel	NA	NA
42"	CMP	NA	NA

Existing Condition Surface Water Hydrology

The hydrologic characteristics which define the existing condition include the hydrologic soil type, proportion impervious, and watershed geometry. According to the Los Angeles County Hydrology Manual, the Project site contains soil type 002, which is the Altamont Clay Loam. The maximum average elevation differential of the watershed is approximately 531 feet (from elevation 546 at the open space area north of Hawthorne Boulevard to elevation 15 at the west bluffs of the RHA boundary) extending a maximum flow length of 3,240 feet or 0.6 miles. Most of the site was considered mountainous (slope > 10%). Due to limitations in the modeling software, the Project site was split into three areas, one on the west, one in the middle and one on the east. The western area was broken into 8 subareas. The middle area was broken into 15 subareas. The eastern area was broken into 10 subareas. The subareas are illustrated on the fold out map following the main report (at the City Hall).

The existing terrain and topographic conditions at the site were examined to determine the natural surface drainage patterns and to delineate the watershed sub-basin boundaries. Hydrologic properties such as slope, drainage patterns, soil type, or vegetation were characterized for each subarea. The watershed subareas are utilized to develop a “link-node” model which allows transformation of a physical process into a mathematical simulation or model. The subareas ranged from two to 49 acres in size. The characteristics used for each subarea are indicated in Table 5.6-2, *Natural Subwatershed Characteristics*.

To establish the baseline conditions for the site, hydrology for the 25-year frequency storm and the 50-year frequency storm were estimated. The flows for the 25-year storm are used to determine local storm drain sizing, while the 50-year analysis is used for larger master plan facilities and floodplain mapping. The predominant hydrologic soil classification of the natural watershed is Altamont Clay Loam which corresponds to a high runoff potential, with the soil having slow infiltration rates consistent with clay soils. Appendix B of Appendix 15.6, *Hydrology and Water Quality Report*, displays the results from the 25-year clearwater flows and the 50-year clearwater flows. Results of the existing condition or “pre-development” hydrologic analysis are summarized in Table 5.6-3, *Existing Conditions Peak Flowrates*.

For later comparison purposes, the results of the baseline hydrology for the 25-year storm can be summarized in cubic feet per second per acre (cfs/acre) for the western model and for a combination of the middle and eastern models. The western model yields a 25-year flowrate of 3.6 cfs/acre. The middle and eastern models yield a 25-year flowrate of 3.1 cfs/acre. A flow rate of 3 cfs/acre is generally

TABLE 5.6-2
NATURAL SUBWATERSHED CHARACTERISTICS

Designation	Area (Acres)	Length (Feet)	Elevation Change (Feet)	Proportion Impervious
West Area				
W1A	4	650	550-340	0
W2A	2	40	370-340	0.9
W3A	3	600	350-250	0
W4A	5	1300	370-227	0.1
W5B	14	1500	360-205	0.1
W6C	8	650	318-190	0.1
W7D	33	1800	373-177	0.2
W8E	10	1350	373-180	0.2
Middle Area				
M1A	12	1650	690-500	0.00
M2A	3	400	500-450	0.42
M3A	6	450	546-370	0.00
M4A	35	1370	370-170	0.20
M5B	7	1350	685-540	0.00
M6B	18	900	585-500	0.42
M7C	23	100	690-585	0.00
M8C	18	600	585-500	0.12
M9C	42	1400	500-220	0.22
M11B	3	1240	240-200	0.90
M12B	2	930	200-170	0.95
M14D	16	1400	405-175	0.00
M15A	4	900	170-15	0.20
M17E	42	1540	205-103	0.35
M18F	5	900	128-100	0.95
M20E	27	1050	103-9	0.45

TABLE 5.6-2
NATURAL SUBWATERSHED CHARACTERISTICS
(CONTINUED)

Designation	Area (Acres)	Length (Feet)	Elevation Change (Feet)	Proportion Impervious
East Area				
E1A	25	1800	930-745	0.42
E2B	29	1900	790-700	0.42
E4A	8	1300	530-245	0.00
E5C	5	2200	850-705	0.90
E6C	9	1050	745-600	0.00
E7C	5	600	600-530	0.42
E8D	4	1700	705-560	0.90
E10C	14	1600	560-245	0.00
E12A	49	2200	280-130	0.42
E13A	24	1800	205-20	0.20
E14E	5	900	125-87	0.42

TABLE 5.6-3
EXISTING CONDITIONS PEAK FLOWRATES

Subarea	Area (AC)	Tc Calc	Tc Est.	Subarea 25-Yr. Peak Q	Total 25-Yr. Peak Q	Subarea 50-Yr. Peak Q	Total 50-Yr. Peak Q
W1A	4	5	-	16	16	17	17
W2A	2	5	-	8	24	9	25
W3A	3	-	5	12	31	13	36
W4A	5	-	5	20	46	21	53
W5B	14	-	5	55	55	59	59
W6C	8	6	-	28	28	30	30
W7D	33	10	-	83	83	95	95
W8E	10	9	-	27	27	30	30
M1A	12	10	-	29	29	34	34
M2A	3	10	-	8	37	9	42
M3A	6	5	-	23	58	25	67
M4A	35	9	-	94	138	107	154
M5B	7	10	-	17	17	20	20
M6B	18	9	-	50	67	56	76
M7C	23	6	-	79	79	86	86
M8C	18	9	-	50	126	56	140
M9C	42	7	-	133	229	147	258
M10BC				229	279	258	324
M11B	3	6	-	11	286	12	332
M12B	2	5	-	9	284	9	329
M13AB				284	422	329	480
M14D	16	7	-	50	50	55	55
M15A	4	8	-	12	424	13	488
M16AD				48	465	53	538
M17E	42	7	-	135	135	149	149
M18F	5	6	-	19	19	20	20

TABLE 5.6-3
EXISTING CONDITIONS PEAK FLOWRATES
(CONTINUED)

Subarea	Area (AC)	Tc Calc	Tc Est.	Subarea 25-Yr. Peak Q	Total 25-Yr. Peak Q	Subarea 50-Yr. Peak Q	Total 50-Yr. Peak Q
M19EF				19	154	20	169
M20E	27	8	-	81	230	90	253
E1A	25	11	-	61	61	70	70
E2B	29	71	-	56	56	66	66
E3AB				56	117	66	136
E4A	8	7	-	25	140	27	161
E5C	5	5	-	21	21	23	23
E6C	9	6	-	31	47	34	52
E7C	5	13	-	11	58	13	65
E8D	4	5	-	17	17	18	18
E9CD				17	73	18	81
E10C	14	7	-	43	99	48	114
E11AC				99	238	114	274
E12A	49	6	-	176	361	191	424
E13A	24	11	-	57	416	66	484
E14E	5	6	-	19	19	20	20
E15AE				18	434	20	504

considered high. The high runoff results of the baseline models reflect several characteristics of the watershed, including the fact that a large portion of the off-site drainage is developed, the predominant soil type is a clay, and a significant portion of the UPVA is steep.

FLOODPLAIN MAPPING

The City of Rancho Palos Verdes is a participant in the national Flood Insurance Program (NFIP). Communities participating in the NFIP must adopt and enforce minimum floodplain management standards, including identification of flood hazards and flooding risks. Participation in the NFIP allows communities to purchase low cost insurance protection against losses from flooding. Due to its topographic nature, the area of the City of Rancho Palos Verdes was exempted from Flood Hazard Maps. This action was initiated by the County of Los Angeles and accomplished prior to 1984. There is no Flood Hazard Map for the City of Rancho Palos Verdes, therefore, no existing flood hazards within the Project site.

STORMWATER QUALITY

Stormwater quality is a significant concern in Southern California. This section discusses typical pollutants found in stormwater runoff and discusses what sort of contaminants maybe found in the existing stormwater runoff.

Nonpoint Source Pollutants

A net effect of urbanization can be to increase pollutant export over naturally occurring conditions. The impact of the higher export can be on the adjacent streams and also on the downstream receiving waters. However, an important consideration in evaluating stormwater quality from any project is to assess if it impairs the beneficial use to the receiving waters. Nonpoint source pollutants have been characterized by the following major categories in order to assist in determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various constituent elements, but there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Background of these standard water quality categories provide understanding of typical urbanization impacts.

Sediment - Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of runoff due to urbanization.

Nutrients - Nutrients are a major concern for surface water quality, especially phosphorous and nitrogen, can cause algal blooms and excessive vegetative growth. Of the two, phosphorus is usually the limiting nutrient that controls the growth of algae in lakes. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes large amounts of oxygen which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching ground water. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. As a general rule of thumb, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are 1) surface algal scums, 2) water discolorations, 3) odors, 4) toxic releases, and 5) overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

Trace Metals - Trace metals are primarily a concern because of their toxic effects on aquatic life, and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment and this effectively reduces the level which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out rapidly and accumulate in the soils. Also, urban runoff events typically occur over a shorter duration which reduces the amount of exposure which could be toxic to the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

Oxygen-Demanding Substances - Aquatic life is dependent on the dissolved oxygen in the water and when organic matter is consumed by microorganisms then dissolved oxygen is consumed in the process. A rainfall event can deposit large quantities of oxygen demanding substance in lakes and streams. The biochemical oxygen demand of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low DO results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measure of DO and indirect measures such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and total organic carbon (TOC).

Bacteria - Bacteria levels in undiluted urban runoff exceed public health standards for water contact recreation almost without exception. Studies have found that total coliform counts exceeded EPA water quality criteria at almost every site and almost

every time it rained. The coliform bacteria that are detected may not be a health risk in themselves, but are often associated with human pathogens.

Oil and Grease - Oil and grease contain a wide variety of hydrocarbons some of which could be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become absorbed to it. The major source of hydrocarbons in urban runoff is through leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbons export, although illegal disposal of waste oil into storm waters can be a local problem.

Other Toxic Chemicals - Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in stormwater. Priority pollutant scans have been conducted in previous studies of urban runoff which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in stormwater include: 1) phthalate (plasticizer compound), 2) phenols and creosols (wood preservatives), 3) pesticides and herbicides, 4) oils and greases, 5) metals.

Physical Characteristics of Surface Water Quality

Standard parameters which can assess the quality of stormwater provide a method of measuring impairment. Background of these typical characteristics assist in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface runoff. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, a high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as a fertilizer, is a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or ground water.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for stormwater comprise a long list and are classified in many ways. In many cases, the concentration of an urban pollutant, rather that the annual load of that pollutant, is needed to assess a water quality problem. Some of the physical, chemical or biological characteristics that evaluate the quality of the surface runoff are:

Dissolved Oxygen - Dissolved oxygen in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The dissolved oxygen concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. Dissolved oxygen is a transient property that can fluctuate rapidly in time and space. Dissolved oxygen represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process and the resulting changes in oxygen status respond slow also. The oxygen demand is an indication of the pollutant load and includes measurements of *biochemical oxygen demand or chemical oxygen demand.*

Biochemical Oxygen Demand (BOD) - The biochemical oxygen demand (BOD) is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples are taken from the field and incubated in the laboratory at 20^{o}C, after which the residual dissolved oxygen is measured. The BOD value commonly referenced is the standard 5-day values. These values are useful in assessing stream pollution loads and for comparison purposes.

Chemical Oxygen Demand - The chemical oxygen demand (COD) is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

Total Dissolved Solids (TDS) - TDS concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in the water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on total dissolved solids.

pH - The pH of water is the negative log, base 10, of the hydrogen ion (H^{+}) activity. A pH of 7 is neutral; a pH greater than 7 indicates alkaline water; a pH less than 7 represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by plants. The pH of water directly affects fish and other aquatic life and generally toxic limits are pH values less than 4.8 and greater than 9.2.

Alkalinity - Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is

dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 mg/l and ranges of alkalinity of 100-200mg/l seem to support well-diversified aquatic life.

Specific Conductance - The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long term monitoring of project waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2000 µohms/cm indicate a TDS level too high for most freshwater fish.[2]

Turbidity - The clarity of water is an important indicator of water quality that relates to the alkalinity of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Turbidity is caused by suspended clays and other organic particles. It can be used as an indicator of certain water quality constituents such as predicting the sediment concentrations.

Nitrogen (N) - Sources of nitrogen in stormwater are from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic Nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of **nitrate-nitrogen (N/N)** in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algal blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia); ammonia; nitrite plus nitrate; nitrite; and nitrogen in plants. The principal water quality criteria for nitrogen focus on nitrate and ammonia.

Phosphorus (P) - Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban stormwater discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. Important methods of measurement include detecting orthophosphate and total phosphorus.

[2] As the proposed Project would discharge to the ocean, TDS would not be a concern.

Existing Stormwater Quality

The Project site lacks any measured data on stormwater runoff quality. In the absence of site specific data, expected stormwater quality can be qualitatively discussed by relating typical pollutants to specific land uses.

Currently, the majority of the Resort Hotel Area (RHA) contains few structures and is only used for banquets, property offices, and occasional movie shoots. Most of the infrastructure associated with the old Marineland site was demolished in 1988. Remaining improvements include parking lots and roads, the Galley West Restaurant and Bar, Pereira Motel, Lookout Point Bar, and the currently operating Catalina Room. The majority of the site drains overland towards the cliffs and down to the ocean. The only expected existing pollutants in the existing condition stormwater runoff from the RHA would be suspended solids and minor amounts of oil and grease from automobile use. In several areas along the ocean bluff, on the RHA erosion has resulted in incised channels, significant bluff erosion and increased suspended soils in the stormwater runoff entering the Pacific Ocean.

It is likely that off-site runoff which crosses the RHA would contain pollutants from both residential development and golf course maintenance. Pollutants associated with residential development include trash, nutrients, bacteria, oil and grease, and household hazardous wastes. Maintenance of the Los Verdes Golf Course likely introduces nitrogen and phosphorus into the runoff.

The majority of the UPVA primarily consists of permeable surfaces including undeveloped lands and agricultural land use. A small portion of the site is used for the City Hall which contains a high concentration of impermeable surfaces. Expected existing pollutants in the stormwater runoff from the UPVA are suspended solids, nitrogen, and phosphorus commonly associated agricultural practices and oil and grease associated with the City Hall parking lots.

Currently, the site does not contain any structural Best Management Practices (BMP) which would potentially decrease the amount of pollutants in stormwater runoff. It is likely that a portion of potential pollutants are removed through the use of natural conveyance rather than a storm drain system. Conveying flows overland through vegetation affords some infiltration and biofiltration of runoff and thus, potential pollutant removal. A draw back to conveying flows overland is that it tends to create erosion problems and thus increase suspended solids in the runoff. Problems associated with erosion are evident on the RHA at the existing over-the-cliff discharge points to the Ocean. Therefore, runoff discharging over the cliffs is expected to have a significant amount of suspended solids, which as discussed in the *Non-Point Source Pollutants* section, has the capability of increasing the transport of other potential pollutants.

IMPACTS

Significance Criteria

Appendix G of the California Environmental Quality Act (CEQA) Guidelines contains the Initial Study Environmental Checklist form used during preparation of the Project Initial Study, which is contained in Appendix 15.1, *IS/NOP/Correspondence*, of this EIR. The Initial Study includes questions relating to hydrology, drainage and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- Violation of any water quality standards or waste discharge requirements (refer to Impact Statements 5.6-2 and 5.6-3);

- Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)(refer to Section 10.0*, Effects Found Not to be Significant*);

- Substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (refer to Impact Statement 5.6-1);

- Substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site (refer to Impact Statement 5.6-1);

- Creation or contribution of runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provision of substantial additional sources of polluted runoff (refer to Impact Statement 5.6-1);

- Otherwise substantial degradation of water quality (refer to Impact Statements 5.6-2 and 5.6-3);

- Housing placement within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (refer to Section 10.0*, Effects Found Not to be Significant*);

- Placement within a 100-year flood hazard area structures which would impede or redirect flood flows (refer to Section 10.0*, Effects Found Not to be Significant*); and/or

- Exposure of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (refer to Section 10.0*, Effects Found Not to be Significant*).

Potential impacts associated with drainage and water quality are categorized below according to topic. Mitigation measures at the end of this Section directly correspond to the impact statements below.

The following discussion is an evaluation of the proposed Project which is then compared to the existing conditions analysis to determine impacts associated with the development of the property. Proposed conditions investigated include: land use, proposed storm drain configuration, hydrology, floodplain mapping, and surface water quality.

DRAINAGE AND RUNOFF

5.6-1 *The proposed Project may significantly alter drainage patterns which could result in increased erosion potential and runoff. Impacts would be considered as less than significant with implementation of the proposed Project design features (i.e., the provision of adequate outlet structures, storm drains to contain flows and proper bluff drainage).*

Proposed Project hydrology was completed by RBF Consulting. Hydrologic calculations to evaluate surface runoff associated with the 25 and 50-year hypothetical design storm frequencies from the tributary drainage areas were performed using the Los Angeles County Modified Rational Method (F0601) for watersheds greater than 50 acres. The Los Angeles County Rational Method was used to calculate the time of concentrations for subarea inputs to the F0601 Program.

The watershed subarea boundaries were delineated utilizing topographic mapping and current proposed Project maps. Hydrologic parameters used in the analysis, such as rainfall and soil classification, are as presented in the *Los Angeles County Hydrology Manual*. The Proposed Conditions Hydrology Map (Exhibit 5.6-1, *Proposed Conditions Hydrology Map No. 1*, and Exhibit 5.6-2, *Proposed Conditions Hydrology Map No. 2*) illustrates the subareas.

Proposed Watershed Description

The Project contains a proposed storm drain system that utilizes both the existing storm drain system and new proposed storm drains. Exhibit 5.6-3, *Conceptual Drainage Plan*, shows the conceptual storm drain layout as described below. The new system is divided into 3 areas, the western, middle, and eastern area. The western area is tributary to the existing small diameter culverts under Palos Verdes Drive South. The middle area corresponds to areas tributary to Discharge Point 2. The eastern model conveys flows to Discharge Point 1.

The storm drain system that is remaining in place is located on the UPVA and consists of small diameter (18" to 36" Reinforced Concrete Pipe (RCP)) culverts which carry flow from the UPVA under Palos Verdes Drive towards the Pacific Ocean. One existing larger diameter pipe (54"RCP) adjacent to the east property line conveys off-site flows under Palos Verdes Drive South and into the adjacent housing tract. Eventually, the runoff is conveyed into a new on-site (RHA) storm drain and discharged to the ocean at Discharge Point 1.

The new storm drain improvements would be located on the RHA. Two separate systems would operate on-site. The first is tributary to Discharge Point 1. The first system would convey flows from portions of the golf course on the UPVA, on-site golf course, and off-site areas to the 54" RCP. The pipe sizes in the system would range from 18" to 72" and would include significant lengths of swales rather than pipe. The discharge at Point 1 would be carried in a 72" pipe to the base of the bluffs where a rock rip-rap energy dissipator would reduce velocities and mitigate shoreline erosion and scour.

Exhibit 5.6-1, Proposed Conditions Hydrology Map No. 1

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RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Proposed Conditions Hydrology Map No. 1

Exhibit 5.6-1

0 200 400

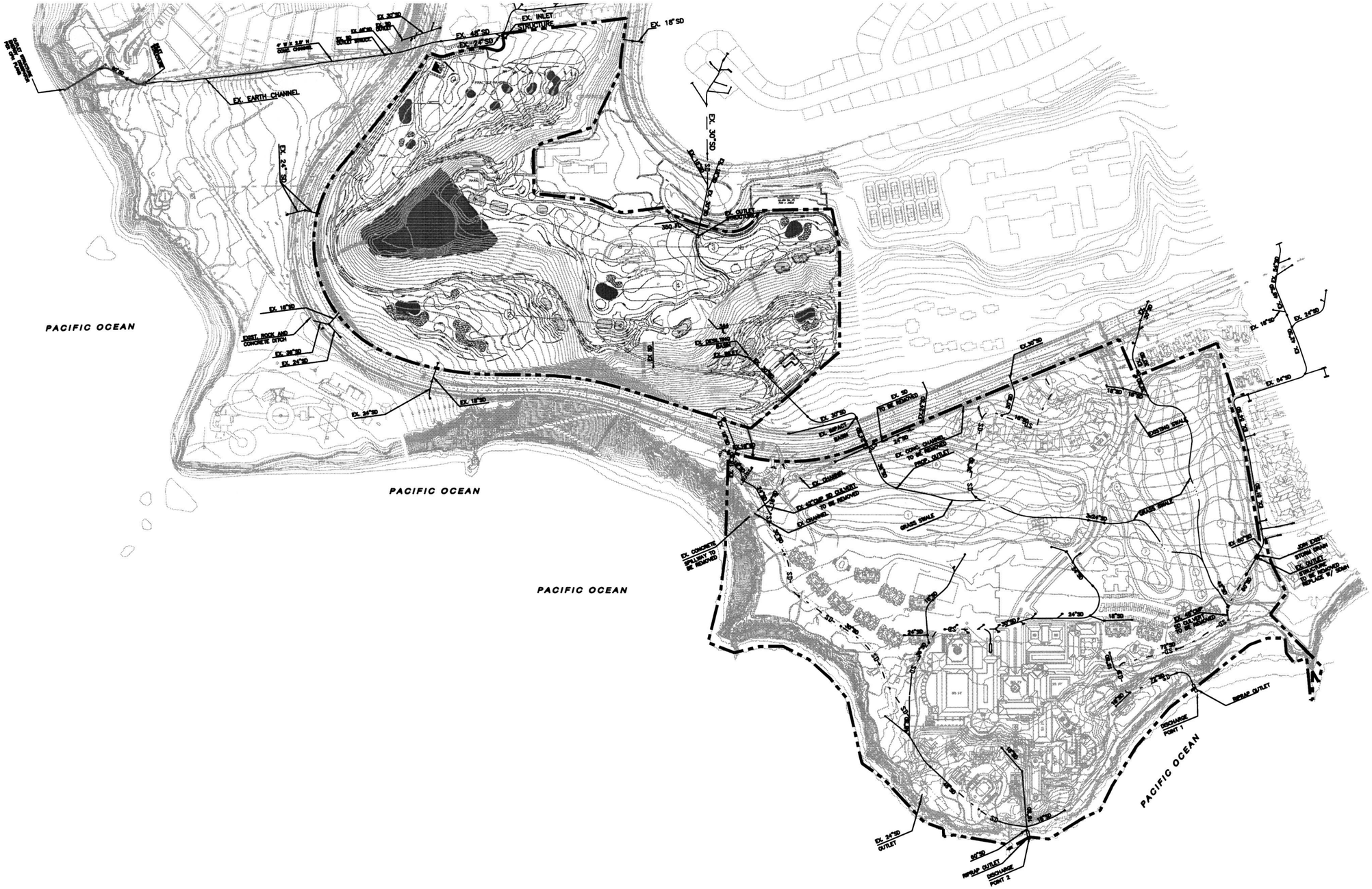
RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Proposed Conditions Hydrology Map No. 2

Exhibit 5.6-2


PACIFIC OCEAN
EX. EARTH CHANNEL
EX. INLET STRUCTURE
EX. 18"SD
EX. 30"SD
EX. 24"SD
EX. 48"SD
EX. 18"SD
EX. 24"SD
EX. 30"SD
EX. 24"SD
EX. 18"SD
EX. 36"SD
EX. 24"SD
EX. 18"SD
EX. 24"SD
EX. 30

The areas tributary to Discharge Point 2 are proposed to convey flows from areas of the RHA that contain high percentage imperviousness, such as parking lots, the main RHA, the resort villas, and a small portion of the golf course. Pipe sizes for this system range from 18" to 60". The discharge at Point 2 would be carried in a 60" pipe to the base of the bluffs, where a rock rip-rap energy dissipator would reduce velocities and mitigate shoreline erosion and scour.

Rational Method

As previously noted, the Rational Method and Modified Rational Method are empirical computation procedures for developing a peak runoff rate (discharge) for storms of a specific recurrence interval. The assumptions/guidelines applied for use of the Rational and Modified Rational Methods for proposed conditions are included in Appendix 15.6, *Hydrology and Water Quality Report*.

Proposed Condition Hydrology

The existing terrain and topographic conditions at the site were examined to determine the natural surface drainage patterns and to delineate the watershed sub-basin boundaries. Due to the drainage patterns, the watershed was divided into 3 models (West, Middle and East) as described previously. Hydrologic properties such as slope, drainage patterns, soil type, or vegetation were characterized for each subarea. The watershed subareas are utilized to develop a “link-node” model which allows transformation of a physical process into a mathematical simulation or model. The subareas ranged from one to 49 acres in size.

Appendix C, of Appendix 15.6, *Hydrology and Water Quality Report*, displays the results from the 25-year clearwater flows and the 50-year clearwater flows. Results of the proposed condition or “post-development” hydrologic analysis are summarized in Table 5.6-4, *Proposed Conditions Peak Flowrates*.

Table 5.6-5, *Proposed Hydrology at Outlet Locations*, summarizes the proposed hydrology by discharge location. The discharge locations are illustrated on the Hydrology Maps, Exhibits 5.6-1 and 5.6-2.

Hydrology Impact Analysis

As discussed previously, the proposed storm drain configuration on-site would redirect flows to two main discharge locations on the RHA, Discharge Point 1 and Discharge Point 2. Typically, redirection of flows in the proposed conditions can create significant downstream impacts. However, since the watersheds drain directly to the ocean and adequate outlet structures at the base of the cliffs have

TABLE 5.6-4
PROPOSED CONDITIONS PEAK FLOWRATES

Subarea	Area (AC)	Tc Calc	Subarea 25-Yr. Peak Q	Total 25-Yr. Peak Q	Subarea 50-Yr. Peak Q	Total 50-Yr. Peak Q
W1A	4	5	16	16	17	17
W2A	2	5	8	24	9	25
W3A	3	5	12	30	13	35
W4B	17	6	59	59	64	64
W5C	8	6	28	28	30	30
W6D	4	5	17	17	18	18
W7D	2	5	8	25	9	27
W8D	18	6	63	84	68	90
M1A	8	5	31	31	34	34
M2A	2	5	8	38	9	42
M3A	1	5	4	42	5	46
M4B	1	5	4	4	4	4
M5AB			4	45	4	50
M6A	1	5	4	48	4	54
M7A	6	5	24	63	26	74
M8A	4	5	17	76	18	88
M9C	7	10	17	17	20	20
M10C	1	5	4	21	5	24
M11C	6	5	26	41	27	48
M12D	2	5	9	9	9	9
M13CD			8	49	9	56
M14AC			48	125	56	144
M15A	2	5	8	128	8	147
M16E	2	5	8	8	9	9
M17AE	2		8	135	9	155
M18F	8	5	34	34	36	36

TABLE 5.6-4
PROPOSED CONDITIONS PEAK FLOWRATES
(CONTINUED)

Subarea	Area (AC)	Tc Calc	Subarea 25-Yr. Peak Q	Total 25-Yr. Peak Q	Subarea 50-Yr. Peak Q	Total 50-Yr. Peak Q
M19F	3	5	12	44	13	48
M20AF			44	174	48	201
E1A	25	11	61	61	70	70
E2B	29	17	56	56	66	66
E3AB			56	117	66	136
E4A	8	7	25	140	27	161
E5C	5	5	21	21	23	23
E6C	9	6	31	47	34	52
E7C	5	13	11	58	13	65
E8D	4	5	17	17	18	18
E9CD			17	73	18	81
E10C	14	7	43	99	48	114
E11AC			99	238	114	274
E12A	49	6	176	361	191	424
E13B	23	6	79	79	86	86
E14B	18	9	50	126	56	140
E15B	20	7	62	163	68	188
E16B	3	5	12	169	13	193
E17B	11	8	32	189	35	218
E18C	12	10	29	29	34	34
E19C	3	10	8	37	9	42
E20C	10	5	39	73	42	83
E21C	5	5	20	75	21	89
E22C	10	5	39	100	42	122
E23C	2	5	8	106	8	128
E24C	13	7	40	146	44	169

TABLE 5.6-4
PROPOSED CONDITIONS PEAK FLOWRATES
(CONTINUED)

Subarea	Area (AC)	Tc Calc	Subarea 25-Yr. Peak Q	Total 25-Yr. Peak Q	Subarea 50-Yr. Peak Q	Total 50-Yr. Peak Q
E25C	4	5	16	154	17	180
E26D	7	10	17	17	20	20
E27D	18	9	67	67	56	76
E28D	30	7	50	144	105	162
E29D	6	5	95	159	26	182
E30CD			24	311	180	360
E31C	9	13	157	313	22	364
E32BC			19	499	364	582
E33B	1	5	313	499	4	581
E34B	1	5	4	500	4	582
E35AB			4	835	582	975
E36A	2	5	500	835	9	970
E37A	2	5	8	831	8	971
E38E	2	5	8	8	9	9
E39AE			8	834	9	975

TABLE 5.6-5
PROPOSED HYDROLOGY AT OUTLET LOCATIONS

Discharge Point	Description	Hydrologic Model and Subarea	25-Year Flowrate
Ex. 24" Storm Drain	Northern most storm drain adjacent to church	West - Subarea W3A	30 cfs
Ex. 24" Storm Drain	Culvert under Palos Verdes Dr So.	West - Subarea W4B	59 cfs
Ex. 18" Storm Drain	Culvert under Palos Verdes Dr So.	West- Subarea W5C	28 cfs
Ex. 18" Storm Drain	Culvert under Palos Verdes Dr So.	West-Subarea W8D	84 cfs
Proposed 72" RCP	New Discharge Point 1 at bluff on RHA	East-Subarea E39AE	834 cfs
Proposed 60" RCP	New Discharge Point 2 at bluff on RHA	Middle-Subarea M20AF	174 cfs

been included in the proposed plan, increases in flows would not be a significant impact. It should be noted, however, that the City is considering requiring the Applicant to provide slant drain outlets rather than traditional outlets. This determination would be made during the design phase of the Project. Mitigation has been specified requiring that the City make this determination.

Due to redirection of flows, it is not reasonable to directly compare pre- and post-development flowrates at specific points. Therefore, in order to accurately describe the effects of the proposed development, it is reasonable to compare the pre-and the post-development hydrology on a flowrate per area (cfs/acre) increase. For comparison purposes, the analysis compares the West models (UPVA/City Hall/Golf Course) as one area, and the Middle and East Models as another comparison. The results are shown in Table 5.6-6, *Hydrology Comparison (25-Year Storm)*. As expected, there would not be a significant increase in flow per acre for the western model, where most of the land uses remained permeable. There would be a greater increase in the middle and eastern models which would likely be due to increases in impermeable surfaces and the use of storm drains to contain flow. Neither of these increases is considered significant because the flows are contained in storm drains with proper bluff drainage to minimize bluff erosion (the middle and east models) and the increases are not expected to cause or increase flooding on adjacent property.

TABLE 5.6-6
HYDROLOGY COMPARISON (25-YEAR STORM)

Area	Existing Condition (cfs/acre)	Proposed Condition (cfs/acre)	Difference (cfs/acre)
West (Majority of Upper Point Vicente Area)	3.6	3.8	+0.2
Middle & East (Majority of Hotel Resort Area	3.1	3.5	+0.4

In summary, the proposed Project would significantly alter the drainage patterns on the RHA which could be considered potentially significant to erosion potential. However, the Project proposes design features (i.e., proper bluff drainage and impact basin installation which would likely improve bluff stability and curb bluff erosion). The proposed Project would also slightly increase the amount of runoff leaving the site. However, because the downstream receiving water is the ocean, and because adequate outlet structures have been proposed, the increase in runoff is negligible and would not result in increased downstream flooding on- or off-site.

WATER QUALITY - CONSTRUCTION

5.6-2 *Grading, excavation and construction activities associated with the proposed Project may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particles and pollutants in drainage areas. Impacts would be reduced to a less than significant level with incorporation of the specified mitigation measures.*

Construction controls are separated from the rest of water quality management because the measures are temporary and specific to the type of construction. Construction of the Long Point Resort Project would typically produce potential pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes, fuel, and lubricants.

As part of its compliance with the NPDES requirements, a Notice of Intent (NOI) would be prepared and submitted to the Los Angeles Regional Water Quality Control Board providing notification and intent to comply with the State of California general permit. Prior to construction, completion of a Storm Water Pollution Prevention Plan (SWPPP) would be required for the construction activities on-site. A copy of the SWPPP would be required to be available and implemented at the construction site at all times. The SWPPP would outline the source control and/or treatment control BMPs that would avoid or mitigate runoff pollutants at the construction site to the “maximum extent practicable.”

Implementation of the specified mitigation (i.e., compliance with the NPDES requirements) would reduce construction-related impacts to water quality to a less than significant level.

WATER QUALITY - LONG TERM

5.6-3 *Development of the Long Point Resort may result in a long-term impacts to the quality of storm water and urban runoff, subsequently impacting water quality. Impacts would be reduced to less than significant levels with incorporation of the specified mitigation measures and State, County, and City Development Code requirements.*

Stormwater Quality

Due to the increasing stormwater quality concerns, the Long Point Resort Project has taken a proactive approach to stormwater quality management. The Project includes as a Project Design Feature stormwater mitigation in the form of a Water Quality Management Plan (WQMP), which includes Best Management Practices (BMPs), Structural Measures, and Adaptive Management. The WQMP has been developed for the RHA under the guidelines in *Development Planning for Storm Water Management- A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* prepared by Los Angeles County Department of Public Works dated May 2000. The SUSMP is a new National Pollutant Discharge Elimination System (NPDES) Permit requirement for Los Angeles County. This section discusses the proposed stormwater quality controls, assess the effectiveness of the Long Point Resort WQMP in conforming to the requirements of the SUSMP, and evaluates the impacts of the development.

Proposed Stormwater Quality Controls

The proposed WQMP for the Long Point Resort Project utilizes state-of-the-art pollution control measures to ensure that detrimental effects would not occur to the quality of the runoff or the beneficial uses of the runoff and receiving waters. The proposed Plan is described in the *Runoff Management Plan/Water Quality Management Plan - Long Point Resort and Golf Course* prepared by PBS&J (July 14, 2000). Schematics of the proposed treatment facilities associated with the development are illustrated in Exhibit 5.6-4, *Discharge Pt. 1 Conceptual Drainage System Schematic*, and Exhibit 5.6-5, *Discharge Pt. 2 Conceptual Drainage System Schematic*.

Exhibit 5.6-4, Discharge Pt. 1 Conceptual Drainage System Schematic

Non-Structural Control. The Long Point Resort WQMP contains several non-structural BMP controls including: minimization of impermeable surfaces, grounds maintenance practices, golf course management, and Standard BMPs as described below:

- *Minimization of Impermeable Surfaces:* The proposed development maximizes permeable surfaces, such as landscaped and natural areas. The Project also minimizes impermeable surfaces such as paved areas, rooftops, and paths. In fact a large portion of the Project would be permeable due to its development as a golf course.

- *Grounds Maintenance:* Maintenance of the proposed development would limit trash and debris that could be picked up by runoff and stormwater. The internal roads and parking lots on-site would be cleaned weekly by street sweepers.

- *Golf Course Management:* The proposed golf course WQMP consists of five areas: computerized irrigation, fertilizer control, integrated pest management, storage design, and disposal program. Computerized irrigation controls for the golf course would be connected to a weather monitoring system. The system would calculate evapotransporation and would adjust the amount of irrigation required based on the turfs needs. The method of irrigation control reduces the amount of water used for irrigation and minimizes the potential for nuisance runoff.

  Fertilizers would only be applied during the turf growth periods. The type of fertilizers to be used on-site would have a low leaching potential and would be applied at the lowest acceptable rate. Fertilizer application and irrigation would be coordinated to minimize runoff potential and to avoid over fertilization.

  Integrated pest management is an evolving method for managing and monitoring of turf and pests. Currently, the most applicable elements of the integrated pest management program are described herein. Potential pest populations or infestations would be monitored and, if new occurrences are identified, they would be treated immediately. A phased implementation strategy of eradicating pests would be employed. Such a strategy would begin with the application of the least environmentally damaging pest control and then increasing intensity of methods until the correct measure is used. Spot treatment of pesticides would be utilized where applicable to avoid application of large amounts. Pest tolerant grasses would also be used on-site.

  The storage of environmentally hazardous materials likely to be found on-site, including pesticides, gas, oil, and paint, would be in compliance with the SUSMP requirements. These requirements state

that: (1) materials with the potential to contaminate storm water must be placed in and enclosure such as a cabinet, shed or similar structure that prevents contact with runoff or spillage to the stormwater conveyance system or protected by secondary containment structures such as berms, dikes, or curbs; (2) the storage area must be paved and sufficiently impervious to contain leaks and spills; and (3) The storage area must have a roof or awning to minimize collection of stormwater within the secondary containment area.

A complete routine disposal program would include the collection of grass clippings, which would be dried and then composted or spread along the golf course rough or wooded areas. Solvents, degreasers, pesticides and the containers would be properly marked disposed of through a service that would properly recycle or dispose of the materials.

- *Standard Best Management Practices (BMPs):* Numerous common sources control BMPs identified in the California "Municipal" Handbook would be implemented as part of the WQMP. These are listed briefly below:

  - *SCO Public Education/Participation* - This BMP includes disseminating informational materials for employees of the resort and possibly posting signs informing guests of the natural resources downstream and the possibility of negative impacts associated with the use of the land.

  - *SC10 Housekeeping Practices* - This entails practices such as cleaning up spills, proper disposal of certain substances and wise application of chemicals. This would be particularly important within the resort complex and the golf course maintenance areas.

  - *SC20 Material Storage Control* - The would be a very important element in the golf course maintenance areas, where storage of fertilizers, pesticides and herbicides, as well as fuel, lubricants and batteries, need to be under cover and inaccessible to storm runoff. Spill containment would also be a significant factor.

  - *SC30 Storm Drain System Signs* - Storm drains would be marked with "Drains to Ocean" signs.

  - *SC32 Used Oil Recycling* - Will apply to maintenance and security vehicles.

- *SC40 Vehicle Leak and Spill Control* - Would include golf carts and golf course maintenance equipment.

- *SC70 Street Cleaning* - Would include resort and golf course parking areas, streets, and access roads.

- *SC71 Catch Basin Cleaning* - This would include maintenance of the inlet filtration devices and the catch basins.

- *SC72 Vegetation Controls* - Although this primarily refers to maintenance practice on natural areas, the general principal would also be applied to large golf course areas within the resort complex, in order to avoid practices that would contribute to pollution and to maximize the beneficial uses of the golf course swales and biofliters.

- *SC73 Storm Drain Flushing* - Although general storm drain gradients are sufficiently steep for self-cleansing, visual inspection may reveal a buildup of sediment and other pollutants at the energy dissipators at the ocean outlets, in which case flushing may be advisable.

Structural Controls. The SUSMP requires that the first flush (the runoff from 0.75" storm event) receive treatment prior to entering a storm drain system. The structural WQMP's BMP controls discussed in the following sections were designed to meet the first flush treatment requirements of the SUSMP.

- *Use of Swales and Natural Drainages:* Swales and natural drainages would be used throughout the Project to promote biofiltration of runoff on the site. On the RHA, two swales would be used to transport and collect the majority of the water that would pass through the site and would originate on-site. These swales would also treat water that enters the Project site from the north and northeast. The locations of the swales are indicated on Exhibit 5.6-3, *Conceptual Drainage Plan*.

  Runoff that would enter the site from the north along Palos Verdes Drive South via the 30-inch culvert and two 24-inch culverts would be directed into a swale that runs in a southeast direction between the 1st and 6th golf holes in the middle of the site. The resort hotel villas and the two cul-de-sacs that access the villas that are proposed along Palos Verdes Drive South in the middle of the site would also drain to the swale. The swale would cross the 7th hole and then intersect another swale that runs in a north-south direction between the 8th and 9th holes. This second swale would convey the runoff that would enter the site at the northeastern corner from a 30-inch culvert. After the confluence of these two swales, the runoff would continue through a

swale towards the southern edge of the property at which point it would be directed to a 60-inch pipe and conveyed to Discharge Point 1. All of the RHA adjacent to these swales and upland of the swales would drain through the swales prior to discharge.

On the Upper Point Vicente Area (UPVA) in the portion which drains to Discharge Point 2, all of the drainage would be conveyed overland either across the golf course or through swales in paths that mimic existing drainage patterns of within existing natural drainages. The off-site runoff that is currently discharged to the site from a 30-inch pipe at the northeastern portion of the site would continue to flow through a swale on the site and re-enter a pipe before it leaves the site. This runoff would be conveyed to the RHA where it would enter the swale between the 1st and 6th holes and eventually discharge to Point 1.

Golf course areas on the UPVA which are not tributary to the main swales on the RHA (Hole 2, a portion of Hole 3, and the practice facility) would also contain filtration swales designed to meet water quality criteria and convey flows from the golf course to the culverts under Palos Verdes Drive South.

- *Inlet Filtration:* Drop-in filtration devices would be used at all curb inlets within the internal parking lots. Existing examples of these filtration devices include the Drain Pac Storm Drain Inserts and Fossil Filters. At the time of implementation, one of these filtration devices or a device of comparable purpose would be chosen based on feasibility, removal efficiency and availability. These types of devices are extremely efficient at removing oil and grease, debris, and suspended solids from treated waters. Some of these devices have also exhibited high efficiencies at removing heavy metals and other pollutants.

  To assure the efficiency of these filtration devices, they would be monitored before and after every storm. The use of street sweeps on the parking lots and streets would help reduce the amounts of sediment and debris that flow through the devices. This would extend the effectiveness of the devices during a storm and would lower the frequency of required maintenance. Even so, the devices would be checked and cleaned, if necessary, once a month during the rainy season, following any precipitation and at the end of the dry season prior to the first precipitation event of the rainy season.

  These units could potentially be used in other areas besides the parking lot inlets. The potential locations are at the downstream end

of the three tributary pipes that feed the discharge point. Siting these units a downstream point would allow for the treatment of more runoff.

- *Dry Weather Diversion and Treatment:* During the dry season, April 15 through October 15, nuisance flows discharging to Discharge Point II are proposed to be diverted to the nearest sewage line and sent to the local sewage plant for treatment. This discharge point receives the majority of the runoff that originates from the impermeable surfaces of the RHA. Implementation of this diversion is dependant on the acceptance of the City Sanitation Department and the excess capacity of the existing facilities.

- *Water Quality Monitoring and Adaptive Management:* A comprehensive monitoring program is perhaps the most important component of an effective water quality management plan. The monitoring would take place at several locations along internal drainage features and at discharge points from the proposed development. The monitoring would ensure that the treatment components of the plan remain effective in removing pollutants. If it is determined that some measures are not sufficient, then new elements would be added to the plan.

Stormwater Quality Impact Analysis

Development of the RHA and the UPVA would result in new land uses and increased activity as discussed in Section 3.0, *Project Description*. Changes associated with the proposed Long Point Resort Project have the potential to affect water quality. Water quality issues of particular concern are stormwater and nuisance water runoff associated with the proposed golf course and increased vehicular traffic. Other water quality issues associated with the proposed development include reduction in percentage of permeable surfaces and nuisance flow *not* associated with the golf course.

Golf courses are associated with several pollutants including fertilizers, which contain the nutrients of both Phosphorous and Nitrogen and pesticides. When applied in excess and stored incorrectly, these pollutants can contaminate the stormwater and nuisance water runoff. The Project includes a 9-hole golf course situated on both the RHA and the UPVA, therefore, fertilizers and pesticides would be expected to increase on the Project site.

Since the RHA and the UPVA do not currently support much public activity, the proposed Project is expected to increase vehicular activity on-site. The resort and golf course are expected to increase car travel to the site. Other vehicular activity on-site would include maintenance vehicles, security vehicles and delivery vehicles. This increase in vehicular traffic is of particular concern because automobiles are associated with several urban pollutants, most notably being oil and grease and

heavy metals. In fact, in most non-industrial areas, automobiles are considered the primary contributors to pollutants in stormwater runoff.

Typically, development projects reduce the amount of permeable surfaces on-site. A reduction in permeable surfaces is considered to be a water quality impact because permeable surfaces allow for rain and runoff to infiltrate into the ground. Infiltration both reduces the amount of flow that is capable of washing off additional pollutants and filters water removing potential pollutants. The existing land uses on-site already contain large amounts of impermeable surfaces such as parking lots, buildings, and roads, most of which were associated with the old Marineland site. The proposed development would not significantly increase the amount if impermeable surfaces on-site. Therefore, potential impacts to water quality due to an increase in impervious surface is expected to be less than significant.

Nuisance flow, which is defined as runoff that occurs during periods that are not usually associated with rainfall, are most commonly produced by from landscaping irrigation, leaking pipes, and water used to wash of surfaces tributary to the street and storm drain system. Since nuisance flows usually originate in the street, they commonly contain many common pollutants found in streets such as oil and grease and sediment. Due to the increase in landscaped area associated with the resort area and the golf course it is expected that there would be a significant increase in the amount of nuisance flow from the Project site. However, these nuisance flows are not expected to contain detectable amounts of pollutants unless they travel across impermeable surfaces. These areas include roads and parking lots in the proposed Project. With implementation of the proposed WQMP and the specified mitigation measures, impacts in this regard would be reduced to a less than significant level.

Evaluation of the Proposed Water Quality Management Plan. The proposed Water Quality Management Plan (July 14th, 2000) has been evaluated to determine if the plan meets Los Angeles County's SUSMP requirements. The key to the evaluation of the plan is the requirement to "reduce the discharge of pollutants form storm water conveyance systems to the maximum extent practicable." For the purposes of this evaluation, "maximum extent practicable" is defined as fulfilling the thirteen requirements listed in Section 1.2 of Appendix 15.6, *Hydrology and Water Quality Report*.

The proposed Long Point Resort WQMP would meet several of the requirements listed above. However, some of the requirements were not fully addressed in the Plan and therefore require additional mitigation in order to ensure compliance with SUSMP requirements and that potential water quality impacts are reduced to less than significant levels. Table 5.6-7, *Evaluation of the Water Quality Management Plan*, explains how specific elements of the proposed WQMP meet the thirteen SUSMP requirements listed above.

TABLE 5.6-7

EVALUATION OF THE WATER QUALITY MANAGEMENT PLAN

SUSMP Requirement Number	Water Quality Management Plan Component	Level of Satisfaction of SUSMP Requirements	Additional Mitigation Required? (Y/N)
1	Storm Drain Design, Minimization of Impermeable Surfaces	Fully Satisfied	N
2	Minimization of Impermeable Surfaces	Fully Satisfied	N
3	Swales, Inlet Filtration, Dry Weather Diversion	Partially Satisfied	Y
4	Storm Drain Outlet Design	Fully Satisfied	N
5	Standard BMP - SC70	Fully Satisfied	N
6	Standard BMP - SC20	Fully Satisfied	N
7	Not Addressed	Not Satisfied	Y
8	Water Quality Monitoring and Adaptive Management	Partially Satisfied	Y
9	Swales, Inlet Filtration	Partially Satisfied	Y
10	Not Addressed	Not Satisfied	Y
11	Not Addressed	Not Satisfied	Y
12	Not Addressed	Not Satisfied	Y
13	Minimization of Impermeable Surfaces, Inlet Infiltration	Fully Satisfied	N

As indicated in Table 5.6-7, *Evaluation of the Water Quality Management Plan*, the SUSMP requirements would not meet four of the 13 requirements (Nos. 7, 10, 11, and 12). Also, the WQMP only partially satisfies requirements Nos. 3, 8, and 9.

The requirements associated with design of trash storage areas, loading/unloading docks, repair/maintenance bays, and vehicle/equipment wash areas were not discussed in the WQMP. Trash storage area design is a concern on the UPVA and the RHA. Proper design of loading and unloading docks within the RHA and the golf practice facility require special attention. The design of the maintenance bays and the vehicle wash areas for the golf course carts, maintenance vehicles, and security vehicles also require special attention. The source used in the WQMP to determine applicable Standard BMP was the *California Storm Water Best Management Practice Handbook - Municipal*. These issues require additional

mitigation in the form of Best Management Practices which are discussed in *California Storm Water Best Management Practice Handbook - Construction Activities*, *California Storm Water Best Management Practice Handbook - Industrial/Commercial*. Additional mitigation has been required to ensure that potential impacts associated with loading/unloading docks and wash areas are reduced to less than significant levels.

The requirements which were partially satisfied include Nos. 3, 8, and 9. Requirement 3 is not fully satisfied since the WQMP disregards treatment for a few areas of the golf course and does not fully address maintenance requirements associated with the swales. The eastern swale shown on Exhibit 5.6-4, *Discharge Pt. 1 Conceptual Drainage System Schyematic*, does not meet the minimum Criteria for minimum hydraulic residence time. Listed in Appendix B - Section B.13 Vegetative Swale of the *Development Planning for Storm Water Management (A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP))* for minimum hydraulic residence time. Also, there are several areas of the golf course which would not be treated. These include the practice range in subarea W4B, hole 2 in subareas W5Cand W8D, a portion of hole 4 in subarea M1A, a large portion of hole 1 in subareas M4B and M9C, and a small portion of hole 7 in subarea M9C. These areas require additional treatment methods to meet the requirements of the SUSMP. Additional mitigation to ensure that requirement Nos. 3, 8 and 9 would be satisfied and potential impacts reduced to less than significant levels has been identified (refer to *Mitigation Measures*).

Requirement No. 8 was not adequately addressed in the WQMP. The Water Quality Monitoring and Adaptive Management component does not address the proposed course of action to prove that BMP Maintenance is being carried out and does not describe specifically what information would be included in the Plan. Therefore, additional detail into the proposed content of the Water Quality Monitoring and Adaptive Management is required to reduce this potential impact to a less than significant level (refer to *Mitigation Measures)*.

Those areas with treatment proposed in the WQMP meet requirement 9. However, since additional treatment (in the areas described above) is required, requirement 9 is only partially satisfied pending the design of additional mitigation.

In summary, the Project has the potential to significantly violate water quality standards because it not only contains a golf course, but it also increases the activity levels on the Project site. Typically, a development similar to the Long Point Resort Project would be expected to increase pollutant loadings, including hydrocarbons, fertilizers, and pesticides. However, the Project proposes a comprehensive Water Quality Management Plan, including both Structural and Non-Structural BMPs. The Plan partially complies with the Standard Urban Stormwater Mitigation Plan (SUSMP) as required by the Los Angeles Regional Water Quality Control Board. Additional mitigation is required to ensure compliance with SUSMP

requirements and that impacts are reduced to less than significant levels. The additional mitigation for water quality can be broken into three sub-categories: additional Standard BMPs; additional treatment BMPs, and expansion of the proposed water quality monitoring and adaptive management plan. Proposed additional mitigation (beyond what is provided in the WQMP) is detailed in *Mitigation Measures*.

CUMULATIVE IMPACTS

5.6-4 *The proposed Project along with other future development may result in increased hydrology and drainage impacts in the area. Impacts are evaluated on a project-by-project basis in order to mitigate to a less than significant level.*

For the purposes of the drainage and water quality analysis, cumulative impacts are considered for projects in the same watershed as the proposed Long Point Resort Project. Per the projects identified in Section 4.0, *Basis for Cumulative Analysis*, there are four projects in either the same watershed or adjacent watersheds. The expansion of the Point Vicente Interpretive Center is the only project that is in the same watershed as the Long Point Resort Project. The Point Vicente Interpretive Center is located immediately downstream of the western portion of the golf course. The planned expansion of the Interpretive Center would not significantly impact drainage or water quality. Therefore, the cumulative impacts and mitigation for the projects would be limited to those associated with the Long Point Resort Project.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements analyzed in the Impacts discussion.

DRAINAGE AND RUNOFF

5.6-1 The City may require that the Applicant utilize slant drains for discharge over the bluffs. If, the City determines that the slant drains are required, the design of the slant drains shall be completed in accordance with the City of Rancho Palos Verdes' City Engineer's standards during the design phase of the Project. Issues that would be addressed in the design phase include: outlet siting, geotechnical considerations, and wave action impacts on the structures.

WATER QUALITY - CONSTRUCTION

5.6-2 Prior to Grading Permit issuance and as part of the Project's compliance with the NPDES requirements, a Notice of Intent (NOI) shall be prepared and submitted to the Los Angeles Regional Water

Quality Control Board providing notification and intent to comply with the State of California general permit. Also, a Storm Water Pollution Prevention Plan (SWPPP) shall be completed for the construction activities on-site. A copy of the SWPPP shall be available and implemented at the construction site at all times. The SWPPP shall outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable."

WATER QUALITY - LONG TERM

5.6-3 Prior to Grading Permit issuance, the Applicant shall prepare, to the satisfaction of the Public Works Director, a Water Quality Management Plan, which includes Best Management Practices (BMPs), Structural Measures, and Adaptive Management, under the guidelines in *Development Planning for Storm Water Management-A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* prepared by Los Angeles County Department of Public Works dated May 2000. The SUSMP is a new National Pollutant Discharge Elimination System (NPDES) Permit requirement for Los Angeles County.

It was determined that the current Water Quality Management Plan did not meet the SUSMP requirements for the design of several Standard BMPs. The Water Quality Management Plan shall be revised to include the additional Standard BMPs listed below:

From the *California Storm Water Best Management Practice Handbook - Construction Activity*:

CA 20 Solid Waste Management - This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas.

From the *California Storm Water Best Management Practice Handbook - Industrial/Commercial*:

SC 3 Vehicle and Equipment Washing & Steam Cleaning - This BMP provides regulations for the cleaning of equipment used on-site. The BMP requires the consideration of utilizing off-site commercial washing and steam cleaning business. If on-site washing is preferred, designated wash areas must be identified and designed to the standards listed in the handbook.

SC 4 Vehicle and Equipment Maintenance and Repair - This BMP details appropriate measures to keep oil and grease, heavy metals and toxic material from coming in contact with stormwater runoff.

SC 5 Outdoor Loading/Unloading of Materials - This BMP describes measures to prevent and reduce the discharge of pollutants to stormwater from outdoor loading and unloading of materials. The primary design features to reduce pollution are: covering the loading/unloading docks; preventing storm run on; and containing spills.

Treatment BMPs

Two areas identified in the impact analysis as needing additional mitigation are the proposed east swale and those golf course drainage areas not addressed in the Water Quality Management Plan.

The east swale does not meet the minimum criteria for optimal swale performance as detailed in Appendix B, Section B.13 of the SUSMP Manual. Specifically, the hydraulic residence time for the eastern swale is less than the 5 minute optimum criteria. Therefore, the swale shall either be lengthened, using a large radius curved path or if it is not possible to lengthen the swale, the swale shall be enlarged by increasing the flow depth and/or swale width. If none of these options are feasible, detention to attenuate flows shall be incorporated as part of a treatment train.

For those areas of the golf course which have been identified as not receiving specific treatment before discharging into natural areas or storm drains, appropriate treatment shall be incorporated into the Project. Appropriate treatment is either vegetative swales, enhanced vegetated swales utilizing check dams and wide depressions, a series of small detention facilities designed similarly to a dry detention basin, or a combination of these treatment methods into a treatment train. The Water Quality Management Plan shall address treatment for all areas of the golf course to assure that the runoff from the golf course is treated to the “maximum extent practicable.”

In order for the vegetation swales to be effective in the removal of potential pollutants, the swales shall be treated as a water quality feature and shall be maintained in a different manner than the turf of the golf courses. Specifically, pesticides, herbicide, and fertilizers, which may be used on the golf course turf shall not be used in the vegetation swales.

All swales or basins, shall be designed to treat the First Flush Treatment per the SUSMP criteria of designing mitigation to treat the volume of runoff from the 0.75" of rainfall. This treatment along with other the other components of the WQMP shall fulfill the requirements of the SUSMP.

Water Quality Monitoring and Adaptive Management Plan

The Water Quality Management Plan does not address BMP maintenance nor does it detail how the water quality monitoring would be completed and how the results would affect the Adaptive Management Plan. Additional mitigation required includes a comprehensive Water Quality Monitoring and Adaptive Management Plan. The Plan shall addresses the following issues:

- BMP Maintenance - Maintenance for the treatment BMPs (filtration units, swales, detention basins) shall be performed at specific intervals depending on the specific BMP. At a minimum the BMPs shall be maintained at the beginning of the rainy season (October 15), at least once during the rainy season, and following the rainy season (April 15). Maintenance for swales shall consist of mowing, irrigation maintenance, and sediment removal. Mowing shall take place on an as-needed basis to maintain optimal grass height. Filtration units shall be maintained and inspected once per month, after each storm event, and at the end of the dry season. Detention basins shall be inspected based on the minimum standards above and sediment shall be removed on an as-needed basis pending the results of monthly inspections during the rainy season.

- Proof of BMP Maintenance and Inspection - The plan shall identify who is responsible for maintenance and inspection. The plan shall also set forth a method for logging, tracking, and reporting BMP maintenance and inspection to the appropriate City officials.

- Water Quality Monitoring - The plan shall identify who will perform and be responsible for the monitoring of the treatment BMPs. The monitoring shall take place for at least 5 years post construction. Monitoring shall be completed for a minimum of 5 storms per year and twice during the dry weather months. Monitoring shall include gathering data on flow measurement, and constituent levels for both pre- and post-treatment. This information shall be logged, tracked, and reported to the appropriate City officials.

- Adaptive Management Plan - Using the BMP inspection, maintenance, and monitoring data collected on a yearly basis, an adaptive management plan shall be issued on an annual basis for a 5-year period once construction is completed. The adaptive management plan shall not only report the findings of inspection, maintenance, and monitoring, it shall utilize this information to determine any necessary changes in the current WQMP. The report shall also specifically discuss the effectiveness of the Golf Course Management Portion of the Water Quality Management Plan. The Plan shall be submitted to the City for their review and approval.

CUMULATIVE

5.6-4 Impacts would be mitigated on a case-by-case basis.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to hydrology and drainage have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes codes.

5.7 LAND USE AND RELEVANT PLANNING

The purpose of this Section is to identify the existing land use conditions, analyze Project compatibility with existing uses and the consistency with relevant planning policies and recommend mitigation measures to reduce the significance of potential impacts. Information in this Section is based on site surveys conducted by RBF Consulting in August 1999 and August 2000. RBF also utilized ground and aerial photographs for the on-site and surrounding land use analysis, as well as the City of Rancho Palos Verdes General Plan (1975), the City of Rancho Palos Verdes Development Code, and City of Rancho Palos Verdes Coastal Specific Plan. This Section provides on-site and surrounding land use conditions and land use policy requirements set forth by the City of Rancho Palos Verdes.

EXISTING CONDITIONS

ON-SITE LAND USES

The proposed Long Point Resort Project site encompasses approximately 168.4 acres located in the southwest portion of the City of Rancho Palos Verdes. The Project site generally involves two geographical areas including the Resort Hotel Area (RHA) and the Upper Point Vicente Area (UPVA) (refer to Exhibit 3-2, *Site Vicinity*). The majority of the Project site is made up of the RHA which is located on the ocean side of Palos Verdes Drive South, on the site which was historically occupied by the Marineland Aquatic Park. The remainder of the Project site involves the UPVA which is located on the landward side of Palos Verdes Drive South, surrounding the existing Civic Center, corporate yard, and Point Vicente Park. Property ownership is detailed in Table 3-1, *Property Ownership*. Existing land uses for each Project area are described below.

Resort Hotel Area

The RHA involves approximately 103.5 acres situated on the Long Point site within Subregion 2 of the City's Coastal Specific Plan area. The RHA is the location of the former Marineland Aquatic Park, and is bounded Palos Verdes Drive South to the north, the Pacific Ocean to the south, residential areas to the east and the Pacific Ocean/open space to the west. Improvements associated with Marineland resulted in the disruption and grading of a vast majority of this site. Although the parking lots, roads and several structures associated with Marineland still exist today, the majority of the structures were demolished in 1988. Buildings which remain standing include, among others, the Galley West Restaurant and Bar, Pereira Motel, Lookout Point Bar, and the still-operating Catalina Room, a banquet facility. The

RHA is currently used for several property offices (including those of the landowner, York Long Point Associates (YLPA)), weddings, and occasional movie shoots.

Upper Point Vicente Area

The inland component of the Project is referred to as the UPVA. This approximately 64.9-acre area lies outside of the City's Coastal Specific Plan area and the State's Coastal Zone. This area is bounded by a neighborhood shopping center (Golden Cove), a church (St. Paul's Lutheran Church), and a residential condominium complex (Villa Capri) to the north, and by Palos Verdes Drive South and Palos Verdes Drive West to the south and west. Situated to the east of this area are the City of Rancho Palos Verdes City Hall, the City's corporate yard, Point Vicente Park, and the Salvation Army Regional Training Center. A 3.9-acre U.S. Coast Guard site that forms an island within this area, west of the City Hall, however, is not a part of the Project.

Overall, this area has been extensively graded for military and agricultural uses. Situated within the limits of this area is the City's Corporate Yard (approximately four acres) which includes outdoor storage and maintenance facilities. Situated within the City's Corporate Yard are remnants of the area's past use as a missile facility including two approximately 3,000 square foot underground silos which are tucked behind the bluff. A fire access road traverses through this area extending from the City Hall to the U.S. Coast Guard site. Existing uses on the U.S. Coast Guard site include a World War II-era bunker situated at the terminus of the fire access road and governmental/commercial uses related to an onsite antenna. Situated along the area's eastern boundary, adjacent to the Salvation Army's property, is an approximately 3.6 acre area presently used for agricultural purposes.

OFF-SITE LAND USES

Existing land uses surrounding the Project site are comprised of both private and public uses. These uses are illustrated on Exhibit 3-2, *Project Vicinity,* and are summarized below.

Private

East of Palos Verdes Drive South and North of Hawthorne Boulevard. This area is generally comprised of single-family residential neighborhoods, open space/ undeveloped lands, and the Los Verdes Golf Course.

Capital Pacific Holdings (CPH) Residential Development (Tract Map No. 46628). This132-acre property is generally located north and west of the Hawthorne Boulevard/Palos Verdes Drive South intersection, and within Subregion 1 of the City's Coastal Specific Plan. This property is currently being developed by CPH as a Planned Residential Development for 79 single-family homes. Of the 132 acres, approximately 44 acres were designated as open space, involving all or portions of

five lots (Lots 81, 82, 83, 85, and 86 of Tract Map 46628) and were dedicated to the City as a part of the CPH development. With the exception of a 27-acre preserved area of Coastal Sage Scrub habitat situated northwest of the Hawthorne Boulevard/Palos Verdes Drive South intersection, all of the Subregion 1 area has been disturbed by human intrusion or rough graded in association with the CPH residential development.

Mixed Use Area at Hawthorne Boulevard and Palos Verdes Drive. The developments which compose the southeast corner of the Hawthorne Boulevard and Palos Verdes Drive South intersection are described as follows:

- *Golden Cove Neighborhood Shopping Center*. The Golden Cove Shopping Center is situated nearest to this intersection and includes a variety of neighborhood retail commercial and convenience services, as well as several restaurants.

- *St. Paul's Lutheran Church*. St. Paul's Lutheran Church is situated along Palos Verdes Drive South, between the shopping center and the northwestern portion of the UPVA. The Church holds services on Sundays and on Wednesdays. Access to the Church is provided from Palos Verdes Drive South, via a driveway located between the Church's main building and a vacant property situated immediately to the north.[1]

- *Villa Capri Townhomes*. The Villa Capri Townhome development is located immediately adjacent to the northeastern portion of the UPVA, and east of St. Paul's Lutheran Church. This multi-family residential area involves 49 two-story units developed in 1988-89.

Salvation Army Regional Training Center. The Salvation Army Regional Training Center is located immediately adjacent to the UPVA's eastern boundary. This property involves a campus of educational buildings, housing and recreational facilities which are operated as the Salvation Army Western Regional Headquarters and Training Center. A 12-court tennis complex and the majority of the campus buildings are located along the northern portion of the property, while a cluster of housing units constructed in the mid 1980's is located in the southern portion. Access to the Center is provided from Hawthorne Boulevard, primarily, and via Crestmont Lane, a private entry road which is aligned directly opposite from the historic Marineland Aquatic Park entry. The Salvation Army property was zoned institutional when the City was incorporated in 1973.

[1] This vacant property is proposed for development of a Montessori School (also refer to Section 4.0, *Basis for Cumulative Analysis*).

Residential Areas East of the Resort Hotel Area and West of Palos Verdes Drive West. Property to the east of the RHA is zoned and developed for a mixture of medium- and low-density residential developments. Paralleling the RHA's eastern boundary and located on the east side of Nantasket Drive are *The Villas*, a four-story apartment complex. Situated north of The Villas, along Channel View Court and Beachview Drive, are townhouses and single-family homes. Along Seacove Drive and directly fronting the bluffs, the land is zoned for one-acre lots and has been developed with single-family homes.

Public

Lower Point Vicente Agricultural Area. This area involves 11.2 acres situated between the CPH development, Palos Verdes Drive South, and the City's Point Vicente Interpretive Center. This area is currently leased by the City from the County of Los Angeles. The Lower Point Vicente Area has limited disturbance and is currently used for a mix of agricultural activities.

Subregion 1 Public Parking/Staging Area. This public access area is being developed as a part of residential Tract No. 46628, located in Subregion 1 of the Coastal Specific Plan. The area consists of approximately 15 on-street parking spaces and 25 off-street parking spaces.

Point Vicente Interpretive Center. The Point Vicente Interpretive Center, situated north of the Point Vicente Lighthouse, was opened by the City of Rancho Palos Verdes in the summer of 1976. Current improvements include an interpretive center building, small amphitheater, scenic overlooks, a turf area and landscaping. Shoreline access from this site is currently precluded by the steep topography of the bluff. A major expansion of this facility was started by the City. Proposed improvements include additional building floor area (6,824 square feet of museum, gift shop, classroom, office, restroom, multi-purpose room, etc.) terraces, an amphitheater, walking paths, parking areas, drive aisles, lighting, landscaping, etc. However, construction has since been delayed due to the discovery of lead in the property's soil.

Point Vicente Lighthouse. The Point Vicente Lighthouse involves an approximately 18.9-acre site situated northwest of the RHA, on a plateau atop Point Vicente. Erected in 1926, it flashes a two-million candlepower light more than 20 miles to sea. The addition of a radio station, living quarters and helicopter landing pad historically made Point Vicente Lighthouse a principal communication center for the U.S. Coast Guard in Southern California, as well as a base for rescue operations.

Point Vicente Fishing Access/Beach. The Point Vicente fishing access is a fully-developed and heavily-used approximately 10.5-acre site owned by the County of Los Angeles. This fishing access is situated immediately west of the RHA. Approximately 46 public parking spaces and a restroom structure are located on top of the bluff directly adjoining Palos Verdes Drive South. From there, a well-defined

dirt ramp provides pedestrian access down the bluff to the nearby shoreline. The trail (referred to by local users as "Cardiac Hill") serves divers, fishermen, picnickers, beachcombers and sightseers. Due to the difficulty of negotiating the rocky headlands, this access point provides only localized, not continuous, shoreline access.

Rancho Palos Verdes City Hall/Point Vicente Park. Contains approximately 11 acres situated immediately east of the UPVA, is currently used by the City of Rancho Palos Verdes for its City Hall and as the Point Vicente Park. The City Hall, which was located on the property in 1975, continues to be housed within buildings originally constructed for a Nike air-defense missile facility that occupied the property during the middle of the Cold War. The City's Corporate Yard is situated immediately south of the City Hall, within the limits of the UPVA.

The Point Vicente Park facility is situated in the area surrounding the Civic Center. Amenities available at this facility include, but are not limited to, tennis courts and sand volley ball courts.

RELEVANT PLANNING POLICIES

Existing Entitlements

Resort Hotel Area. This 103.5-acre area is comprised of two parcels, a 102.1-acre parcel owned by York Long Point Associates and a 1.4-acre parcel owned by Cigna Properties.

Three months after Marineland closed, Harcourt, Brace & Jovanovich sold the land and assets to the Monaghan Company. It was the objective of the Monaghan company to develop a world class resort hotel and conference center with a full range of recreational amenities. On January 31, 1990, the Monaghan Company submitted to the City of Rancho Palos Verdes their application for the proposed development. The Final Environmental Impact Report (EIR) (State Clearinghouse No. 880-62211, Conditional Use Permit (CUP) No. 136 and Coastal Permit (CP) No. 52) was certified by the City Council on July 2, 1991. The EIR assessed the potential environmental impacts associated with the following proposed development:

- Hotel. 575 rooms (531 rooms within a five-story main building and 44 single floor deluxe units detached from the main hotel building), underground parking for 706 cars;

- Conference Center Complex. 60,000 square-feet consisting of a Grand Ballroom, specialized registration area, pre-function and food and beverage facilities, including a coffee shop, specialty restaurant, lobby lounge, entertainment lounge and three additional cocktail lounges;

- Executive-style golf course. A three par, nine-hole golf course integrated throughout the site;

- Casita units. 184 casita units constructed around golf course plus an additional 111 casita units;

- Flower market. 10,000-square-foot café and flower market offering informal dining and parking for 35 cars;

- Public Parking. A public parking lot accommodating 150 cars;

- Athletic Complex. 48,500 square feet including, but not limited to six racquetball courts, two squash courts, a spectator area, a gym (basketball, volleyball, fashion shows and special events, a café, men and women's weight rooms, fitness area, aerobics studio (with adjoining store), men's and women's locker rooms and executive lounges, a health assessment area, tanning salon, a child care facility, a 50-meter swimming pool and patio area; 11 lighted tennis courts, one lighted tennis court stadium, and a surface parking lot for 110 cars;

- Heliport. a private heliport;

- Rehabilitation of the Galley West Restaurant. With 40-car surface parking lot; and

- Second Hotel. 200-room hotel would offer additional dining and retail shops. An additional 216 parking spaces would be provided beneath the hotel.

Also in 1991, the property received City and Coastal Commission entitlements to construct a scaled down version of the development described above, including a Conditional Use Permit (CUP #136) and a Coastal Development Permit (CDP #A5-RPV-91-046, approved September 11, 1991), as well as related grading and building permits. The entitlements were for development of the following land uses:[2]

- 390 new rooms plus 10 refurnished rooms
- 50 casitas
- 9-hole golf course
- 30,000 square-foot conference center
- Galley West Restaurant rehabilitation
- 25,000 square foot spa/fitness center

[2] Correspondence: Dave Snow, November 22, 2000.

- 8 tennis courts
- 30,000 square foot country market/café
- 102.2 total acres

In 1995, York Long Point Associates, the current landowner, purchased the property. The CUP and CDP approvals have received extensions through September 11, 2001 and remain viable entitlements, independent of the current proposed Project.

The approximately 1.4-acre parcel owned by Cigna, which extends along and defines the eastern property line of the RHA (west of Nantasket Drive), was not a part of the resort hotel and conference center development described above.

Upper Point Vicente Area. This 68.3-acre area is made up of a 64.4-acre parcel and a 3.9-acre parcel. The 64.4-acre parcel is part of a larger 75.53-acre parcel transferred to the City of Rancho Palos Verdes in October 1979 by the United States Department of the Interior National Park Service "for public park and public recreation area purposes".[3] The Deed established a Program of Utilization (POU) for the transferred property. The POU provides for the development of both active and passive recreational uses on the property.

City of Rancho Palos Verdes General Plan

The City of Rancho Palos Verdes General Plan is not organized into traditional elements, rather, is integrated into functional relationships, which eliminates the duplication inherent which may be in traditional General Plans. The elements of the General Plan which particularly relate to the Project site include the following:

- Natural Environment Element
- Socio/Cultural Element;
- Urban Environment Element;
- Land Use Plan; and
- Revised Housing Element.

The General Plan Elements relevant to the proposed Project are described below. The General Plan policies which are relevant to the proposed development are detailed in Table 5.7-2, *General Plan Consistency Analysis*.

Natural Environment Element. The Natural Environment Element is a composite of those areas requiring considerations of public health and safety, and those areas requiring preservation of natural resources. Resource Management (RM) Districts, made up of various factors with associated degrees of capability or suitability for development, have been established throughout the City. Any proposed use or

[3] Quitclaim Deed, October 30, 1979, Exhibit A, Page 1.

development within these districts must respond to specific development criteria established for each factor. According to Figure 14, *Natural Environment Element*, of the General Plan, portions of the Project site are situated within each of the RM Districts.[4] The RM Districts relevant to the Project site and their purpose are described below:

Upper Point Vicente Area

High Slope (RM 3):	Slopes are between 25% and 35% with considerations similar to Extreme Slope, although, the lesser degree of slope enables a greater degree of use flexibility.
Natural Vegetation (RM 9):	Identifies open natural hillsides (i.e., wild flowers, low coastal sage scrub, chaparral, and grassland communities).

Resort Hotel Area

Sea Cliff Erosion (RM1):	To ensure public safety from sea cliff erosion, landslide, and to maintains the physical, biological and scenic resource of particular value to the public.
Extreme Slope (RM 2):	To regulate use, development and alteration of land in extreme slope areas (35% or greater) so that essential natural characteristics can be substantially maintained.
High Slope (RM 3):	Refer to discussion above.
Old Landslide Area (RM 5):	Areas with downslope movement in the past, but not currently moving. Movement in certain areas could be again triggered and much of the area would not be suitable for most developments and uses.
Hydrologic Factors (RM 6):	To maintain the optimum operation of the hydrologic cycle.
Marine Resource (RM 7):	To establish the rocky intertidal area as a marine reserve and strictly enforce all regulations concerning marine resources.

[4] All City Plans, including the General Plan, are available for review at the City Hall Planning Department.

Wildlife Habitat (RM 8):	To maintain existing wildlife habitats in natural open space with vegetation and natural drainage patterns maintained to provide water and foraging material in the habitat.
Natural Vegetation (RM 9):	Refer to discussion above.

Socio/Cultural Element. This Element identifies the City's goals and policies for preservation of its paleontological, historical and archaeological resources and for social, service and cultural organizations.

Urban Environment Element. The Urban Environment Element addresses concerns for those areas of the City set aside for some structured use which either directly (primary activity areas) or indirectly (secondary activity areas) serve a function oriented toward urbanization. Primary activity areas include sites where residential, commercial, industrial, recreational, or institutional activities take place. Secondary activity areas are sites used for infrastructure activities which primarily serve the primary urban activity areas.

The Urban Environment Element also provides goals and policies for circulation, noise, visual aspects, and public services and infrastructure. Pertinent City goals and policies for these categories are discussed in the relevant environmental analysis sections of this EIR.

Upper Point Vicente Area

Figure 17, *Public Recreational Activity*, depicts the UPVA as a Recreational Activity area, labeling the area as the “Lower Nike Site”. The General Plan defines public recreational facilities as those proposed, planned, acquired, developed, and operated by the various levels of government.

Recreational facilities in the City are grouped into active recreational areas or passive recreational areas. Active recreational facilities are highly structured and designed with specific activity areas, such as recreation buildings, tennis courts, baseball fields, children’s play apparatus, etc. Conversely, passive recreational facilities are mostly unstructured in order to allow natural ecosystems to function with the least amount of human disturbance. Passive sites are usually used for nature studies, hiking trails, limited picnicking areas, etc.

The Recreational Activity section of this Element also notes the following regarding this area:

- That [active] recreational facilities be incorporated into the overall use of the upper and lower Nike Sites (Page 94);

- Large portions of the Nike Site are designated for park purposes in conjunction with a Civic Center (Page 96).

Resort Hotel Area

This area is designated *Commercial Recreational* on Figure 16, *Commercial Activity*, of the Urban Environment Element. According to this Element, the expansion of Marineland is recognized by the General Plan, subject to certain Policies (refer to Table 5.7-2).

This Element (Page 84) further notes that "additional limited scale commercial recreational uses are possible for various locations throughout the City. These include equestrian, golf, tennis, and other recreational activities, as appropriate to a particular location".

Land Use Plan. According to the General Plan, the Land Use Plan for the City is a composite of the other elements. The determination of appropriate land uses is derived from the natural environmental, socio/cultural, and urban environmental constraints and opportunities analyzed throughout the General Plan process. Determinants of appropriate uses include the following:

- Natural environmental constraints: climate, geotechnical factors, hydrology, and biotic resources;
- Social and cultural resources and needs of the community and region;
- Existing and future adjacent development patterns intensities, and structural types;
- Capacity of infrastructure, local and regional;
- Safety; and
- Visual and noise consideration.

According to the Land Use Plan, Overlay Control Districts are incorporated into the General Plan in order to further reduce impacts that could be induced by proposed and existing development in sensitive areas. Major disruptive treatment of these land areas would alter features including significant natural, urban, and socio/cultural characteristics, which form the City's character and environment.[5] Those land areas which were determined in the various General Plan Elements to possess special features were included within an Overlay Control District.

[5] City of Rancho Palos Verdes General Plan.

The General Plan designated the City's coastal region as one of two Specific Plan Districts. This Coastal Specific Plan District is defined by the City boundaries at both extremities and includes the land area from the mean high tide line to Palos Verdes Drives West and South. There are approximately 960 acres in the coastal region which is divided into eight sub-regions. The Rancho Palos Verdes Coastal Specific Plan was adopted in 1978 in accordance with California Planning and Zoning Law in order to implement the City's General Plan within the coastal region.

The Project site's land use designations, overlay control districts, and specific plan district are illustrated on Exhibit 5.7-1, *General Plan Land Use Map Designations*, pursuant to the General Plan Land Use Map (June 1975). These designations and districts are defined as follows:

Resort Hotel Area

- Commercial Recreational: Commercial uses in the City are addressed in the Urban Environment Element which states that "Commercial Recreational activity in Rancho Palos Verdes consists of the large entertainment/ recreation attraction of Marineland" (Page 80);

- Urban Activities Overlay Control District: The northern portion of the RHA which borders Palos Verdes Drive South is situated within this District. This District involves land areas with food and flower production, recreational, aesthetic, and scenic qualities, hill areas, and predominant views;

- Socio/Cultural Overlay Control District: The RHA in it's entirety is situated within this District. This District is intended to preserve, protect, and maintain land and water areas and improvements which have significant historical, archaeological or cultural importance to the public; and

- Specific Plan District: The RHA is entirely located within the easterly portion of Subregion 2 of the Coastal Specific Plan District. Refer to the *Coastal Specific Plan* discussion below for further details regarding this District.

Upper Point Vicente Area

- Recreational Passive: Recreational uses designated on the Land Use Plan are those areas already held by public agencies and developed or proposed for development for active or passive recreational activity.[6] As previously noted, passive recreational facilities are mostly unstructured in order to allow natural ecosystems to function with the least amount of human disturbance. Passive sites are usually used for nature studies, hiking trails, limited picnicking areas, etc.

[6] Ibid., Page 197.

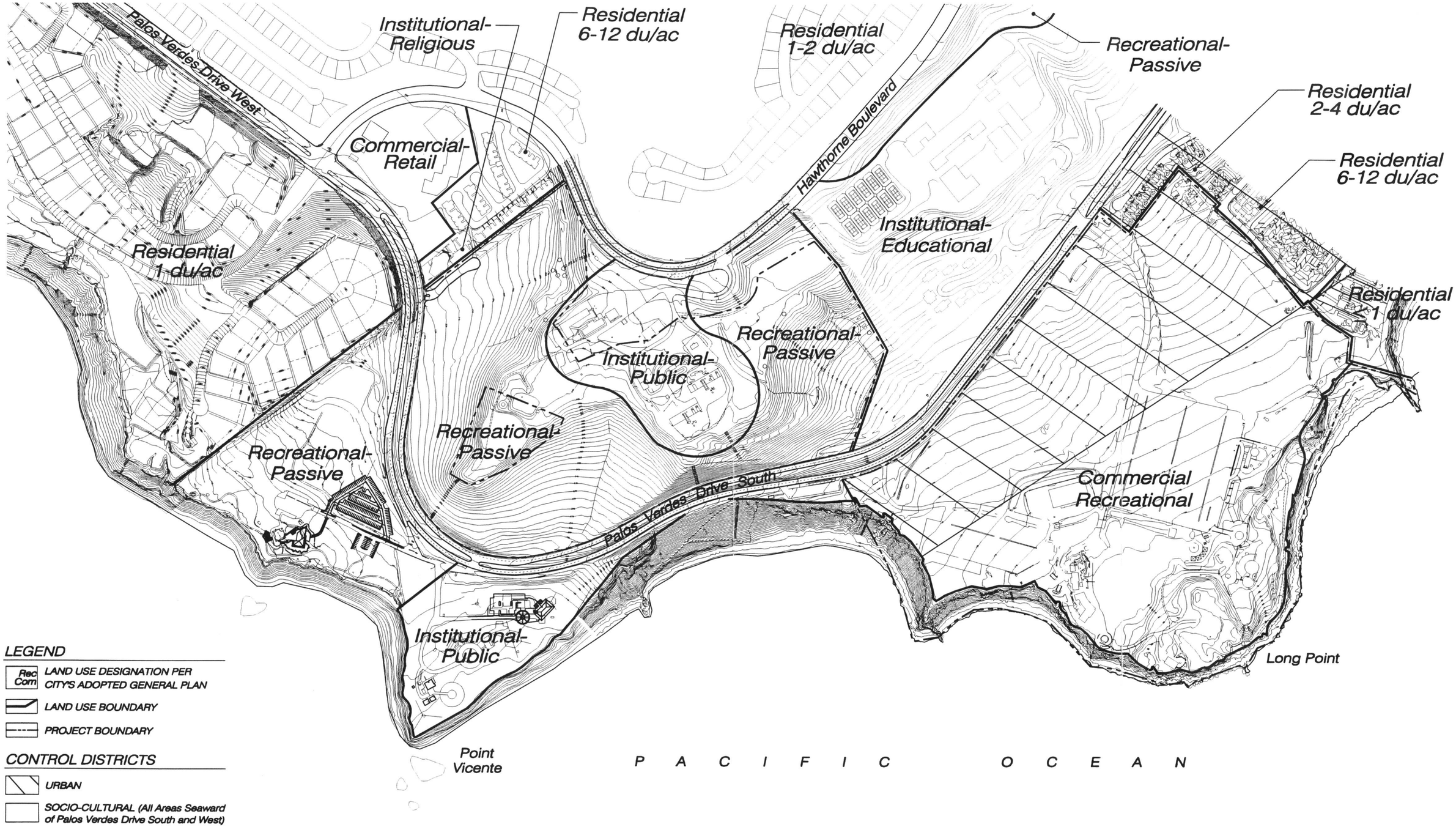
It should be noted that a portion of the Point Vicente Park within the UPVA is designated Recreational-Passive in the Land Use Map. The "Point Vicente Park" referred to in the *Passive Recreational Areas* discussion in the Land Use Plan (Page 96) is described as the section of the Nike site "on the ocean side of Palos Verdes Drive West, just north of Point Vicente Lighthouse"- the portion of the park not within the boundaries of the UPVA.

- Institutional Public: Institutional uses include public, educational, health, religious, and cultural activities. Institutional Public uses include City, Fire, County, State and Federal facilities. The portion of the UPVA designated as Institutional Public is made up of portions of the Civic Center area, Point Vicente Park and an area near the southeastern corner of the site; and

- Natural Overlay Control District: A small portion of the UPVA located near it's southeastern corner is situated within this District. This District involves lands with significant natural factors, water courses, surface/marine waters, groundwater, slope areas, unique features (geologic/biologic/hydrologic), or hill areas. The *Natural Environment Element* discussion above details each factor.

Further, the Land Use Plan considers Recreational activities as generally compatible with institutional uses, often forming part of such uses (Page 197).

It should be further noted that while the Land Use Plan has not designated any portion of the UPVA as Agricultural, an approximately 3.9-acre area is presently used for agricultural purposes.



LEGEND

- Rec / Com — LAND USE DESIGNATION PER CITY'S ADOPTED GENERAL PLAN
- LAND USE BOUNDARY
- PROJECT BOUNDARY

CONTROL DISTRICTS

- URBAN
- SOCIO-CULTURAL (All Areas Seaward of Palos Verdes Drive South and West)

NOTE: This map is a facsimile of the adopted map and was prepared to illustrate at larger scale the land use/zoning designations within and surrounding the Long Point Resort. Although every effort was made to confirm the accuracy of this map, the adopted map is and will remain the official map of the City of Rancho Palos Verdes.

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SOURCE: FORMA

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LONG POINT RESORT EIR

General Plan Land Use Map Designations

Exhibit 5.7-1

Local Coastal Program

The California Coastal Act of 1976 (California Public Resources Code § 30000 et seq.) establishes policies guiding development and conservation along the California coast. The Coastal Act requires local governments such as the City of Rancho Palos Verdes to prepare Local Coastal Programs for areas within their jurisdiction that lie within the Coastal Zone boundary. A Local Coastal Program is defined by Coastal Act § 30108.6 as follows:

> *"Local Coastal Program" means a local government's (a) Land Use Plans, (b) zoning ordinances, c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of, this division at the local level."*

The California Coastal Act of 1976 requires approval (i.e., "certification") of a City's Local Coastal Program by the California Coastal Commission. The City of Rancho Palos Verdes Coastal Specific Plan was certified with conditions by the California Coastal Commission in January 1980. It provides a detailed long-range strategy for development of the coastal area. Rancho Palos Verdes has organized its Local Coastal Program as follows:

- Specific Plan: The required LCP Land Use Plan under the California Coastal Act is the City's Coastal Specific Plan as discussed above; and

- Implementing Actions Program: The City's Development Code (Zoning Ordinance) is the City's primary Implementing Actions Program for the City's LCP unless a more detailed Specific Plan is adopted and certified for a component area pursuant to California Government Code § 65450 et seq.

The RHA is within the Coastal Zone as defined by the California Coastal Act, and is therefore under the land use planning and regulatory jurisdiction of both the City of Rancho Palos Verdes and the California Coastal Commission. The UPVA is outside of the City's Coastal Zone.

Rancho Palos Verdes Coastal Specific Plan

The Coastal Specific Plan (CSP) serves not only as a local Specific Plan, but also represents the City's local land use plan component of the Local Coastal Program. The study categories of the CSP include: natural environment element, socio-cultural element, urban environment element, corridors element and fiscal element. Areas which share common characteristics within the CSP area are divided into

subregions. There is a total of eight subregions identified within the CSP, with the RHA located within Subregion 2.

Subregion 2 consists of three public uses: one being a large commercial recreation center (i.e., the RHA: former Marineland site). The overall character Subregion 2 is that of an attractor/generator to both residents of Rancho Palos Verdes and those who reside outside of the Peninsula.[7]

The RHA's CSP land use designations and overlay control districts are illustrated on Exhibit 5.7-2, *Coastal Specific Plan Land Use Map Designations*, pursuant to the Coastal Specific Plan Land Use Map (December, 1978). These designations and districts are described as follows:

Commercial Recreational. The majority of the RHA is designated for this use. Within Subregion 2, the former Marineland site is the only property with this designation.

The Coastal Specific Plan notes the following with respect to the Commercial uses on the Marineland site:

> *"Any future development on the site will require City approval in the form of a Conditional Use Permit. Compatible uses could include those of a commercial recreational nature, visitor-oriented, such as additional oceanarium attractions, retail facilities, recreation uses, motel, convention facility, restaurants, museum, etc. Those considered not compatible are those of a "carnival" nature.*
>
> *The major criteria which will be of concern with any future development proposals are:*
>
> - *Protection of visual corridors;*
> - *Enhancement of visual quality;*
> - *Buffering from adjacent residential uses;*
> - *Attenuation of noise and light; and*
> - *Protection of the natural environment."*

Agricultural. The eastern portion of the RHA is designated for this use. The CSP notes the following with respect to the RHA (Page S2-7):

[7] Rancho Palos Verdes Coastal Specific Plan, December 1978, Page S2-5.

Palos Verdes Drive West

Residential ≤ 1 d.u./ac.
(Natural Control District)

Coastal Zone Boundary
(Inland Boundary of Improved
Right-of-Way Pursuant to
Public Resources Code Section 30150)

Subregion 1

Subregion 2

Recreation
Parkland

P

Parking

Institutional-
Public

Point
Vicente

Recreation Parkland

Palos Verdes Drive South

P

a

P

Bluff
Access
(Recreation)

Parking

Natural Environment/Hazard

Residential
2-4 d.u./ac.

Subregion 3

Subregion 2

Agricultural

a

Commercial-
Recreational

Bluff
Access
(Recreation)

Long Point

Natural Environment/Hazard

P A C I F I C O C E A N

LEGEND

Rec / Com — LAND USE DESIGNATION PER CITY'S CERTIFIED LCP COASTAL SPECIFIC PLAN

LAND USE BOUNDARY

COASTAL ZONE BOUNDARY

PROJECT BOUNDARY

PRIMARY PATH AND TRAIL

SECONDARY PATH AND TRAIL

CONTROL DISTRICTS

URBAN/SOCIO-CULTURAL (All Areas Seaward of Palos Verdes Drive South and West)

NATURAL - (See Appendix III for Coastal Bluff Setback Line which defines Natural Control District within City's Coastal Zone.

NOTE: This map is a facsimile of the adopted map and was prepared to illustrate at larger scale the land use/zoning designations within and surrounding the Long Point Resort. Although every effort was made to confirm the accuracy of this map, the adopted map is and will remain the official map of the City of Rancho Palos Verdes.

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SOURCE: FORMA

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Coastal Specific Plan Land Use Map Designations

Exhibit 5.7-2

"The most extensive agricultural operation in the area takes place on a 17- acre school site located at the eastern extremity of the Subregion. This site. . . .. Additional agricultural activity takes place on an undeveloped portion of Marineland's site. The grain and tree farming activities are bounded on the south by Marineland's access road and on the north by Palos Verdes Drive South.

The Coastal Specific Plan makes a primary effort to maintain agricultural activity on the 17-acre school site. This action is warranted because of the site's high crop yield, irrigation and substantial site size. In order to maintain the activity, the City needs to add an Agricultural District to its Development Code and apply it to this site. Maintaining agriculture on this site is contingent on the site not being needed for a school, and sufficient funding from other agencies being available for purchase of the site. Should these conditions not be met, then the Plan recommends a secondary use of Commercial Recreation as proposed by the General Plan.

Should the primary aim of maintaining agriculture on this site prove unworkable, then a secondary proposal of commercial recreation should be implemented. Development under a Commercial Recreational use would raise two concerns. One, the point of primary access which is discussed under vehicular networks and should be referred to therein; and two, possible adverse impacts onto adjoining residential areas located in Subregion 3.

Site planning efforts need to be cognizant of adjoining residential areas. Buffer areas should be supplied along the site's common property lines along with the shielding of any outdoor lighting. Noise should be retarded at the generating sources. A critical view corridor traverses the site (see Corridor Section) requiring structural improvements to be carefully reviewed in the affected area. Also, consideration should be given to a development's appearance from residential areas."

Recreation- Bluff Access. A bluff access point is designated at the southeastern corner of the RHA.

Recreation - Parking. A public parking area is designated near the southwestern corner of the RHA, near the Point Vicente Fishing Access; and

Natural Overlay Control District. The blufftop area for the full width of the RHA is situated within this District. This District involves lands with significant natural factors, water courses, surface/marine waters, groundwater, slope areas, unique features (geologic/biologic/hydrologic), and hill areas.

Urban Activities Overlay Control District. The RHA in it's entirety is designated with this District. This District involves land areas with food and flower production, recreational, aesthetic, and scenic qualities, hill areas, and predominant views.

Socio/Cultural Overlay Control District. The RHA in it's entirety is designated with this District. This District is intended to preserve, protect, and maintain land and water areas and improvements which have significant historical, archaeological or cultural importance to the public.

City of Rancho Palos Verdes Development Code

Zoning refers to particular land uses which are legally permitted or prohibited on any given parcel of land. It is the method the City uses to implement control of land uses, in accordance with General Plan goals and policies. The City of Rancho Palos Verdes Zoning Ordinance, Title 17 of the Municipal Code, identifies land uses permitted and prohibited according to the zoning category of particular parcels. The zoning categories for the Project site are illustrated on Exhibit 5.7-3, *Zoning Map Districts,* and described as follows:

Upper Point Vicente Area

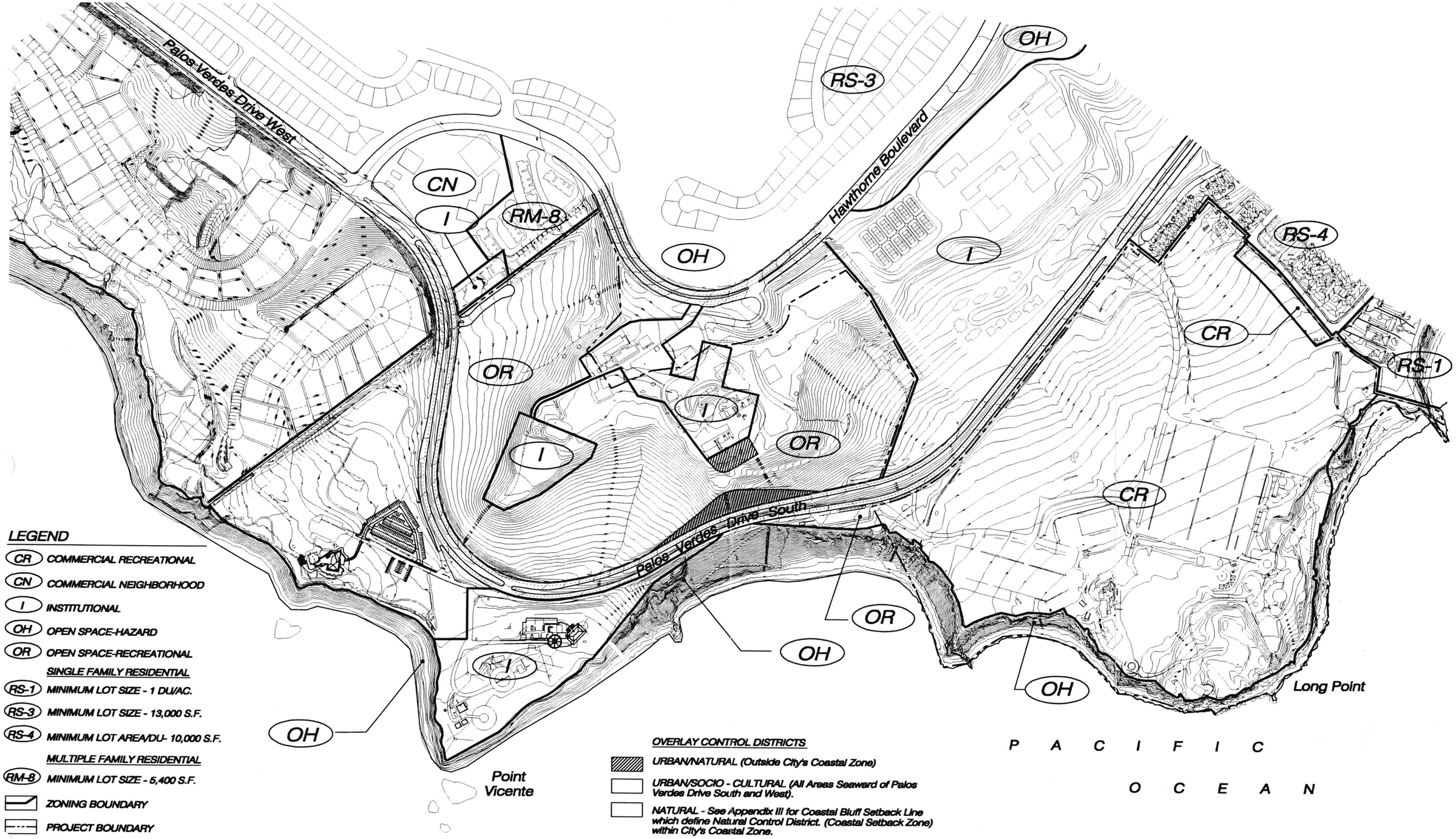
- Open Space Recreational District (OR) (Section 17.34): The open space recreation district (OR) provides open space for outdoor recreation, including, but not limited to, areas particularly suited for park and recreational purposes.

  Uses which may be constructed or conducted in open space recreation districts include, but are not limited to, the following:

  - Drainage channels, watercourses, parkways, trails and utility easements; and

  - Public Recreational Uses.

  Uses which may be constructed or conducted in open space recreation districts by conditional use permit include, but are not limited to, the following:



LEGEND

- CR — COMMERCIAL RECREATIONAL
- CN — COMMERCIAL NEIGHBORHOOD
- I — INSTITUTIONAL
- OH — OPEN SPACE-HAZARD
- OR — OPEN SPACE-RECREATIONAL

SINGLE FAMILY RESIDENTIAL

- RS-1 — MINIMUM LOT SIZE - 1 DU/AC.
- RS-3 — MINIMUM LOT SIZE - 13,000 S.F.
- RS-4 — MINIMUM LOT AREA/DU- 10,000 S.F.

MULTIPLE FAMILY RESIDENTIAL

- RM-8 — MINIMUM LOT SIZE - 5,400 S.F.
- ZONING BOUNDARY
- PROJECT BOUNDARY

OVERLAY CONTROL DISTRICTS

- URBAN/NATURAL (Outside City's Coastal Zone)
- URBAN/SOCIO - CULTURAL (All Areas Seaward of Palos Verdes Drive South and West).
- NATURAL - See Appendix III for Coastal Bluff Setback Line which define Natural Control District. (Coastal Setback Zone) within City's Coastal Zone.

NOTE: This map is a facsimile of the adopted map and was prepared to illustrate at larger scale the land use/zoning designations within and surrounding the Long Point Resort. Although every effort was made to confirm the accuracy of this map, the adopted map is and will remain the official map of the City of Rancho Palos Verdes.

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SOURCE: FORMA

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Zoning Map

Exhibit 5.7-3

- Privately-owned recreational areas of an open nature, stables, parks, playgrounds, wildlife preserves and such buildings and structures as are related thereto;

- Developments of natural resources; and

- Golf courses, driving ranges and related ancillary uses.

Additionally, development standards have been specified and shall apply to all privately owned land and structures in the open space recreation district with respect to the following:

- Minimum Lot Size;
- Building Height;
- Lot Coverage; and
- Parking.

• Institutional District (I) (Section 17.26): The institutional district provides for the wide range of major public and quasi-public, institutional and auxiliary uses established in response to the health, safety, educational, cultural and welfare needs of the city in efficient, functionally compatible and attractively planned administrative centers, medical centers, cultural centers, educational institutions and similar uses in conformance with the general plan.

Uses which may be constructed or conducted in institutional districts by conditional use permit include, but are not limited to, the following:

- Developments of natural resources;
- Outdoor active recreational uses and facilities; and
- Such other uses as the director deems to be similar and no more intensive. Such a determination may be appealed to the planning commission and the planning commission's decision may be appealed to the city council.

Additionally, development standards have been specified and shall apply to all development in the institutional district with respect to the following:

- Setbacks;
- Building height;
- Roof Equipment;
- Parking, loading and access;
- Transportation Demand Management Development Standards;
- Deliveries and Mechanical Equipment;
- Signs;
- Storage;
- Lighting; and

- Buffering and screening techniques.

Resort Hotel Area

- Commercial Recreational District (CR) (Section 17.22): This district permits those entertainment and recreational activities which are of a commercial nature, provided that a conditional use permit is obtained.

  Uses which may be permitted in the commercial recreational (CR) district by conditional use permit include, but are not limited to, the following:

  - Any new or reestablished use which is of an entertainment, visitor serving or recreational nature, including but not limited to a resort/conference hotel, restaurant, limited theme retail, tennis court, golf course and other entertainment and banquet facilities compatible with existing uses and the surrounding area. Such use, if located within the coastal specific plan district, shall be required to provide public access to and along the bluff and coastline;

  - Golf courses, driving ranges and related ancillary uses;

  - Outdoor active recreational uses and facilities; and

  - Such uses as the director deems to be similar and no more intensive. Such a determination may be appealed to the planning commission and the planning commission's decision may be appealed to the city council. If a proposed use or development is located in the coastal specific plan district, the City's final decision regarding such other use may be appealed to the California Coastal Commission for a determination that the uses are similar and compatible with the local coastal program.

  Additionally, development standards have been specified and shall apply to all development in the commercial recreational district with respect to the following:

  - Lot area;
  - Landscaping;
  - Design; and
  - Height.

- Open Space-Hazard District (OH) (Section 17.32): The open space hazard district prevents unsafe development of hazardous areas that must be preserved or regulated for public health and safety purposes. This district provides for limited recreational use of land without permanent structures,

except those approved therein. All applications for development of permanent structures submitted pursuant to the chapter shall not be deemed complete until geotechnical and/or soils reports, which analyze development of the proposed structures, have been submitted and approved by the city's geotechnical staff.

Land in open space hazard districts may be used for the following; provided, that the applicable natural overlay control district (OC-1) performance criteria established in Chapter 17.40 (Overlay Control Districts) is satisfied:

- Outdoor passive recreation uses, such as parks, trails and other suitable facilities;

- The preservation of areas of outstanding scenic, geologic, historic or cultural value;

- The preservation of natural resources, including, but not limited to, plant and animal life;

- The regulation of areas for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous conditions; and

- Other uses as provided in any applicable overlay or special districts.

The following uses and developments may be permitted in an open space hazard (OH) district pursuant to a conditional use permit:

- Comfort stations;

- Maintenance buildings;

- Limited outdoor active recreational uses which do not involve permanent structures or significant alterations to the existing topography and which do not involve golf courses, driving ranges and related ancillary uses; and

- Additional facilities, as long as such facilities are not permanent, are clearly accessory and subordinate to the primary use, will not alter the nature of, and are limited to, those facilities necessary for utilization of the open space land.

Program of Utilization

The approximately 64.9-acre UPVA is a part of a larger 75.53-acre parcel transferred to the City of Rancho Palos Verdes in October 1979 by the United States Department of the Interior, National Park Service, carrying a deed restriction requiring use "for public park and public recreation area purposes".[8] The Deed required a Program of Utilization (POU) for the transferred property. The POU provides for the development of both active and passive recreational uses on the property. The recreational uses identified in the POU are detailed in Table 5.7-1, *Program of Utilization*, and illustrated in Exhibit 5.7-4, *Program of Utilization Conceptual Plan*.

The Deed (Page 7) notes the following with respect to use of the property:

> *"This property shall be used and maintained for the public purposes for which it was conveyed in perpetuity as set forth in the Program of Utilization and plan contained in the application. . . which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, ..."*
>
> *". . nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior."*

The 3.9-acre property owned by the U.S. Coast Guard is not a part of the proposed Project.

IMPACTS

Significance Criteria

Pursuant to Appendix G, Environmental Checklist of the CEQA Guidelines, a project would normally have a significant impact on land use and planning if it results in any of the following:

[8] Quitclaim Deed, October 30, 1979, Exhibit A, Page 1.

TABLE 5.7-1
PROGRAM OF UTILIZATION

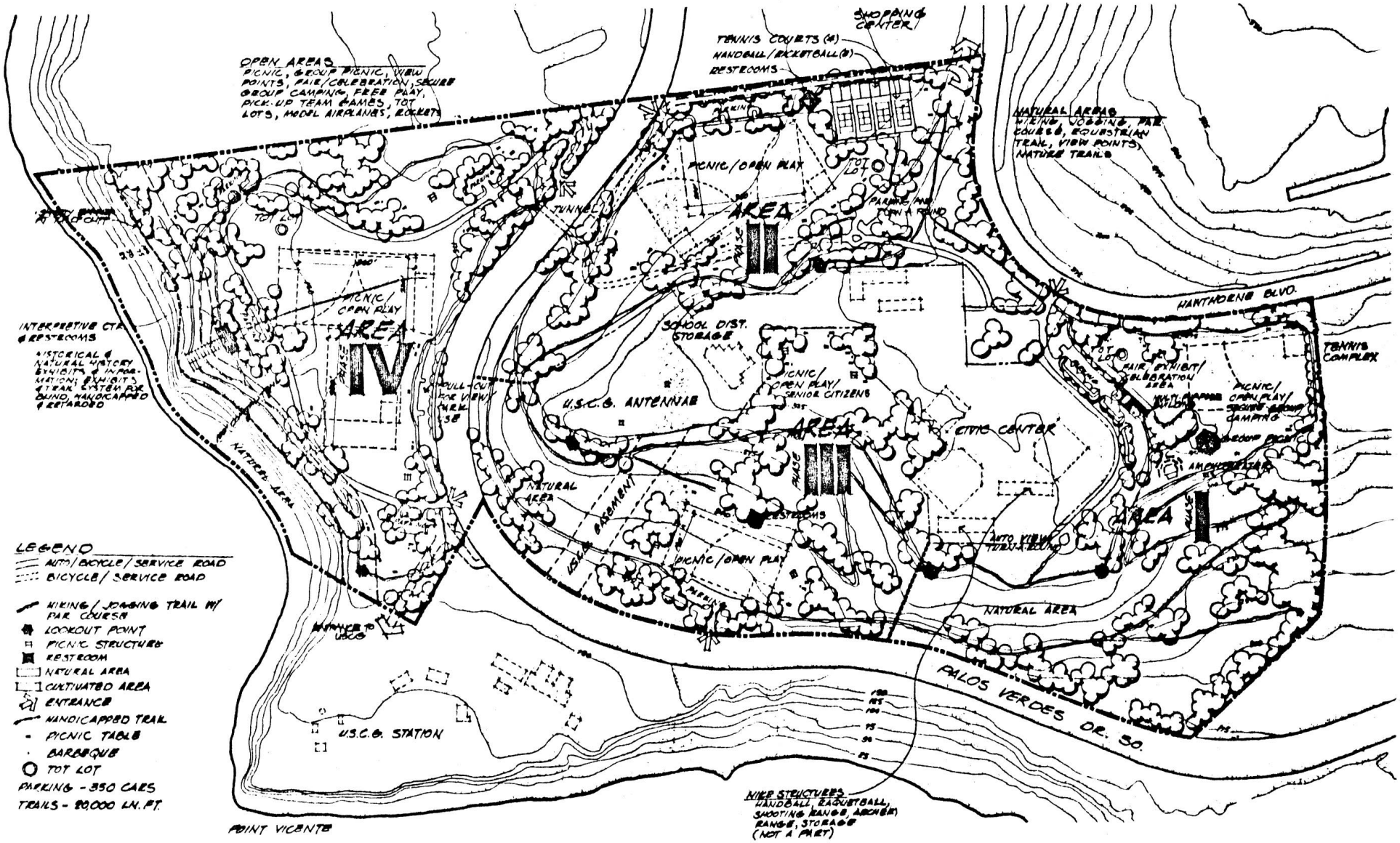
Phase	Proposed Improvement
I	Lookout points; Picnic areas & structures, tables and barbeques; Restrooms; Natural areas; Tennis courts; Handball/racquetball courts; Picnic/open play areas; Senior Citizen's Center; Playgrounds; Bicycle/service roads; Baseball diamonds; Tot lots; Natural areas; Parking; Fair exhibit/celebration areas; Amphitheater; Multi-purpose Building; Camping areas; Auto View Turn-A- Round; Hiking/jogging trail with par course.
II	Picnic/open play; Tennis courts; Handball/racket ball courts; Shopping center; Natural areas; Tot lot; Parking and turn-a-round; School District storage; Lookout points; Baseball diamonds; Auto/bicycle/service roads; picnic structures, tables, and barbeques; Hiking/jogging trail with par course.
III	Picnic/open play areas; Parking; Restrooms; Picnic/open play areas; Senior citizens areas; Civic Center; Lookout points; Baseball diamonds; Auto/bicycle/service roads; Bicycle/service road; Hiking/jogging trail with par course; picnic structures, tables, and barbeques.
Total[1, 2]	Parking(350) cars Trails - 20,000 linear feet.

Source: Schematic Plan/Park Study, January 1979.

Notes:

A. Schematic Plan depicts a handball/racquetball court, shooting range, archery range at the Nike structure areas which were not a part of the Park Study, however, are a part of the proposed Project site.

B. Section IV of the Schematic Plan is located on the Lower Point Vicente Area (off-site) and is proposed to include the following: Picnic/open play area; Tot lot; Parking; Pull out areas for viewing; Natural areas; Interpretive Center; Restrooms; Historical and natural history exhibits and information; Exhibit and trail system for blind and/or handicapped individuals; Lookout points; Baseball diamonds; picnic structures, tables, and barbeques; Auto/bicycle/service roads.



NOT TO SCALE

SOURCE: PERIDIAN GROUP

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LONG POINT RESORT EIR

Program of Utilization Conceptual Plan

Exhibit 5.7-4

A significant impact would occur if the project would . . .

- Physically divide an established community (refer to Impact Statement 5.7-1);

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purposes of avoiding or mitigating an environmental effect (refer to Impact Statements 5.7-1, 5.7-2 and 5.7-3); and

- Conflicts with any applicable habitat conservation plan or natural community conservation plan (refer to Section 5.3, *Biological Resources*, for a discussion on this issue).

ESTABLISHED COMMUNITY

5.7-1 *Implementation of the proposed Project may physically divide an established community. Analysis has concluded that a less than significant impact would occur.*

The Project area is traversed by two major roadways, Palos Verdes Drive South and Hawthorne Boulevard. These roadways, as well as the spacial separation caused by local topography, create “pockets” of development which function independent of one another. Specifically, the Sea Bluff residences and other residential areas situated east of the RHA, function independent of the the Villa Capri Condominiums and the single-family residential neighborhoods situated east of Palos Verdes Drive South and north of Hawthorne Boulevard. Further, there is no anticipated functional relationship between the proposed CPH residential development (situated northwest of the UPVA) and the existing residential neighborhoods in the Project area. Similarly, the functional relationships between the commercial, institutional and recreational uses existing in the Project area and the existing residential uses would not be adversely affected through Project implementation. Rather, access between these uses would be enhanced by implementation of the Project’s proposed 11.4-mile network of new public bicycle and pedestrian trails. Improved access throughout the Project area is considered a beneficial impact of Project implementation. Overall, implementation of the proposed Long Point Resort Project would not physically divide an established community, hence, would not result in a significant land use impact in this regard.

RANCHO PALOS VERDES GENERAL PLAN

5.7-2 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes General Plan. Analysis has concluded that a less than significant impact would occur with approval of a General Plan Amendment on the UPVA changing the land use designation from Recreational Passive to Recreational Active.*

The City of Rancho Palos Verdes General Plan contains elements mandated by the State. The consistency of the proposed Long Point Resort Project with the applicable goals and policies of each General Plan Element is provided in Table 5.7-2, *General Plan Consistency Analysis*. As is detailed in Table 5.7-2, the proposed Project is considered consistent with all of the applicable goals and policies in the General Plan.

The General Plan contains recommendations for development which pertain to the Project areas (refer to the *Existing Conditions* discussion). The following analysis evaluates the Project's compliance with these recommendations:

Natural Environment Element. Refer to Section 5.3, *Biological Resources*, Section 5.5, *Geology, Soils and Seismicity*, Section 5.6, *Hydrology and Drainage*, and Section 5.8, *Marine Resources*, for a discussion of impacts associated with each of the Resource Management Districts. As part of the Plan Review process, the proposed Project would be required to demonstrate compliance with the specific development criteria established for each District. The proposed Project would result in a less than significant impact following compliance with the criteria.

Socio/Cultural Element. Refer to Section 5.4, *Cultural Resources*, for a discussion of impacts associated with cultural resources.

Urban Environment Element. As previously noted, this Element identifies areas set aside in the City for a structured use.

Upper Point Vicente Area

- Designated Recreational Activity area: The Project proposes development of recreational uses in this area, therefore, would be consistent with the designated use;

- Incorporate active recreational facilities at lower Nike Site: The Project proposes that the overall use of the UPVA be a golf course which is an active recreational use. Therefore, the proposed Project would be considered consistent with this recommendation; and

- Nike Site designated for park purposes: The Project proposes the development of passive parkland (a total of 2.2 acres of passive parkland), pedestrian trails and scenic view points in the UPVA, as well as a golf course

and practice facility. Therefore, the proposed Project would be considered consistent with this recommendation.

Resort Hotel Area

- Designated Commercial Recreational: The proposed resort hotel, golf course, clubhouse, and recreational activities included within the RHA are of a commercial nature. Therefore, the proposed Project would be considered consistent with this recommendation.

- Expansion of Marineland: This recommendation is no longer applicable since Marineland no longer operates on the RHA. However, it should be noted that the proposed Project is considered a less intensive land use than Marineland. Therefore, Project implementation would not conflict with this recommendation.

- Additional Limited Scale Commercial Recreational Uses: The potential for various uses throughout the City, including golf and other recreational activities, was identified in the General Plan. The proposed development would be consistent with this recommendation.

Land Use Plan.

Resort Hotel Area

- Commercial Recreational: At the time of preparation of the General Plan, the Commercial Recreational activity in Rancho Palos Verdes consisted of the Marineland site. The proposed resort hotel, golf course, clubhouse, and recreational activities included within the RHA are of a commercial nature. Therefore, the proposed Project would be considered consistent with this designation.

- Urban Activities Overlay Control District: Impacts associated with the aesthetic and scenic qualities bordering Palos Verdes Drive South and intended for protection with this District are addressed in Section 5.1, *Aesthetics/Light and Glare.*

- Socio/Cultural Overlay Control District: Impacts associated with cultural resources located within the RHA and intended for protection with this District are addressed in Section 5.4, *Cultural Resources*.

- Specific Plan District: Refer to the *Coastal Specific Plan* discussion below for a discussion of impacts associated with this District.

Upper Point Vicente Area

- Recreational Passive: The proposed Project involves the development of both active and passive recreational uses on the UPVA. The proposed passive recreational uses, including pedestrian trails, scenic view points, and picnic area, would be consistent with this land use designation (refer to Section 5.13, *Recreation*, for further details regarding proposed recreational uses). However, a golf course is defined in the General Plan as an active recreational use. Therefore, development of the proposed golf course and practice facility on the UPVA would not be considered consistent with this land use designation. As a result, a General Plan Amendment changing the existing Recreational Passive designation to Recreational Active would be required. With approval of the General Plan Amendment, this impact would be considered as less than significant.

- Institutional Public: As previously noted, the Land Use Plan considers recreational uses as generally compatible with institutional uses, often forming part of such uses. Therefore, development of the proposed recreational uses on the UPVA would be considered consistent with this land use designation.

- Natural Overlay Control District: Impacts associated with geologic, biologic, and hydrologic features located near the UPVA's southeastern corner and intended for protection within this District are addressed in Section 5.5, *Geology, Soils and Seismicity*, Section 5.3, *Biological Resources*, and Section 5.6, *Hydrology and Drainage*, respectively.

As is evidenced by the analysis in this Section, implementation of the proposed Project would not conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes General Plan, with the exception of the golf course use which would conflict with the Recreational Passive designation on the UPVA. This impact would be considered as less than significant with approval of a General Plan Amendment.

COASTAL SPECIFIC PLAN

5.7-3 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Coastal Specific Plan. Analysis has concluded that a less than significant impact would occur with approval of a Conditional Use Permit.*

The consistency of the proposed Long Point Resort Project with the applicable goals and policies of the Coastal Specific Plan is provided in Table 5.7-3, *Coastal Specific Plan Consistency Analysis*. As is detailed in Table 5.7-3, the proposed Project is considered consistent with all of the applicable goals and policies in the Coastal Specific Plan.

The Coastal Specific Plan contains recommendations for development which pertain to the RHA (refer to the *Existing Conditions* discussion). The following analysis evaluate's the Project's compliance with these recommendations:

Commercial Recreational. The proposed resort hotel, golf course, clubhouse, and recreational activities included within the RHA are of a commercial nature. Therefore, the proposed Project would be considered consistent with this designation.

This land use designation identifies compatible uses including those of a commercial recreational nature, visitor-oriented, retail facilities, recreation uses, motel, convention facility, and restaurants, as compatible uses. The proposed resort hotel, golf course, clubhouse, and recreational facilities would be considered consistent with this recommendation. However, the proposed Project would necessitate approval of a Conditional Use Permit (CUP) consistent with the CSP requirement that a CUP be obtained for "any future development on the site".

The criteria of concern (i.e., visual, noise, and natural environment) for development within this land use designation are addressed in Section 5.1, *Aesthetics/Light and Glare*, Section 5.9, *Noise*, and Section 5.3, *Biological Resources*.

Agricultural. Although maintaining Agricultural Activity on the eastern portion of the RHA was identified as a "primary effort" in the CSP, development of the proposed golf course and resort hotel would be considered consistent with this land use designation based on the following:

- The CSP noted that the City would need to add an Agricultural District to its Development Code and apply it to the eastern portion of the RHA in order to maintain the Agricultural activity. An Agricultural District has not been added to the City's Development Code. Further, all of the RHA is designated Commercial Recreational District.

- The CSP recommends a secondary use of Commercial Recreation as proposed by the General Plan. Thus, transition of the eastern portion of the RHA to CR uses via a CUP was contemplated by the CSP.

  The concerns raised in the CSP regarding developing the eastern portion of the site under a Commercial Recreational use (i.e., primary access, adjoining residential, and visual) are addressed in Section 5.12, *Traffic and Circulation*, Section 5.1, *Aesthetics/Light and Glare*, and Section 5.9, *Noise*.

- Recreation - Bluff Access: The Project proposes to retain and improve the shore access point situated at the southeastern corner of the RHA. Therefore, the proposed Project would be consistent with this designation.

- Recreation - Parking: The Project proposes a one-acre expansion to the existing Point Vicente Fishing Access which would be considered consistent with this designation. The expansion would include an additional 50 spaces, including additional parking for the existing Fishing Access, as well as parking for the Project's proposed Bluff Top Park. Additionally, it should be noted that 50 additional spaces are proposed at PA 2-D (Resort Coastal Access Parking Area).

- Natural Overlay Control District: The Project proposes that the western portion of the bluff-top area be preserved as a Habitat Reserve (PA1-B). The eastern portion of the bluff-top area is proposed for development of pedestrian trails, however, no structures. Therefore, the proposed Project would be consistent with this designation.

- Urban Activities Overlay Control District: The RHA in its entirety is designated with this District. Impacts associated with recreational and aesthetic qualities are addressed in Section 5.13, *Recreation*, and Section 5.1, *Aesthetics/Light and Glare,* respectively.

- Socio/Cultural Overlay Control District: The RHA in its entirety is designated with this District. This District is intended to preserve, protect, and maintain land and water areas and improvements which have significant historical, archaeological or cultural importance to the public. Refer to Section 5.4, *Cultural Resources*, for a discussion of impacts associated with cultural resources.

Based on the data provided above, implementation of the proposed Project would not conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Coastal Specific Plan. However, the proposed Project would require approval of a Conditional Use Permit consistent with the CSP requirement. Impacts would be considered as less than significant with approval of a CUP.

DEVELOPMENT CODE/ZONING ORDINANCE

5.7-4 *The proposed Project may conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Development Code/Zoning Ordinance. Analysis has concluded that a less than significant impact would occur with approval of a Conditional Use Permit.*

The City of Rancho Palos Verdes Zoning Ordinance, Title 17 of the Municipal Code, identifies land uses permitted and prohibited according to the zoning category of

particular parcels (refer to the *Existing Conditions* discussion). The following analysis evaluate's the Project's compliance with these categories:

Upper Point Vicente Area

- Open Space Recreational District (OR) (Section 17.34): The pedestrian trails, scenic view points, and public park areas proposed in the UPVA are uses permitted within this District. The proposed golf course, driving range and related ancillary uses may be constructed within this district by Conditional Use Permit. The proposed Project would be in compliance with this category upon issuance of a CUP.

  As part of the Plan Review process, the proposed Project would be required to demonstrate compliance with the specified development standards for the OR District regarding lot size, building height, lot coverage and parking. The proposed Project would result in a less than significant impact after compliance with the specified standards.

- Institutional District (I) (Section 17.26 Article III): As an outdoor active recreational use, the proposed golf course may be constructed within this district by Conditional Use Permit. The proposed Project would be in compliance with this category upon issuance of a CUP.

  As part of the Plan Review process, the proposed Project would be required to demonstrate compliance with the specified development standards for the I District (refer to the *Existing Conditions* discussion). The proposed Project would result in a less than significant impact after compliance with the specified standards.

Resort Hotel Area

- Commercial Recreational District (CR) (Section 17.22): The proposed resort/conference hotel, and golf course proposed in the RHA may be constructed within this district with Conditional Use Permit. The proposed Project would be in compliance with this category upon issuance of a CUP.

  Since the proposed resort hotel would be located within the Coastal Specific Plan District, it would be required to provide public access to and along the bluff. The Project proposes two shore access points and a coastal access trail. Additionally, the Project proposes the Long Point Trail which is situated along the bluff. Therefore, the proposed Project would be in compliance with these requirements.

  As part of the Plan Review process, the proposed Project would be required to demonstrate compliance with the specified development standards for the CR District regarding lot area, landscaping, design, and height. The

proposed Project would result in a less than significant impact after compliance with the specified standards.

- Open Space-Hazard District (OH) (Section 17.32 Article IV): The Project does not propose the development of permanent structures within this District, although, the development of pedestrian trails is proposed. Pedestrian trails would be considered a limited recreational use which would be permitted in this District, provided, that the applicable Natural Overlay Control District (OC-1) performance criteria are satisfied.

Based on the analysis provided in this Section, implementation of the proposed Project would not conflict with the land use plan, policies and regulations of the City of Rancho Palos Verdes Development Code. However, the proposed Project would require approval of Conditional Use Permits: for development of the proposed golf course, driving range and related ancillary uses in the OR District of the UPVA; for development of the proposed golf course in the I District of the UPVA; and for development of the proposed resort/conference hotel, and golf course proposed in the CR District of the RHA. Therefore, Project implementation would not result in a significant impact with respect to compliance with the Development Code.

PROGRAM OF UTILIZATION

5.7-5 *Development of the Upper Point Vicente Area may conflict with the Program of Utilization. Analysis has concluded that a less than significant impact would occur in this regard provided written concurrence is obtained from the Secretary of the Interior.*

As detailed in Section 5.13, *Recreation*, (Impacts Statements 5.13-2 and 5.13-4), the proposed Project would involve development of new public recreational facilities and linkages in addition to a public-play 9-hole regulation-length golf course and a practice facility. The Project's proposed recreational facilities include both active and passive recreational uses, some of which are established in the POU for the UPVA. Based on the POU detailed in Table 5.7-1, *Program of Utilization*, and illustrated Exhibit 5.7-4, *Program of Utilization Conceptual Plan*, the recreational uses proposed by the Project which are considered generally consistent with the POU include the following:

- Hiking/Jogging Trails. The Project proposes the development of pedestrian trails in the UPVA;

- Lookout Points. The Project proposes five scenic view points in the RHA;

- Picnic Areas & Open Play Areas. The Project proposes these recreational uses at two locations the City Hall Park Expansion

(Planning Area 2-F) and the Point Vicente Overlook (Planning Area 2-G); and

- Natural Areas. The Project proposes approximately 24.9-acres to be conserved, enhanced and created as Coastal Sage Scrub habitat (Upper Point Vicente Area Coastal Sage Scrub Habitat (PA 1-B)) in the UPVA.

All of these proposed recreational facilities would be designated for public use. This would be consistent with the Deed requirement that the UPVA be maintained for public purposes. In addition, the proposed golf course and practice facility would be available for use by the resort hotel guests, residents and visitors.

The Project proposes that the UPVA be developed primarily with a golf course. This would be considered inconsistent with the POU since a golf course was not an identified recreational use in the POU. Further, the Deed established the requirement that the property be used and maintained for the public purposes for which it was conveyed as set forth in the POU. This inconsistency would be considered a significant impact unless mitigated. However, as the Deed further authorized amendments to the POU provided written concurrence was obtained from the Secretary of the Interior, mitigation requiring that this approval be obtained prior to Project implementation would reduce impacts to less than significant levels.

CUMULATIVE

5.7-6 *The proposed Project, combined with other future development, may increase the intensity of land uses in the area. Analysis has concluded that impacts are less than significant and no mitigation is required. Projects are evaluated on a project-by-project basis in accordance with the City of Rancho Palos Verdes General Plan, Coastal Specific Plan and Development Code.*

Development of the site as proposed would not result in any cumulative land use impacts as other projects are implemented citywide. Each new project would undergo the same project review process as the proposed Project in order to preclude potential land use compatibility issues and planning policy conflicts. It is assumed that cumulative development would progress in accordance with the City's General Plan, Coastal Specific Plan and the Development Code. Each project would be analyzed independent of other land uses, as well as within the context of existing and planned developments to ensure that the goals, objectives and policies of the General and Coastal Specific Plans are consistently upheld.

MITIGATION MEASURES

This section directly corresponds to the identified impact statements in the impacts subsection.

ESTABLISHED COMMUNITY

5.7-1 No mitigation measures are required.

GENERAL PLAN

5.7-2 No mitigation measures are required.

COASTAL SPECIFIC PLAN

5.7-3 No mitigation measures are required.

DEVELOPMENT CODE/ZONING ORDINANCE

5.7-4 No mitigation measures are required.

PROGRAM OF UTILIZATION

5.7-5 An Amendment to the Program of Utilization shall be prepared to concur with the uses proposed for the UPVA by the Long Point Resort Project. Approval of the Amendment to the POU shall be obtained in writing from the Department of the Interior prior to Grading Permit Issuance.

CUMULATIVE

5.7-6 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Based upon the analysis pertaining to consistency with relevant planning policies and cumulative impacts, no impacts have been identified and no mitigation measures are required.

TABLE 5.7-2
GENERAL PLAN CONSISTENCY ANALYSIS

Applicable General Plan Goal/Objective	Project Consistency Discussion
NATURAL ENVIRONMENT ELEMENT	
P #1[9]: Permit development within the Sea Cliff Erosion Area (RM 1) only if demonstrated, through detailed geologic analysis, that the design and setbacks are adequate to insure public safety and to maintain physical, biologic, and scenic resources. Due to the sensitive nature of RM 1, this area is included as an integral part of a Specific Plan District and should be more fully defined.	**Consistent:** Portions of the RHA are designated Sea Cliff Erosion Area (RM 1). However, the Project does not propose development of a structure within this area. As illustrated on Exhibit 5.3-5, the majority of this RM 1 area is a proposed Bluff/Beach Habitat Reserve.
P #2: Allow only low intensity activities within Resource Management Districts of Extreme Slopes (RM 2).	**Consistent:** A small portion of the RHA located immediately northeast of the existing westerly coastal access ramp is designated within RM's 2, 3, 5, 6, 7, 8, and 9. The Project does not propose the development of any structure or activity within this area.
P #3: Require any development within the Resource Management Districts of high slopes (RM3) and old landslide area (RM5) to perform at least one, and preferably two, independent engineering studies concerning the geo-technical, soils and other stability factors (including seismic considerations) affecting the site.	**Consistent:** Refer to Response P #2. Also, refer to Section 5.5, *Geology, Soils and Seismicity*, for a discussion of geology, soils and seismicity.
P #4 Allow no further development involving any human occupancy within the active landslide area (RM 4).	**Consistent:** The proposed Project is not within the active landslide area. Also, refer to Response P #2.
P #5 Develop, as part of any specific area planning study, a more detailed definition of the limits and composition of any RMD's related to Health and Safety, with particular reference to the active/old landslide areas, the sea cliff erosion setback, and critical extreme slope areas.	**Consistent:** The geotechnical analysis has concluded that with mitigation a less than significant impact would occur in this regard. Also, refer to Response P #2.
P #7 Prohibits activities which create excessive silt, pollutant runoff, increase canyon-wall erosion, or potential for landslide, within Resource Management districts containing Hydrologic Factors (RM 6).	**Consistent:** The geotechnical and hydrological analyses have concluded that, with mitigation, a less than significant impact would occur in this regard. Also, refer to Response P #2.

[9] P # = Policy Number, OP # = Overall Policy Number

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #8 Encourage establishment of the rocky intertidal areas as a marine reserve and strict enforcement be applied to all regulations concerning marine resources (Resource Management Districts containing marine Resources [RM 7]).	**Consistent:** The portion of the RHA designated RM 7 is not proposed for development of a structure or activity. As illustrated on Exhibit 5.3-5, a Bluff/Beach Habitat Reserve is proposed within the RHA. Also, refer to Response P #2.
P #9 Encourage developments within or adjacent to wildlife habitats (RM 8) to describe the nature of the impact upon the wildlife habitat and provide mitigation measures to fully offset the impact.	**Consistent:** Impacts to wildlife habit are in addressed in Section 5.3, *Biological Resources.* Analysis has concluded that, with mitigation, a less than significant impact would occur in this regard. Also, refer to Response P #2.
P #10 Encourage developments within Resource Management Districts containing Natural Vegetation (RM 9) to revegetate with native material wherever clearing of vegetation is required.	**Consistent:** As illustrated in Exhibit 5.3-1, the portion of the RHA designated RM 9 contains disturbed vegetation.
P #11 Stringently regulate irrigation, natural drainage, and other water-related considerations, both new development and existing uses, affecting existing or potential slide areas.	**Consistent:** A Runoff Management Plan/Water Quality Management Plan was prepared for the proposed Project. This Plan is subject to review and approval by the City Public Works Director.
P #14 Maintain the existing natural vegetation of the City in its natural state to the maximum extent possible in all existing and proposed developments, to the extent commensurate with good fire protection policies, and encourage the re-establishment of appropriate native plants.	**Consistent:** The Long Point Habitat and Conservation Program (LPHCP) which was prepared for the proposed Project contains habitat restoration and enhancement design concepts. The LPHCP would result in the protection and creation of a total of 39.74 acres of coastal sage scrub, coastal bluff scrub, and rocky shore habitat.
P 15# Require a master landscape plan for any proposed development showing the retention/ enhancement of natural vegetation proposed, new complementing vegetation, and all efforts involving retention/enhancement/protection of hydrologic factors, vegetation, and wildlife factors.	**Consistent:** Specific details of the LPHCP including design concepts and plant palettes, are discussed in the Long Point Resort Permit Documentation (FORMA 2000) available for review at the Rancho Palos Verdes City Hall. A revegetation program is proposed in accordance with the landscape palette developed for the LPHCP.
P #16 Require all projects with any natural resource management district factors falling within their project boundaries to deal with these areas in detail in an Environmental Impact Report.	**Consistent:** The environmental issue areas relevant to the natural resource management districts which fall within the Project's boundaries are addressed in this Environmental Impact Report (refer to Sections 5.1 through 5.13).
OP #4 Consider in more detail natural environment factors in subsequent specific area studies as an integral part of these studies.	**Consistent:** The natural environment factors relevant to the Project site were considered in Sections 5.1 through 5.13.

Applicable General Plan Goal/Objective	Project Consistency Discussion
OP #7 Encourage study of and funding to preserve unusual flora and fauna.	**Consistent:** The Biological Technical Report conducted for the Project identifies the flora and fauna found present on the site and provides an analysis of impacts resulting from Project implementation (refer to Section 5.3, *Biological Resources*).
SOCIO/CULTURAL ELEMENT III - ARCHEOLOGY	
P #2 Encourage the identification of archaeologically sensitive areas and sites.	**Consistent:** The Cultural Resources Report conducted for the Project identifies the archaeologically sensitive areas on the site and provides an analysis of impacts resulting from Project implementation (refer to Section 5.4, *Cultural Resources*).
P #3 Require all projects for new construction, subdivision, conditional use permits, and variances, that occur in archaeologically sensitive areas to have a special archaeological component in their Environmental Impact Reports.	**Consistent:** Section 5.4, *Cultural Resources*, is the archaeological component contained within this Environmental Impact Report.
P #4 Forward Environmental Impact Reports to the University of California at Los Angeles, the Society for California Archaeology's (SCA) clearinghouse for this area, and to California State College at Dominguez Hills.	**Consistent:** The University of California at Los Angeles (UCLA) has been replaced by the California State University, Fullerton (CSUF) as the clearinghouse for the SCA. The findings of the Cultural Resources Report shall be filed at CSUF.
P #5 Allow salvage excavation of the site, where some technique of preservation cannot be implemented.	**Consistent:** Mitigation measures have been included in Section 5.4 which would allow for salvage excavation of a cultural resource in the event it is discovered.
SOCIO/CULTURAL ELEMENT III - GENERAL	
P #3 Encourage the building of meeting facilities by private or nonprofit groups. Existing and new businesses, churches, utilities, etc., should be encouraged to allow some use of their facilities by community groups.	**Consistent:** The proposed resort hotel facilities would include approximately 68,000 square feet of ballroom, banquet, meeting, community, prefunction, foyer, flow, convenience services and retail sales space. This space would be made available for conferences, social occasions, and community and public events.
URBAN ENVIRONMENT ELEMENT IV -- HOUSING	
P #10 Require all developments which propose open space to be held in private ownership to provide legal guarantees to protect these areas from further development.	**Consistent:** This issue would be addressed in the future development agreement between the City and Project Applicant.
P #11 Control the alteration of natural terrain.	**Consistent:** The Grading Plans proposed for the Project sites would be subject to review and approval by the City's Public Works Director.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #13 Require proposals for development of areas which impact corridor related views to analyze the site conditions and address the preservation of such views.	**Consistent:** Section 5.1, *Aesthetics/Light and Glare*, identifies corridor related views and evaluates impacts resulting from Project implementation. Analysis has concluded that a less than significant impact would occur in this regard.
P #14 Prohibit encroachment on existing scenic views reasonably expected by neighboring residents.	**Consistent:** Section 5.1, *Aesthetics/Light and Glare*, identifies existing scenic views and evaluates impacts resulting from Project implementation. Analysis has concluded that a less than significant impact would occur in this regard.
P #15 Enforce height controls to further lessen the possibility for view obstructions.	**Consistent:** Implementation of the proposed Project would be required to be in compliance with Development Code Sections 17.34.B, 17.26.B, 17.22.D with respect to height restrictions.
P #18 Allow no further development involving any human occupancy within the active landslide area.	**Consistent:** The proposed Project is not within the active landslide area. Further, the Project does not propose development of a structure for human occupancy within the portions of the RHA containing the five relatively minor landslides or the landslide postulated within the UPVA (refer to Exhibits 5.5-2 and 5.5-3).
P #2 Require the commercial activity, where a commercial area would be nonconforming with adjoining activities, to provide the necessary mitigating measures, including landscaping, etc.	**Consistent:** Mitigation measures specified in Sections 5.1 through 5.13 reduce potential impacts associated with land uses adjoining the Project site to a less than significant level.
P #3 Make special efforts to ensure safe conditions on ingress and egress routes to commercial areas for both pedestrians and vehicles.	**Consistent:** Section 5.12, *Traffic and Circulation*, provides an analysis of ingress and egress routes associated with the proposed Project. Analysis has concluded that a less than significant impact would occur in this regard. Design of the proposed pedestrian trails would be subject to review and approval by the City Public Works Department.
P #4 Require that scenic view disruption by commercial activities be taken into account not only in the physical design of structures and signs, but also in night lighting of exterior grounds.	**Consistent:** Section 5.1, *Aesthetics/Light and Glare*, addresses potential impacts associated with existing scenic views and night lighting. Analysis has concluded that, with mitigation, a less than significant impact would occur in this regard.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #5 Require commercial sites to limit the exposure of parking and exterior service areas from the view of adjoining sites and circulation routes.	**Consistent:** The RHA would provide a total of 825 on-site parking spaces including approximately 30% of the total provided for valet use in two-levels of subterranean parking. While portions of the proposed surface parking may be visible from the adjoining sites and circulation routes, analysis has concluded that a less than significant impact would occur in this regard (refer to Section 5.1).
P #6 Study parking areas as to the degree of use for the total area. Where a portion of the parking area is determined to only serve short-term seasonal demands, alternative surface treatments, such as grass, should be employed.	**Consistent:** The proposed Project would provide a total of 825 on-site parking spaces. Analysis has concluded that this is an adequate amount to meet the overall parking demand for hotel guests and employees of the Long Point Resort (refer to Section 5.12, *Traffic and Circulation*).
P #7 Require adequate provisions be incorporated into commercial site design to reduce negative impacts on adjoining residential areas.	**Consistent:** Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to visual and noise impacts on adjoining residential areas (refer to Sections 5.1 and 5.9, respectively).
URBAN ENVIRONMENT ELEMENT IV -- RECREATIONAL ACTIVITY	
P #1 Provide access to all public recreational land.	**Consistent:** All of Project's proposed recreational facilities would be designated for public use, including the golf course and practice facility. The Project proposes two shore access points, a coastal access trail, and other trails, consistent with the coastal specific plan.
P #6 Encourage land holders to contribute lands to the City for recreational use.	**Consistent:** Portions of the RHA (i.e., public parks, parking, and trails) would be contributed to the City for recreational use.
P #8 Encourage local citizens groups to participate in the planning, development, and maintenance of recreation facilities to the extent possible.	**Consistent:** The public would be able to participate in planning/development of the proposed recreational facilities as part of the Public Scoping Meeting and CEQA required Public Review Period.
URBAN ENVIRONMENT ELEMENT IV -- AGRICULTURAL ACTIVITY	
P #1 Encourage implementation techniques for preservation of agricultural activities.	**Consistent:** While implementation of the proposed Project would remove the approximately nine acres of agricultural uses which exist on the UPVA, the Project would not result in any conflicts with existing zoning for agricultural use.
P #2 Assist in the protection or conservation of agricultural sites.	**Consistent:** Refer to Response No. P #1.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #3 Encourage continued operation of existing produce and flower stands, not necessarily in present locations and structural types, but in concept, related to local agricultural use.	**Consistent:** Produce or flower stands are not presently located on the Project site.
P #4 Preserve flower farming wherever possible, in order to provide aesthetic appeal and visual accent.	**Consistent:** Flower farming is not presently located on the Project site.
INFRASTRUCTURE	
P #2 Prohibit the extension of any infrastructural component into any area known to be unstable or of major environmental significance.	**Consistent:** As illustrated in Exhibit 5.5-1, *RHA Geologic Map*, Exhibit 5.5-2, *UPVA Geologic Map*, Exhibit 5.11-1, *RHA Infrastructure Plan*, and Exhibit 5.11-2, *UPVA Infrastructure Plan*, the proposed Project does not involve the extension of any infrastructural component into any area known to be unstable or of major environmental significance with one exception. A sewer line is proposed southwest of the intersection of the proposed Long Point Trail and the trail segment which connects with the Lower Pool. This proposed sewer line would be located near one of the five minor landslides identified in the RHA. Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to landslides.
P #4 Underground all new power lines and communications cables and implement programs to place existing lines and cables underground.	**Consistent:** The proposed Project would comply with Development Code Section 17.54.020 which requires that "all utility lines installed to serve new construction be placed underground . . . .."
P #7 Allow new development to only occur where adequate infrastructure systems reasonably can be provided.	**Consistent:** Analysis has concluded that a less than significant impact would occur with respect to the provision of adequate public utilities (refer to Section 5.11, *Public Services and Utilities*).
P #8 Require adequate landscaping or buffering techniques for all new and existing facilities and networks, in order to reduce the visual impact of many infrastructure facilities and networks.	**Consistent:** Landscaping in the Palos Verdes Drive Median would be required as part of the proposed Project.

Applicable General Plan Goal/Objective	Project Consistency Discussion
INFRASTRUCTURE -- RESOURCE SYSTEMS: WATER	
P #1 Cooperate with California Water Service Company and the Los Angeles County Fire Department to improve water service (pressure and flow) in areas of inadequate service.	**Consistent:** According to the CWSC, an insufficient water storage capacity exists in the western portion of the peninsula. Therefore, a storage tank is required in the Project vicinity. Payment by the Applicant of their fair share portion of the funding associated with the tank would reduce the Project's impact to a less than significant level.
P #2 Encourage the investigation and use of alternative water and energy sources.	**Consistent:** Water conservation measures are proposed by the Applicant including the installation of low volume toilets, water saver showers, and energy conservation fixtures. Where appropriate, drought-tolerant trees and shrubs, and low-water-requirement lawns would be installed on the Project site.
INFRASTRUCTURE -- DISPOSAL/RECOVERY SYSTEMS	
P #2 Require sanitary sewers in all major new developments.	**Consistent:** Project implementation would generate additional wastewater beyond current conditions, thus requiring an incremental expansion of the existing sewerage system. With payment of appropriate connection fees, impacts to wastewater systems and facilities would be considered as less than significant.
P #3 Encourage the retention of all remaining natural watercourses in their natural state.	**Consistent:** One blue line stream exists in the southeastern portion of the RHA. Mitigation has been specified which requires redesign of the Project's proposed site Plan to avoid impacts to this watercourse.
P #4 Require developers to install necessary flood control devices in order to mitigate down-stream flood hazard induced by proposed upstream developments.	**Consistent:** No flood hazards exist or would occur. Typical engineering/drainage controls would mitigate downstream effects.
P #5 Require that all flood control/natural water-source interfaces and systems be treated so that erosion will be held to a minimum.	**Consistent:** Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to erosion (refer to Section 5.6, *Hydrology and Drainage*).
P #6 Encourage the investigation of methods to reduce pollution impacts generated by development runoff.	**Consistent:** Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to pollution associated with runoff (refer to Section 5.6, *Hydrology and Drainage*).

Applicable General Plan Goal/Objective	Project Consistency Discussion
INFRASTRUCTURE -- CABLE TRANSMISSION SYSTEMS	
P #2 Encourage the underground installation of cable communication network in all new developments.	**Consistent:** The proposed Project would comply with Development Code Section 17.54.020 which requires that "all utility lines installed to serve new construction be placed underground . . . .."
INFRASTRUCTURE -- TRANSPORTATION SYSTEMS	
P #2 Require any new developments with new streets to provide adequate right-of-way widths for possible future needs to provide for traffic patterns necessary to accommodate future growth needs.	**Consistent:** The proposed Project does not involve the development of new streets.
P #6 Design path and trail networks to reflect both a local and regional demand, while maintaining the unique character of the Peninsula.	**Consistent:** The Project's proposed trails network would be consistent with the policies and recommendations identified in the General Plan, Coastal Specific Plan, and the City's Conceptual Trails Plan.
P #7 Require, wherever practical, all path and trail networks to be in separate rights-of-way.	**Consistent:** The Project proposes development of the Marineland Trail, a joint-use trail which would run along the ocean side of Palos Verdes Drive South, within the RHA.
P #9 Prohibit motorized vehicles from using designated paths and trails, except in the case of emergency or maintenance vehicles.	**Consistent:** The proposed Project does not involve the development of trails for motorized vehicles.
P #10 Require that all new developments establish walkway, bikeway and equestrian systems, where appropriate.	**Consistent:** The proposed development is comprised of 11.1 miles of new public bicycle trails, equestrian trails, pedestrian trails and stairways, and coastal access ramps.
P #12 Make use, where appropriate, of existing rights-of-way and easements.	**Consistent:** The proposed improvements to Palos Verdes Drive South would occur within the existing right-of-way.
P #13 Provide safety measures on paths and trails, particularly on bluffs and ridgelines, and include such measures as key design factors.	**Consistent:** Design features of the proposed trails network would be subject to review and approval by the Director of Public Works.
P #15 Encourage the establishment of a program designed to educate users and non-users of path and trail networks in terms of safety and courtesy.	**Consistent:** Signage posted in the proposed trails network would serve to educate users.
P #16 Ensure public access to the Rancho Palos Verdes shoreline.	**Consistent:** The Project proposes two shore access points and a coastal access trail, consistent with the Coastal Specific Plan.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #18 Require adequate off-street parking for all existing and future development.	**Consistent:** The proposed Project would provide a total of 825 on-site parking spaces. Analysis has concluded that this is an adequate amount to meet the Project's overall parking demand.
P #21 Require detailed analysis for all proposals to convert local public roads into private streets or retain new local roads as private property. Conditions for establishing private streets should include: (a) The road is a truly local road and is no needed as a thoroughfare in the collector and arterial road network, (b) An assessment district or a C.C.& R. district is established which will allow the district to levy taxes or legally enforceable assessments for road maintenance, c) Provisions are made to guarantee the proper up-keep of the streets, (d) Dedication of non-vehicular easements may be required.	**Consistent:** The Project does not propose to convert local public roads into private streets or retain new local roads as private property.
HAZARD POTENTIAL AND RISK	
P #4 Cooperate with the fire protection agency and water company to ensure adequate water flow capabilities throughout all areas of the City.	**Consistent:** According to the CWSC, an insufficient water storage capacity exists in the western portion of the peninsula. Therefore, a storage tank is required in the Project vicinity. Payment by the Applicant of their fair share portion of the funding associated with the tank would reduce the Project's impact to a less than significant level.
P #5 Cooperate with the fire protection agency to determine the feasibility of utilizing the existing helicopter "pad" at the Nike Site for a water refueling location.	**Consistent:** The helicopter pad which exists on the UPVA has been in use by the LACFD as a refueling location. Although Project implementation would remove this helicopter pad, compliance with the mitigation specified would reduce this impact to a less than significant level.
P #6 Develop stringent site design and maintenance criteria for areas of high fire hazard potential.	**Consistent:** As the Project site is located within Fire Zone 4, the Project would be subject to compliance with Section 1117.2.1 of the County Fire Code which requires submittal of a Fuel Modification Plan, a Landscape Plan and an Irrigation Plan.
P #8 Coordinate with the Fire Department to determine the feasibility of providing emergency access to the end points of long cull-de-sacs (in excess of 700 ft.).	**Consistent:** The Project proposes three emergency access roads within the RHA for use by fire, paramedic and other public safety services (refer to Exhibit 3.5, *Circulation Plan*).

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #9 Ensure that services are provided to deal adequately with health and sanitation problems.	**Consistent:** Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to public health and safety (refer to Section 5.10, *Public Health and Safety).*
P #10 Ensure that local, County, State, and Federal health, safety, and sanitation laws are enforced.	**Consistent:** A Phase I Environmental Site Assessment was conducted for the Project site and the required mitigation measures were specified in Section 5.10.
P #11 Ensure that adequate emergency treatment and transportation facilities are available to all areas of the city.	**Consistent:** The Project proposes three emergency access roads within the RHA to ensure that adequate emergency treatment and transportation facilities are available throughout the RHA.
P #13 Encourage the availability of paramedic rescue service.	**Consistent:** Paramedic rescue service to the Project site would be provided by the County of Los Angeles Fire Department. Analysis has concluded that a less than significant impact would occur in this regard.
P #14 Be prepared to implement contingency plans to cope with a major disaster.	**Consistent:** Implementation of the proposed Project would not impair implementation of the City's adopted emergency response plan. Analysis has concluded that compliance with the City Development Code would result in a less than significant impact in this regard.
P #17 Ensure the protection of compatible levels of wild animal populations.	**Consistent:** Analysis has concluded that, with mitigation, a less than significant impact would occur with respect to Project impacts upon wild life populations (refer to Section 5.3, *Biological Resources*).
URBAN ENVIRONMENT ELEMENT IV-- NOISE	
P #1 Mitigate impacts generated by steady state noise intrusion (e.g., land strip buffers, landscaping, site design).	**Consistent:** Analysis has concluded that stationary noise impacts would be reduced to less than significant levels with adherence to City Noise Ordinance requirements which include shielding of equipment, loading activities and other related limitations.
P #3 Regulate land use so that there is a minimal degree of noise impact on adjacent land uses.	**Consistent:** Under future conditions without the Project, several local roadways would experience noise levels in excess of established standards. Project generated trips would further exacerbate this projected exceedance. Also, refer to P #1.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #6 Control traffic flows of heavy construction vehicles en route to and from construction sites to minimize noise.	**Consistent:** Haul routes would be approved by the City's Public Works Department. Additionally, the proposed Project would be subject to compliance with Development Code standards with respect to construction activities.
P #7 Maintain current and up-to-date information on noise control measures, on both fixed point and vehicular noise sources.	**Consistent:** The proposed Project would be required to comply with noise control mitigation measures (refer to Section 5.9, *Noise*).
SAFETY	
P #2 Adopt and enforce building codes, ordinances, and regulations which contain design and construction standards based upon specified levels of risk and hazard.	**Consistent:** The proposed Project would be subject to compliance with all applicable codes, ordinances, and regulations.
URBAN ENVIRONMENT ELEMENT IV -- VISUAL ASPECTS	
P #2 Enhance views and vistas where appropriate through various visual accents.	**Consistent:** Development of the RHA is considered a beneficial impact to views and vistas (refer to Section 5.1, *Aesthetics/ Light and Glare*).
P #3 Preserve and enhance existing positive visual elements, while restoring those which are lacking in their present visual quality.	**Consistent:** The resort hotel structures and the golf course structures would not intrude on the overall panoramic view of the Pacific Ocean or Catalina Island. Furthermore, the RHA would be landscaped and habitat restoration would occur within and along the perimeters of the proposed Golf Course, changing the weedy disturbed areas to conditions native to Coastal Southern California, thus creating a beneficial visual impact.
P #5 Develop well located vista points to provide off-road areas where views may be enjoyed. These should have safe ingress and egress and be adequately posted.	**Consistent:** While vehicular turn-out vista points are not provided as a part of the proposed Project, the proposed "pedestrian" vista points would be consistent with the General Plan and Coastal Specific Plan. Further, the Project proposes to expand the existing parking at the Fishing Access (refer to Exhibit 5.13-2, *Proposed Recreational Facilities*).
P #6 Develop and maintain, in conjunction with appropriate agencies, public access to paths and trail networks for the enjoyment of related views.	**Consistent:** A variety of public pedestrian trail links are proposed within the Project area, including single-use, joint-use, and multi-use trails, coastal access walkways, and scenic viewpoints (refer to Exhibit 5.13-2).
P #7 Require developers, as developments are proposed within areas which impact the visual character of a corridor, to address treatments to be incorporated into their projects which enhance a corridor's imagery.	**Consistent:** Landscaping in the Palos Verdes Drive Median would be required as part of the proposed Project.

Applicable General Plan Goal/Objective	Project Consistency Discussion
P #8 Require developments within areas which will impact corridor-related views to fully analyze project impacts in relation to corridors, in order to mitigate their impact.	**Consistent:** Project impacts to the corridor which exist along Palos Verdes Drive South are addressed in Section 5.1, *Aesthetics/Light and Glare.*
P #9 Require developments which lie between natural areas to be maintained and viewing corridors to show how they intend to mitigate view disruption.	**Consistent:** The Project proposes implementation of the Habit Conservation, Restoration and Enhancement Program which details the proposed maintenance of the native habitat areas. Impacts associated with view disruption are detailed in Section 5.1, *Aesthetics/Light and Glare*.

TABLE 5.7-3
COASTAL SPECIFIC PLAN CONSISTENCY ANALYSIS

Applicable Coastal Specific Plan Goal/Objective	Project Consistency Discussion
COMMERCIAL RECREATION GUIDELINES	
P #1[10] Access should not be taken from Nantasket Drive (in Subregion 3) since it is designed as a residential street and commercial traffic would in all likelihood cause significant problems.	**Consistent:** Access to the RHA is proposed via an entry way aligned consistent with the historical entrance to Marineland. Access to the RHA would not be taken from Nantasket Drive.
P #2 The project proponents should investigate the possibility of sharing access with Marineland through the use of appropriate legal methods.	**Consistent:** Refer to P #1.
P #3 Parking and access should be designed so that it is sufficiently buffered from existing	**Consistent:** Parking for the RHA would not be located in proximity to the adjacent residential area situated to the east.
NATURAL ENVIRONMENT ELEMENT	
P #1: Allow only low intensity activities within Coastal Resource Management districts of extreme (35% or greater) slopes (CRM 1).	**Consistent:** Within the RHA, the area along the bluffs is designated as CRM 1. The Project proposes the development of low intensity activities (i.e., pedestrian trails) within this area.
P #2 Require any development within the Coastal Resource Management Districts of high slopes (CRM 2) and insufficient information area (CRM 5) to perform at least one, and preferably two, independent engineering studies (performed by a licensed engineer) concerning the geotechnical, soils, and other stability factors (including seismic considerations) affecting the site.	**Consistent:** Within the RHA, there exists both areas of high slopes (CRM 2) and insufficient information area (CRM 5). As detailed in Section 5.5, *Geology, Soils and Seismicity*, multiple engineering studies have been conducted concerning geotechnical, soils, and other stability factors (including seismic considerations) affecting the RHA.
P #3 Allow no permanent structures within Coastal Resource Management Districts of extreme hazard (CRM 3A) and be cautious of allowing human passage. The same structural limitation applies to areas of high hazard (CRM 3B) but human passage may be more readily allowed.	**Consistent:** Within the RHA, there exists both areas of extreme geologic hazard (CRM 3A) and high geologic hazard (CRM 3B). Permanent structures are not proposed within these portions of the RHA although human passage would occur in association with the proposed pedestrian trails. As noted in Section 5.5, *Geology, Soils and Seismicity*, Project implementation would result in a less than significant impact to geotechnical, soils, and other stability factors after mitigation.

[10] P # = Policy Number, OP# = Overall Policy Number

Applicable Coastal Specific Plan Goal/Objective	Project Consistency Discussion
P #4 Allow non-residential structures not requiring significant excavation or grading (i.e., recreational facilities) within Coastal Resource Management Districts of marginal stable areas (CRM 4) and insufficient information areas (CRM 5).	**Consistent:** Within the RHA, there are areas designated CRM 5 and CRM 6. The Project proposes the development of the Long Point Trail within these areas. The Trail would not be a structure and would not require significant excavation or grading. Also, refer to P #2.
P #5 Develop stringent site design and maintenance criteria for areas of high wildland fire hazard potential (CRM 6).	**Consistent:** There are no areas designated as high wildland fire hazard potential (CRM 6) on the RHA.
P #6 Allow no grading or structural encroachments into areas within a flood/inundation hazard Coastal Resource Management District (CRM 7)	**Consistent:** There are no areas designated as flood/inundation hazard (CRM 7) on the RHA.
P #7 Prohibit activities which create excessive silt, pollutant runoff, increase canyon-wall erosion, or potential for landslide, within or affecting Coastal Resource Management Districts containing Hydrologic Factors (CRM 8).	**Consistent:** There are no areas designated as containing hydrologic factors (CRM 8) on the RHA.
P #8 Require developments within or adjacent to wildlife habitats (CRM 9) to describe the nature of the impact upon the wildlife habitat and provide mitigation measures to fully offset the impact.	**Consistent:** Within the RHA, the area along the bluffs is designated as CRM 9. The Project proposes the development of low intensity activities (i.e., pedestrian trails) within this area.
P #9 Encourage developments within Coastal Resource Management Districts containing Natural Vegetation (CRM 10) to revegetate with native material wherever clearing of vegetation is required.	**Consistent**: Within the RHA, the area along the bluffs is designated as CRM 10. The Project does not propose clearing of vegetation in this area.
P #10 Protect, enhance and encourage restoration of marine resources of the City through marine resource management and cooperation with other public agencies and private organizations.	**Consistent:** As noted in Section 5.8, *Marine Resources,* Project implementation would result in a less than significant impact to marine resources after mitigation. Various mitigation measures would be required of the proposed Project which would protect and enhance marine resources adjacent to the RHA.
P #11 Encourage establishment of certain designated intertidal areas as marine reserves and apply strict enforcement of the regulations of the reserve.	**Consistent:** The intertidal resources of the Fisherman's Cove and east to the tip of Long Point would be designated as a Habitat Reserve as part of the proposed Project.
P #15 Provide mitigating measures where possible to control surface runoff that might be degrading to the natural environment.	**Consistent:** As noted in Section 5.8, *Marine Resources,* and Section 5.6, *Hydrology and Drainage*, Project implementation would result in a less than significant impact with respect to surface runoff with implementation of the specified mitigation.

Applicable Coastal Specific Plan Goal/Objective	Project Consistency Discussion
P #17 Explore alternate means of enforcement to supplement the enforcement task of protecting the marine environment.	**Consistent:** The Project Applicant would be required to implement mitigation intended to protect the marine environment (i.e., a comprehensive water quality and marine resources monitoring program, a marine habitat reserve, and a Long-term Shoreline Resource Management Plan.
P #18 Support and encourage site and structural designs which respond to climatic site conditions.	**Consistent:** Water conservation measures are proposed by the Applicant including the installation of low volume toilets, water saver showers, and energy conservation fixtures. Where appropriate, drought-tolerant trees and shrubs, and low-water-requirement lawns would be installed on the Project site.
P #20 Encourage restoration efforts dealing with enhancing the marine environment from a biological standpoint.	**Consistent:** The proposed Project does not involve restoration efforts dealing with enhancing the marine environment. However, without Project implementation, unmitigated runoff into the water offshore of Long Point would continue to occur.
CULTURAL POLICIES	
P #1 Consider the implementation of appropriate measures to protect the identified cultural resources.	**Consistent:** As noted in Section 5.4, *Cultural Resources,* the Marineland structures remaining on the RHA demonstrate no particular historic characteristic, therefore, Project implementation would not result in a significant impact in this regard. Mitigation requiring that the Ishibashi Farmhouse Complex be documented would reduce impacts in this regard to a less than significant level.
URBAN ENVIRONMENT ELEMENT	
P #1 Strive to eliminate existing conflicts associated with regionally oriented activities.	**Consistent:** The proposed destination resort, golf course, and practice facility would not be regionally oriented activities.
COMMERCIAL POLICIES	
P #2 Encourage actions deemed necessary or appropriate in the upgrading of Marineland so long as such action(s) is not detrimental or resulting in an adverse effect on surrounding areas.	**Consistent:** The proposed resort hotel would replace the existing dilapidated buildings, roads, vast parking areas, etc., with new buildings, roads, parking and landscaping. This would be considered an upgrade to the RHA and a beneficial impact of Project implementation.

Applicable Coastal Specific Plan Goal/Objective	Project Consistency Discussion
INFRASTRUCTURE POLICIES	
P #1 Encourage conservation of energy resources and natural resources. Energy-responsive design should utilize, but not be limited to, climate, construction techniques, landscaping, structure orientation, and site characteristics.	**Consistent:** Water conservation measures are proposed by the Applicant including the installation of low volume toilets, water saver showers, and energy conservation fixtures. Where appropriate, drought-tolerant trees and shrubs, and low-water-requirement lawns would be installed on the Project site.
P #5 Develop a plan in conjunction with Marineland that encourages patrons to utilize bus service.	**Consistent:** This policy is no longer applicable since Marineland was closed in 1987. However, as illustrated in Exhibit 3.7, *Circulation Plan*, a bus stop would be relocated immediately east of Resort Entry Drive.
P #6 Identify and preserve existing trails to be left in their natural state and post appropriate warning signs.	**Consistent:** The proposed development is comprised of 11.1 miles of new public bicycle trails, equestrian trails, pedestrian trails and stairways, and coastal access ramps. The Project proposes the following trails which where identified in the City's Conceptual Trails Plan: • Palos Verdes Loop Trail: City Hall and Salvation Army Segments; • Palos Verdes Drive Trail - Marineland Segment; • Coastal Bluff Trail System - Long Point Trail Segment; • Coastal Access Trails - Flower Field Trail Segment; and • Other Trails: Resort Entry Trail, Long Point Coastal Access Trail, and Coastal Access Ramps.
P #7 Restrict coastal access points which pose a safety hazard.	**Consistent:** The proposed Project would provide coastal access consistent with those points identified in the Coastal Specific Plan.
P #8 Encourage development in a manner which will minimize the need for sewer pump stations.	**Consistent:** The proposed Sewer Plan for the RHA involves delivering sewage to the existing LACSD Long Point Pump Station. The Project does not involve the development of a sewer pump station.
P #10 Require proposed roads to be public unless it is demonstrated to the City's satisfaction that a private road(s) would not impede public access to the shoreline.	**Consistent:** Access to the resort hotel, golf course and clubhouse is proposed via the Resort Entry Drive. This entry drive would also provide access to 50 public parking spaces proposed in the Resort Coastal Access Parking Area (PA 2-D).

Applicable Coastal Specific Plan Goal/Objective	Project Consistency Discussion
CORRIDOR ELEMENT	
It is the policy of the City to: require development proposals within areas which might impact corridors to analyze the site conditions in order to mitigate impacts and obtain feasible implementation of all corridor guidelines.	**Consistent:** An analysis of site conditions and potential impacts to visual corridors is provided in Section 5.1, *Aesthetics/Light and Glare*.

5.8 MARINE RESOURCES

The purpose of this Section is to assess impacts associated with the Long Point Resort Project on the local marine biological resources of the Rancho Palos Verdes (RPV) coastline. Information in this Section is based on the *Marine Biological Impact Assessment* prepared by Coastal Resources Management (January 2001) and the *Runoff Management Plan/Water Quality Management Plan* prepared by PBS&J (July 2000). This Section identifies the marine resources along the shoreline and in the nearshore marine waters adjacent to the Project area. Potential impacts of construction and operation of residential, commercial, and recreational/open space on local marine life are analyzed and mitigation measures are identified.

EXISTING CONDITIONS

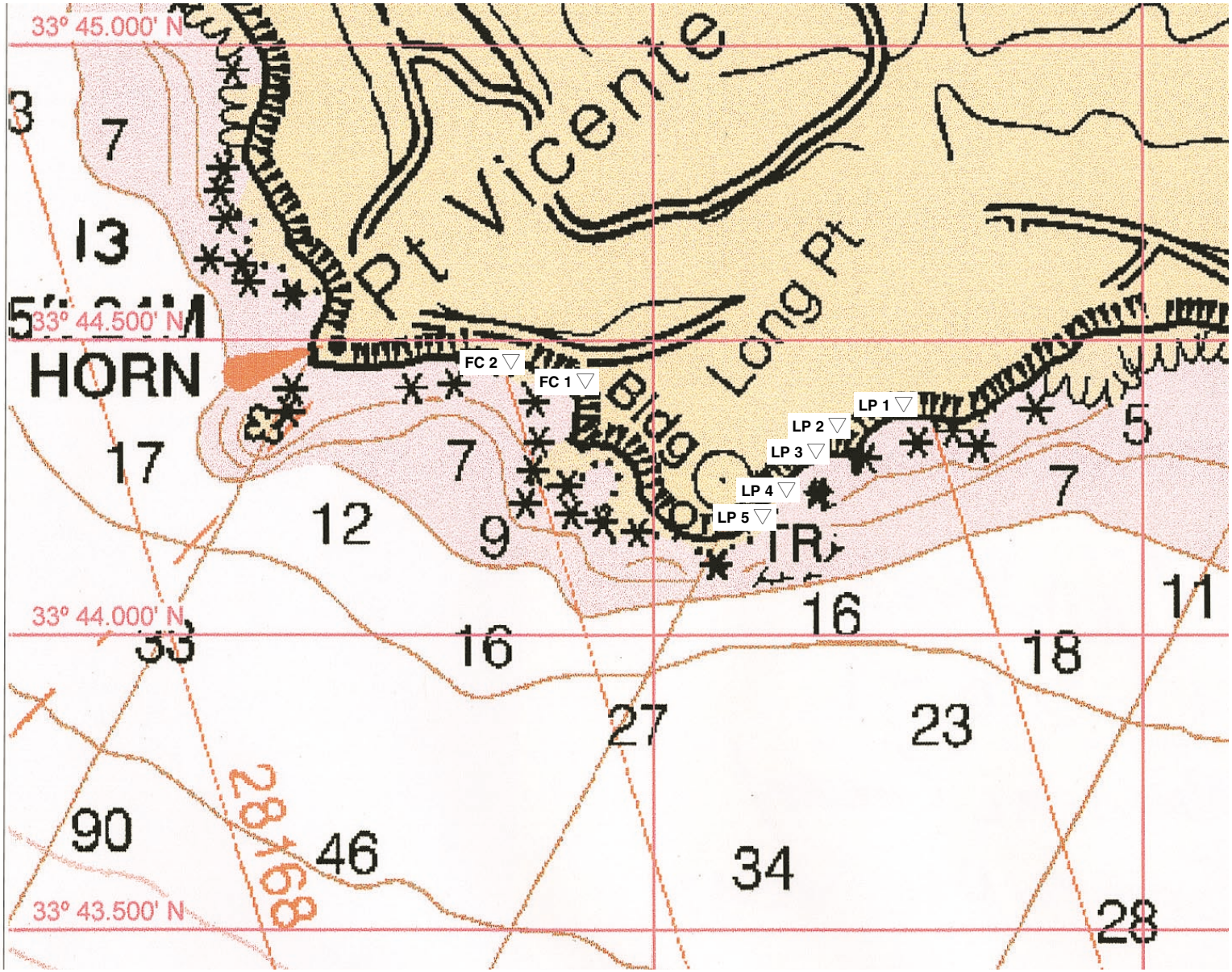
COASTAL GEOLOGY

The waters offshore of the Palos Verdes Peninsula are part of the Southern California Mainland Shelf and the seafloor topography reflects the geological features of the local shorelines. Sediments are coarsest in the wave zone and contain a mixture of sand, gravel, cobble, and shell debris. With increasing depth, sediments grade into fine olive-green sand to silt. Nearer-to-shore, sediments types and distributions are highly influenced by swell and wave activity and intermittent sediment and debris-laden stormwater flows generated from coastal drainages, as well as local landslide events.

The geomorphology of Palos Verdes is relatively unique for Southern California. It is a coastal promontory with an exceptionally narrow (2 to 5 km) shelf. The Redondo submarine canyon to the northwest and the San Pedro sea valley to the southeast separate the Palos Verdes shelf from adjacent bays. The slope begins at approximately 75 meters water depth and the slope changes from 1 degree to 10 degrees.

PHYSICAL OCEANOGRAPHY

Water depths and features along the shoreline of the Project area are shown in Exhibit 5.8-1, *Nautical Chart/Sampling Areas*. Oceanographic conditions in the Rancho Palos Verdes study area are largely influenced by the California Current and other offshore water masses, although these are highly modified by local events and oceanographic conditions. Longshore currents along the Palos Verdes coastline flow north at a speed of about 0.09 knots, although surface currents with speeds up to 1.13 knots for several days have been measured on the Palos Verdes



NOT TO SCALE

SOURCE: RANCHO PALOS VERDES GENERAL PLAN, 1975

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LONG POINT RESORT EIR

Nautical Chart/Sampling Areas

Exhibit 5.8-1

shelf. Surface currents on the shelf above 100 feet flow north, although they may flow northwest, or south-southeast at all depths and throughout the year. During the winter, they tend to flow northwest and west-southwest below 150 feet; in summer they flow northeast and south-southeast near the surface. Longshore currents, caused by breaking waves can move as much as 8 feet per second, transporting beach sediments along shore in a turbid layer which is denser than seawater and which may flow down submarine canyons as turbidity currents. Long period storm waves on the shelf can rework bottom sediments to depths of 150 feet.

Seasonal upwelling is common and brings cooler, nutrient-rich waters to upper waters of the shelf, particularly on the downcoast (southeastern side) of the Palos Verdes headland. Other natural phenomena, such as major warming events and storms (El Nino and water mass movement), La Nina (periods of below-average water temperatures and droughts) have affected marine habitats, and the recruitment, abundance, distribution, and succession of marine organisms. Local impacts of El Nino have caused large scale die-back in kelp beds and the abundances of kelp bed associated organisms, as well as influxes of warm water species uncommon to southern California waters (MBC Applied Environmental Sciences 1988). The combination of both natural and man-induced changes in the marine environment offshore of Palos Verdes make it difficult to separate natural from outfall effects.

Water and Sediment Quality

The quality of the sediments and overlying waters on the Palos Verdes Shelf is highly influenced by the discharge of partially treated wastewater into the marine environment by the Los Angeles County Joint Water Pollution Control Plant (JWPCP). In 1992, this facility discharged approximately 1.25×10^6 meters^3 (330 million gallons) of partial secondary treated wastewater into the sea offshore of Whites Point (Stull 1995). The effluent consists of 85 percent domestic waste (suspended solids, nutrients, oil and grease and 15 percent industrial wastes (trace metals, chlorinated hydrocarbons, cyanide, phenols, oil and grease) and is discharged into the ocean via two large submarine outfalls which terminate in diffuser structures three kilometers offshore of Whites Point, approximately five kilometers southeast of Long Point and the proposed resort hotel. The water depth at the point of discharge is approximately 60 meters (180 feet). (Refer to Appendix 15.8, *Marine Resources Report* for additional history and local water and sediment quality trends).

The County of Los Angeles continually monitors the health of the marine environment offshore of Palos Verde at depths between 23, 61, and 137 and 305 meters. Four stations (3A-3D) are located offshore of Long Point. The location of these stations are shown in Appendix 15.8. Constant monitoring of the water quality, sediment quality, and the marine life of the Palos Verdes peninsula over the last 20 years has revealed that due to changes in treatment practice (reductions in the mass emissions of solids, higher levels of effluent treatment) and increasingly

stringent source control, diverse biological assemblages of invertebrates and fish are more widespread, flatfish fin erosion has disappeared, and kelp beds flourish.

Landslides along the Palos Verdes shoreline (in particular, in Abalone Cove and Portuguese Bend) have caused turbid sediment plumes to migrate along the coastline. Some degree of turbidity effects from the slide areas extend over 1 square nautical mile (847.5 acres) between Inspiration Point and Portuguese Bend and can be tracked as distant as Los Angeles Harbor. Since 1980, the landslide has supplied more than seven times the suspended solids than the JWPCP outfall and is likely to be a contributing factor in the reduction of kelp bed and reef-associated plant and animal assemblages in the immediate area of the landslides, as well as near the JWPCP outfalls.

MARINE BIOLOGICAL RESOURCES

Shoreline Resources

Shoreline Habitat

The shoreline habitats in the Project vicinity include sand, cobble, rocky beaches located in the littoral zone (between extreme high and extreme low tide lines, approximately +7 feet to -2 feet relative to Mean Lower Low Water [MLLW]). These shoreline habitats support diverse assemblages of intertidal plants, invertebrates, and fish. Although this stretch of shoreline is difficult to access (with the exception of Fisherman's Cove), the shoreline between Long Point and Point Vicente is frequented by the public because of the scenery, sunbathing, hiking, scuba diving, tidepooling, and sportsfishing from the shoreline. (Refer to Appendix 15.8, *Marine Resources Report*, for a description of cobble and gravel beaches and rocky intertidal organisms (including tide pools) typical of Southern California).

Site Specific Evaluation of the Resort Hotel Area Intertidal Biota

Coastal Resources Management conducted site-specific surveys of the rocky intertidal resources at Long Point and Fisherman's Cove on March 27 and March 28, 1998. The objective of the surveys was to inventory the habitat types and the assemblages of plants and animals which could be potentially affected by construction, development, or increased public access within the Resort Hotel Area (RHA).

Sampling Methods

Rocky intertidal surveys were conducted during mid-morning to afternoon low tides. Sampling was conducted in the low, middle, high, and splash zone habitats but due to heavy surf and high winds which negated the moderately low tides during the field survey, most of the sampling was conducted above the low tide zone.

The intertidal plant and invertebrate assemblages at Long Point were inventoried at five sites (Sites 1 through 5) between the public access trail at the southeast end of the beach and the Long Point promontory to the west (refer to Exhibit 5.8-1). At Fisherman's Cove, biologists sampled two areas; a small-to-medium sized boulder/cobble field that graded into an intertidal reef platform (Photograph 1) and a high relief rock outcrop 300 meters to the west near the terminus of the western foot trail leading down to the beach (Photograph 2). (Refer to Appendix 15.8, *Biological Resources Report*, for additional sampling methodologies).

Results

A total of 54 taxa of plants, invertebrates, and fishes were identified from the habitat southeast of Long Point and within Fisherman's Cove. Twenty nine were identified from Long Point and 44 taxa were present in Fisherman's Cove. A master species list of the organisms identified in the Project area is presented in Table 5.8-1, *Rocky Intertidal Master Species List.* The rocky intertidal species composition included three taxa of green algae, five taxa of brown algae, nine taxa of red algae, two sea anemones, two species of annelid worms, six crustaceans, 23 species of snails and clams, three echinoderms (seastars and urchins), and one tide pool occurring fish. Four emaciated, dead sea lions (*Zalophus californicus)* were found high up on the rocks at Long Point. A single sea lion was found dead at Fisherman's Cove. These sea lions likely died as a result of the El Nino Oscillation Event of that year, which ultimately resulted in the reduction of sea lion food resources (fish and squid) along the California coast during the winter of 1998.

The Long Point shoreline was characterized by a narrow and steeply sloped backshore of very large boulders one to three meters in diameter. Cobble and coarse sands were present near the access trail at the east end of the beach. The shoreline to the west of the public access trail consisted of low to high relief boulders which extended into the lower intertidal zone. Some high relief rocks (two to three meters in height) were visible in the surf zone. Near the western tip (Long Point) the intertidal area became narrow, and was characterized by higher relief outcrops with ledges, crevices, and overhangs that provided a greater diversity of habitat types than areas to the east. A total of 29 species of plants and invertebrates were observed at the five Long Point sampling sites (Table 5.8-1). By site, the number of taxa observed varied from four to 15. The most frequently occurring taxa (taxa present at more than three sites) included the brown algae

TABLE 5.8-1
ROCKY INTERTIDAL MASTER SPECIES LIST

Common Name	Taxa	Long Point						Fisherman's Cove			Survey
		1	2	3	4	5	All	1	2	All	
Green Algae	**Chlorophyta**										
green algae	*Enteromorpha sp.*	x					x				x
filamentous green algae sea	Filamentous green algae turf	x					x				x
lettuce	*Ulva californica*	x					x				x
Brown Algae	**Phaeophyta**										
sea potato	*Colpomenia sinuosa*								x	x	x
leafy green	*Dictyota flabellata*							x	x	x	x
feather boa kelp	*Egregia menziesii*		x			x	x				x
brown algae	*Pachydictyon coriaceum*							x		x	x
encrusting brown algae	*Ralfsia sp. (Pseudolithoderma)*			x			x		x	x	x
Red Algae	**Rhodophyta**										
turf red	*Ceramium sp.*								x	x	x
coralline red	*Corallina spp.*	x				x	x	x		x	x
coralline red	*Corallina vancouveriensis*		x				x	x		x	x
turf red	*Crytopleura sp.*								x	x	x
filamentous red	Filamentous red algae turf	x					x	x	x	x	x
turf red	*Gelidium coulteri*							x		x]	x
turf red	*Gigartina leptorhynchus*							x		x	x
encrusting red	*Lithophyllum sp./Lithothamnion sp.*							x		x	x
high intertidal red	*Porphyra sp.*	x					x				x
Anemones	**Cnidaria**										
clonal anemone	*Anthopleura elegantissima*	x	x				x	x		x	x
solitary green anemone	*Anthopleura xanthogrammica*		x				x	x	x	x	x
Segmented Worms	**Annelida**										
colonial sand castle tube worm	*Phragmatopoma californica*		x				x	x	x	x	x
calcareous tube worm	Spirorbidae, unid.	x					x				x
Barnacles, Crabs, Lobsters	**Arthropoda**										
barnacle	*Balanus glandula*	x					x	x	x	x	x
buckshot barnacle	*Chthamalus fissus/dalli*			x			x	x	x	x	x
rock louse	*Ligia occidentalis*	x					x				x
lined shore crab	*Pachygrapsus crassipes*	x			x		x	x		x	x
gooseneck barnacle	*Pollicipes polymerus*	x	x				x			x	x
thatched barnacle	*Tetraclita squamosa*				x		x				x
Snails	**Mollusca-Gastropoda**										
spired whelk	*Acanthina spirata*							x		x	x
sea hare	*Aplysia californica*							x	x	x	x
sea hare	*Aplysia vaccaria*							x		x	x
digitate limpet	*Lottia digitalis*							x	x	x	x
file limpet	*Lottia limatula*							x		x	x
rough limpet	*Lottia scabra*			x			x	x	x	x	x
juvenile limpets	*Lottia sp.*							x	x	x	x
striated limpet	*Lottia strigatella*							x		x	x
	Homoloploma luridum	x						x			x

TABLE 5.8-1
ROCKY INTERTIDAL MASTER SPECIES LIST - CONTINUED

Common Name	Taxa	Long Point						Fisherman's Cove			Survey
		1	2	3	4	5	All	1	2	All	
Snails - continued											
Kellet's whelk	*Kelletia kelletii*							x		x	x
wavy top snail	*Lithopoma undosa*							x		x	x
banded littorine	*Littorina planaxis*				x		x	x	x	x	x
striped littorine	*Littorina scutulata*				x		x	x	x	x	x
owl limpet	*Lottia gigantea*	x		x	x		x	x	x	x	x
mossy chiton	*Mopalia mucosa*								x	x	x
kelp snail	*Norrisia norrisii*							x		x	x
chiton	*Nuttalina californica*		x				x	x		x	x
	Roperia poulsoni							x		x	x
calcareous tube snail	*Serpulorbis squamigerus*							x		x	x
black turban snail	*Tegula funebralis*	x					x	x		x	x
banded turban snail	*Tegula gallina*							x		x	x
Bivalves	**Mollusca-Pelecypoda**										
California mussel	*Mytilus californianus*		x				x	x		x	x
boring clams	Pholadidae, unid.							x		x	x
Sea stars	**Echinodermata-Asteroidea**										
ochre sea star	*Pisaster ochraecous*		x		x	x	x				x
Urchins											
red urchin	*Strongylocentrotus franciscanus*							x		x	x
purple urchin	*Strongylocentrotus purpuratus*				x	x	x	x	x	x	x
Fish	**Vertebrata-Pisces**										
tide-pool sculpin	*Clinocottus analis*							x		x	x
	TOTAL NUMBER OF TAXA	**15**	**9**	**4**	**7**	**4**	**29**	**39**	**19**	**44**	**54**

Source: *Marine Technical Assessment*, Coastal Resources Management, October 19, 2000.

(*Egregia menziesii*) red turf algae (*Corallina* spp.) clonal anemones (*Anthopleura elegantissima*), lined shore crabs *(Pachygrapsus crassipes*), buckshot barnacles (*Chthamalus fissus/dalli*), gooseneck barnacles *(Pollicipes polymerus*), owl limpets (*Lottia gigantea*), ochre seastars (*Pisaster ochraceous*), and purple sea urchins (*Strongylocentrotus purpuratus*).

Fisherman's Cove was characterized by a wider and more gently sloping boulder/cobble beach which rimmed the cove. This low relief habitat graded into a stable uplifted reef platform in the center of the Cove which was easily accessible to the public. Eroded headlands provided more stable and higher relief habitat both to the west and east. A total of 32 taxa were identified within the confines of the 1/8 m^2 quadrats, while another 12 were observed nearby (refer to Table 5.8-1 and Table 5.8-2, *Fisherman's Cove Rocky Intertidal Data Summary*). Within the sampling quadrats, 28 taxa were recorded in the low-to-moderate relief boulder field and reef platform habitat (Site 1, Exhibit 5.8-1) while 16 were encountered in high relief habitat at the narrower rocky headland located 300 meters west of Site 1 (Site 2, Exhibit 5.8-1).

Table 5.8-2 summarizes species abundance and occurrence data for Fisherman's Cove. Table 5.8-3, *Numerically Dominant Intertidal Species at Fisherman's Cove March 1998*, summarizes the data for the top five counted and percent cover enumerated species. The number of sampled quadrats along each transect varied between five and eight depending on the width of the intertidal platform. The average community abundance per site at Fisherman's Cove was 61.5 and 100.2 at Site 1 and Site 2, respectively. The greater density of intertidal organisms at Site 2 resulted from substantially higher cover of buckshot barnacles, filamentous green algae, and reef building annelid worms. Overall, Site 1 displayed a higher species richness, but similar abundances compared to Site 2.

Intertidal Zonation

Each of the sample sites exhibited common community patterns associated with tidal zonation, based upon the presence of indicator species. The results compiled during the field survey suggested that the sampling program was conducted primarily in the splash-to-middle tide zones, and that sampling was less representative of the low zone. A typical, rocky intertidal zonation scheme for southern California is shown in Figure 4, *Intertidal Zonation*, found in Appendix 15.8, *Marine Resources Report*. Generally, the faces of the rocky outcrops were relatively high in elevation, and subsequently, species sampled were most representative of the splash and high and tidal zones. The exceptions were crevices, tide pools, and surge channels on the platform, where water was retained over a much higher percentage of the tidal cycle.

TABLE 5.8-2
FISHERMAN'S COVE ROCKY INTERTIDAL DATA SUMMARY

Percent Cover Taxa (Data per 1/8 Sq. Meter Area)	Summary					
	Total	Percent Total	Mean	Std Dev	Occ	Percent Occ
Chthamalus fissus/dalli	166	16.7	41.5	26.6	4	30.8
Phragmatopoma californica	95	9.6	47.5	32.5	2	15.4
filamentous red algae turf	90	9.1	45.0	35.0	2	15.4
Balanus glandula	63	6.3	15.8	14.3	4	30.8
Corallina spp.	47	4.7	9.4	10.8	5	38.5
Dictyota flabellata	40	4.0	10.0	6.1	4	30.8
Lithophyllum sp./Lithothamnion sp.	20	2.0	20.0	0.0	1	7.7
Anthopleura elegantissima	20	2.0	20.0	0.0	1	7.7
Anthopleura xanthogrammica	14	1.4	2.8	1.8	5	38.5
Serpulorbis squamigerus	10	1.0	10.0	0.0	1	7.7
Pseudolithoderma sp.	10	1.0	10.0	0.0	1	7.7
Mytilus californianus	8	0.8	2.7	2.4	3	23.1
Gigartina leptorhynchus	5	0.5	5.0	0.0	1	7.7
Corallina vancouveriensis	5	0.5	5.0	0.0	1	7.7
Colpomenia sinuosa	1	0.1	1.0	0.0	1	7.7
Pollicipes polymerus	1	0.1	1.0	0.0	1	7.7
Subtotal Percent Cover Taxa	**595**	**59.9**	**15.4**	**12.4**	**13**	**100.0**
Number of Species	**17**					
COUNTED TAXA (Data per 1/8 square meter area)	**SUMMARY**					
	Total	**Percent Total**	**Mean**	**Std Dev**	**Occ**	**Percent Occ**
Littorina planaxis	188	18.9	62.7	25.7	3	23.1
Lottia scabra	66	6.6	9.4	8.2	7	53.8
Mopalia mucosa	45	4.5	22.5	20.5	2	15.4
Strongylocentrotus purpuratus	31	3.1	7.8	6.4	4	30.8
Lottia gigantea	21	2.1	7.0	2.4	3	23.1

TABLE 5.8-2
FISHERMAN'S COVE ROCKY INTERTIDAL DATA SUMMARY
(CONTINUED)

COUNTED TAXA (Data per 1/8 square meter area)	SUMMARY					
	Total	Percent Total	Mean	Std Dev	Occ	Percent Occ
Lottia digitalis	12	1.2	4.0	2.9	3	23.1
Lottia sp.	10	1.0	3.3	0.5	3	23.1
Lottia strigatella	6	0.6	6.0	0.0	1	7.7
Nuttalina fluxa	5	0.5	2.5	1.5	2	15.4
Tegula funebralis	5	0.5	2.5	1.5	2	15.4
Acanthina spirata	4	0.4	4.0	0.0	1	7.7
Aplysia californica	1	0.1	1.0	0.0	1	7.7
Kelletia kelletii	1	0.1	1.0	0.0	1	7.7
Pachygrapsus crassipes	1	0.1	1.0	0.0	1	7.7
Aplysia vaccaria	1	0.1	1.0	0.0	1	7.7
Lottia limatula	1	0.1	1.0	0.0	1	7.7
Subtotal Counted Taxa	**398**	**40.1**	**8.5**	**4.4**	**13**	**100.0**
Number of Species	**16**					
Total Abundance	993	100.0	131.4	161.9	13	100.0
Mean Abundance	200.9		24.3	33.6	13	100.0
Number of Taxa	32.0		9.1	6.5	13	100.0

Source: *Marine Technical Assessment,* Coastal Resources Management, October 19, 2000.

TABLE 5.8-3
NUMERICALLY DOMINANT INTERTIDAL SPECIES AT FISHERMAN'S COVE
(March 1998)

Species	Method of Enumeration	Total Abundance per 1/8 sq. m.	Occurrences ( ) and Percent Occurrences (%) (n=13 total)
Littorina planaxis periwinkle snail	direct counts	188	(3), 23.1%
Lottia scabra rough limpet	direct counts	66	(7), 53.8%
Mopalia mucosa mossy chiton	direct counts	45	(2), 15.4%
Strongylocentrotus purpuratus purple sea urchin	direct counts	31	(4), 30.8%
Lottia gigantea owl limpet	direct counts	21	(3), 23.1%
Chthamalus fissus/dalli buckshot barnacle	percent cover	166	(4), 30.8%
Phragmatopoma californica reef building worm	percent cover	95	(2), 15.4%
filamentous red algae green algae	percent cover	90	(2), 15.4%
Balanus glandula acorn barnacle	percent cover	63	(4), 30.8%
Corallina spp. coralline red algae	percent cover	47	(5), 38.5%

Source: *Marine Technical Assessment*, Coastal Resources Management, October 19, 2000.

The angular and vertical sides of the reef platforms were difficult to sample; however, the organisms observed in these areas were very typical of middle and lower tidal zones. High intertidal areas were colonized by periwinkle snails (*Littorina planaxis, L. scutulata*), limpets (*Lottia scabra* and *L. digitalis)* and barnacles (*Chthamalus fissus/dalli*, and *Balanus glandula*). Algal cover on flat surfaces in the high zone at Long Point was dominated by the red algae *Porphyra californica*, and green algae (*Enteromorpha* and *Ulva*).

The middle to low tide zones were characterized by constant surge and wave action. The rims of the larger and more stable outcrops were partially colonized by mussels (*Mytilus californianus)* and gooseneck barnacles (*Pollicipes polymerus*). More protected areas of the outcrops were colonized by anemones (*Anthopleura elegantissima*, *A. xanthogrammica*), whereas the bases of the rocks were occasionally colonized by reef building sabellariid polychaete worms (*Phragmatopoma californica)* and colonial tube snails (*Serpulorbis squamigerus*). Other invertebrates present included snails *(Acanthina spirata, Kelletia kelletii*) chitons (*Mopalia mucosa, Nutallina californica*), limpets (*Lottia gigantea, L. strigatella, L. limatula*), sea hares (*Aplysia californica, A. vaccaria*), urchins (*Strongylocentrotus purpuratus, S. franciscanus*), and ochre seastars (*Pisaster ochraceous*). Lined shore crabs (*Pachygrapsus crassipes*) and hermit crabs (*Pagurus* spp.) were ubiquitous throughout the low intertidal pools, although not necessarily located in the study quadrats.

The surfaces of rocks in the middle and lower tide zones were also colonized by crustose red algae (*Lithophyllum/Lithothamnion* complex) and coralline algae (*Corallina* spp.) mixed with filamentous red algae (*Ceramium, Gigartina,* and *Cryptopleura*). Macrophytic brown algae ("kelp") was present, but not overly abundant. No surfgrass was observed, although it likely occurs in the very low to shallow subtidal zone. The most common smaller brown macrophyte was *Dictyota flabellata*, whereas feather boa kelp (*Egregia menziesii*), was the only larger macrophyte observed. Overall, both areas (Long Point and Fisherman's Cove) lacked a diversity of small, leafy red algae taxa that are generally common to lower tide pool areas. This pattern was also observed by the Vantuna Research Group and Chambers Group (1996) in Abalone Cove and Portuguese Bend and by Coastal Resources Management (1994 and 1997) along the Malibu coastline. These trends are locally a result of landslide activity; however, the lack of foliose red algae during March 1998 may also be related to seasonal effects and accentuated by winter run-off and heavy surf conditions associated with the El Nino phenomenon.

Nearshore Benthic (Seafloor) Environment

Subtidal Habitats

The nearshore seafloor topography is a mosaic of unconsolidated sand, silt, and clay sediments as well as hard bottom (reefs) composed of shale and or boulder fields. Seasonally sediment scour and accretion events alternately expose and cover low lying reefs within the littoral zone (wave zone) and can affect the stability of the area's bottom (benthic) community structure, abundance, and diversity. Subtidal reefs are located off of the Project area shoreline to depths of 100 feet. Giant kelp forests grow on these reefs, and support a wide diversity of other marine plants, invertebrates, and fishes.

Subtidal Plants

Offshore beds of giant kelp (*Macrocystis pyrifera*) along the Palos Verdes coastline are significant because they increase the diversity of the subtidal invertebrate and fish communities. The local beds were eliminated between 1958 and 1975 due to pressures from pollution, grazing, and increased water temperatures (Wilson 1982). Between 1975 and 1977 the California Dept. of Fish and Game attempted to restart kelp at nine locations along the Palos Verdes coastline, including Abalone Cove. By 1975 the local kelp was re-established. The yearly extent of the kelp canopy is highly variable. It typically declines during warm water conditions unfavorable to kelp growth found during El Nino years and expands during cooler water episodes associated with the La Nina condition.

Other plants occurring on the hard bottom reef areas in the region include surfgrass (*Phyllospadix* spp.) and the brown algaes *Cystoseira*, S*argassum, and Egregia*. Smaller algae also occur subtidally, encrusting or colonizing the cobble and rock substrate. Common smaller algal forms included crustose red algae (*Lithothamnion/ Lithothamnion*), and coralline red algae (*Corallina* spp., and *Bossiella* spp.) (Vantuna Research Group and Chambers Group 1996).

Subtidal Reef Macroinvertebrates

At depths between 6 and 24 meter offshore of Long Point, the Los Angeles County Sanitation District staff recorded 151 species of reef invertebrates between 1972 and 1997. They recorded 21 sponge taxa, 19 species of cnidarians, 10 species of annelid worms, 12 species of crustaceans, 65 species of mollusks, 8 species of ectoprocts, and 16 species of urochordates (Dave Montagne, Los Angeles County Sanitation District, pers. com. Near the RHA, 26 species of macroinvertebrates were identified in Abalone Cove during September 1988. Although no densities were given, the most frequently listed species were red and purple sea urchins, turban snails, anemones, reef building annelid worms, and limpets. Purple urchins and white urchins (*Lytechinus* sp.) were the dominant urchins. Sea fans (*Muricea californica*) were reported to be increasing in numbers due to better water quality. Abalone (*Haliotis spp.*) populations were believed to be decreasing due to urchin

population increases that have reduced the abalone's primary food supply, drift algae. Overfishing and viral infections in abalone are also reported to factors in the decline of the abalone population. (Refer to Appendix 15.8, *Marine Resources Report*, for a description of subtidal reef macroinvertebrates historical trends in the Project area).

Soft Bottom-Dwelling Invertebrates

Sediment dwelling (benthic) invertebrates live within the sediments (infauna) or on the sediment surface (epibenthic invertebrates). Generally, the smallest infaunal organisms (the meiofauna) are generally not well studied but include one-celled protozoans, small roundworms, small polychaetes, oligochaetes, copepods, gastrotrichs, flatworms, kinorhynchs, and tardigrades. Macroinfaunal invertebrates of the Palos Verdes Shelf and Santa Monica Bay region are more commonly monitored and are used by scientists as indicators of environmental change because the organisms do not migrate and are readily collected. Benthic infauna are also important because they are important prey for many benthic feeding fishes (Allen 1982). The most abundant types of benthic macroinvertebrates are polychaete worms, crustaceans (i.e., amphipods, cumaceans, isopods, and ostracods), mollusks (clams, snails, octopus, sea slugs), and echinoderms (sea stars, brittle stars, sea urchins, and sea cucumbers.

Water Column Assemblages

The open water habitat supports bacteria, plankton (phytoplankton and zooplankton), and nekton (larger mobile invertebrates, fishes, and marine mammals). The abundances and distributions of these organisms are influenced by many factors, of which temperature, nutrients, and phytoplankton abundance are extremely important. Local currents, upwelling, and contaminants from regional wastewater outfalls will also influence the pelagic community.

Phytoplankton (blue-green algae, green algae, diatoms, dinoflagellates, euglenoids) are microscopic plants that form the basis of pelagic food webs. Diatoms are dominant during spring when upwelling waters and light levels favor production, and secondarily during fall when nutrients again are abundant. Dinoflagellates are dominant in periods when diatom abundance is low.

Zooplanktonic organisms include small animals that drift with the current such as crustaceans (copepods, krill, mysid shrimp) pelagic snails and pelagic polychaetes. Some spend their entire life as zooplankton (holoplankters) while others spend only a part of their life cycle in the plankton (meroplankters). Some zooplankton are larger, such as the jellyfish. Kleppel et al. (1982) sampled the Santa Monica Bay plankton community and determined that most of the zooplankton were copepods (*Acartia tonsa* and *Calanus pacificus*), which are representative of coastal regions. These animals are found in the water column at most depths, and will migrate to

the surface at night and to deeper waters during the day. Zooplankton are important because they are primary consumers, and graze on phytoplankton. In turn, zooplankton are consumed by higher order consumers such as fish.

Fishes

Fishes of the inshore-Palos Verdes shelf include both migratory and non-migratory species, and several have commercial and sportsfish value. A variety of substrate and habitat types along the Palos Verdes Shelf (rocky bottom, sand, mud, kelp beds, and neritic) account for a higher diversity of fishes than in more homogenous areas. Nearshore, the fish fauna is typically composed of neritic, sand bottom, hard bottom, and kelp bed associated species.

Dominant pelagic forms that can occur locally include chub (Pacific) mackerel, northern anchovy, and Pacific sardine. Occasionally, other species such as yellowtail and Pacific barracuda may move closer to shore, in response to El Nino events when water temperatures are elevated. Closer to shore the dominant neritic species include queenfish, jacksmelt, topsmelt, Pacific Bonito, shortbelly rockfish and white seabass.

Fishes identified in the surfzone habitat between Abalone Cove and Portuguese Bend include topsmelt (*Atherinops affinis*) walleye surfperch (*Hyperprospon argenteum*), dwarf surfperch (*Micrometrus minimus*), and calico surfperch (*Amphicteus koelzi*) (Vantuna Research Group and Chambers Group 1996). Walleye surfperch were also found in non-turbid waters of Portuguese Bend.

The nearshore fish composition over reefs and soft bottoms includes a mixture of hard bottom and soft bottom associated species and typically includes reef associates such as spotted kelpfish, opaleye, black surfperch, and kelp bass. At deeper depths (six to 30 fathoms) over sandy/mud sediments, fish abundances are dominated by speckled sanddab, white croaker, tonguefish, California halibut, and horny head turbot, all of which are common species of the Palos Verdes shelf.

Marine Mammals

California sea lions (*Zalophus californianus*) and harbor seals (*Phoca vitulina*) occur in the nearshore waters of Palos Verdes (Bonnell et al 1981). These species forage beneath the surface on pelagic and demersal fishes and squid. Occasionally, sub-adult male southern sea otters are sighted along the Palos Verdes coastline (ACOE 1992).

Four species of baleen whales and eight species of toothed whales occur over the Palos Verdes shelf (Bonnell et al 1981, Dohl et al 1981). The California gray whale (*Eschricthius robustus*), bottlenose dolphin (*Tursiops truncatus*), common dolphin (*Delphinus delphius*), and pacific white sided dolphin (*Lagerhynchus obliquens*) are

the most common species in the Project vicinity. Sitings of sperm whales (*Physeter catadon*) and Dall's porpoise (*Phocenoides dalli*) are also reported in the general area (U.S. ACOE 1992). One of the most important areas of marine mammal concentrations is within a nine mile radius of Point Vicente and includes the waters offshore of Abalone Cove and Portuguese Bend.

Marine Avifauna

Seabirds, waterfowl, and shorebirds occur along the Palos Verdes shoreline throughout the year, but concentrations are usually highest during the fall to spring period when seasonal migrants spend their winters along the southern California shoreline. Common shoreline species include willet (*Cataptrophorus semipalmatus*), whimbrel (*Numenius phaeopus*), marbled godwit (*Limosa fedoa*), sanderling (*Calidris alba*), and western and ring-billed gulls (*Larus occidentalis* and *L. delawarensis*). The western grebe (*Aechmophorus occidentalis*), various species of cormorants (*Phalacrocorax* spp.) and surf scoter (*Melanitta perspiillata*) are among the bird species which occupy the nearshore waters of this area. Several species of terns (*Sterna* spp.), gulls (*Larus* spp.) and California brown pelican (*Pelecanus occidentalis*) are expected to occur in the offshore area.

THREATENED, ENDANGERED, AND NON-LISTED SENSITIVE SPECIES

California Brown Pelican

The brown pelican is a Federally listed endangered species that occurs along the southern California coastline for most of the year. No breeding habitat occurs on the mainland; the species nests primarily on the Channel Islands. Brown pelicans are common along the Palos Verdes shoreline and utilize the rocky shores for roosting and the nearshore waters for foraging.

California Gray Whale

The California gray whale is a Federally-listed threatened species. Gray whales swim offshore of the Project area during their seasonal migration between their summer arctic feeding grounds to their winter Baja California calving and nursery lagoons. Their population is estimated to exceed 22,000 animals and is growing at a rate of 2.5 percent each year.

Between late December and late February, gray whales are southbound and follow one of several routes through the southern California Bight, i.e., the waters between Point Conception and the Mexican Border. A portion of the migrants follow a migration route along the coastline within a few miles of the shoreline. Between late February and late March, the first of two pulses of gray whales migrate north. This pulse consists of non-cow/calf animals. Juveniles frequently travel close to shore along the shoreline of Long Point to Palos Verdes Point. Cows with young-of-the-

year calves appear between late March through early May and usually travel within an eighth of a mile of the shoreline. The Point Vicente area is a well known site for observing gray whales.

California Grunion

The California grunion (*Leuresthes tenuis*) is considered a sensitive fish species by resource agencies but it does not have any official listing. Grunion use many beaches in southern California as spawning habitat. Boulder and cobble beaches in the Project area along the Palos Verdes coastline are not conducive to grunion spawning activity. There are no known grunion spawning areas within the Project area.

SENSITIVE HABITATS

Refuges and Reserves

The local coastline in Fisherman's Cove and along Long Point is protected under a Rancho Palos Verdes Marine Life Preserve ordinance. Fishing is allowed within this area, but the taking of invertebrates and all other marine life is regulated by California sportsfishing code. Nearby, the shoreline extending between Inspiration Point and 0.5 miles northwest of Portuguese Point (including Abalone Cove and the waters extending 300 feet offshore) are protected under State of California legislation as the Abalone Cove Ecological Reserve and listed as Marine Protected Area Site 71 (McArdle 1997). The taking of any marine life and the disturbance of any geological or archaeological formations is prohibited. Beyond Abalone Cove, the nearest protected habitat is the Point Fermin Marine Life Refuge, approximately seven miles to the southeast of Long Point.

Surfgrass

Surfgrass (*Phyllospadix* spp.) is a sensitive marine resource that occurs in rocky shoreline and rocky subtidal habitats at depths to approximately 20 feet. Its sensitivity is related to its use by invertebrates and fishes as nursery habitat and its susceptibility to long-term damage because it is a very slow growing species. No surfgrass was observed during the field surveys due to wave and surf conditions. It was not present at either Abalone Cove or Portuguese Bend during the Van Tuna Group investigations in 1996, but was located at Palos Verdes Point that same year. However, it was reported to be present in Abalone Cove at a depth of approximately 1.0 to 5.0 feet Mean Lower Low Water (MLLW) in 1989.

Reefs and Kelp Beds

Although subtidal reefs do not have official status as a sensitive habitat or resource, kelp forests associated with reefs afford protection and cover for many marine

invertebrates and fishes. Kelp (*Macrocystis pyrifera*) grows on rock and cobble habitat offshore of the Palos Verdes shoreline at depths between 20 and 45 feet. The historical distribution of kelp along the Palos Verdes coastline is shown in Appendix 15.8 of this document. Since the early 1970s, kelp has shown excellent growth, although diebacks have occurred during warm water El Nino periods.

FISHERIES

The Palos Verdes Peninsula is an important partyboat and commercial fish and invertebrate catch region in California. Portuguese Bend and Abalone Cove are within the southern part of California Department of Fish and Game Block 720. Much of Block 720 is above deep canyon and channel waters, whereas the Portuguese Bend and Abalone Cove are in shelf waters characterized by rocky to silty sediments. Block 719, just east of Block 720 covers a smaller area and is mostly over the shelf. The types of species caught, and catch trends are affected by a number of environmental factors (temperature, upwelling, rainfall, storm events) and societal factors (environmental contamination, dumping, fishing practices, and economics (Stull et al. 1987).

Between 1978 and 1984, the Palos Verdes fishery accounted for 6.8% of California's party boat catch (2.65 million of 38.78 million fish). The dominant catch for the Palos Verdes region between 1981 and 1985 was Pacific mackerel, kelp-sand bass complex (kelp bass, bared sand bass, spotted sand bass), Pacific Bonito, and rockfish complex (boccaccio, vermillion, cow, and olive). The catch per angler (5.17) in 1981-1985 was lower than the preceding five year period (8.19) possibly due to (1) El Nino and severe storms of 1982-1983 and (2) public awareness of contaminated fish tissues.

The total commercial catch on the Palos Verdes Peninsula was 50 million pounds between 1969 and 1983 with peaks of over 14 million pounds in 1976-1977. Most of the catch was northern anchovy. In Block 720, northern anchovy also dominated the catch accounting for 76 percent of the landings (4 million pounds), along with Pacific mackerel (4 percent) sea urchin (3 percent), Pacific bonito (2 percent), and rock crab (2 percent). Other species caught in Block 720 were market squid, white croaker, white seabass, California spiny lobster, California halibut, California scorpionfish, California barracuda, and California sheephead (Stull et al. 1987).

IMPACTS

Significance Criteria

The threshold for significance of impacts to marine biological resources is determined by scientific judgement, and considers the relative importance of the habitat and/or species affected by project implementation. For the purposes of this

analysis, the project's effects on marine biological resources are considered to be significant if it would:

- Substantially affect a rare, threatened, endangered, or candidate plant or animal species, or the habitat of any such species (refer to Impact Statement 5.8-1 and 5.8-2);
- Substantially diminish or degrade the habitat of any marine plant or animal (refer to Impact Statement 5.8-1 and 5.8-2);
- Result in notable net loss of a biotic community that is subject to local, State, and/or Federal regulations or that is otherwise of very limited occurrence in the region (refer to Impact Statement 5.8-1 and 5.8-2);
- Interfere substantially with the movement of any resident or migratory fish and wildlife species (refer to Impact Statement 5.8-3); or
- Conflict with adopted environmental policies, general plans, or regulatory policies of the community and State of California (refer to Impact Statement 5.8-5).

Relevant California Environmental Policies and Acts

The California Coastal Act (State of California 1976, amended 1999) provides the basis for protection of land and marine resources within the California coastal zone. The following relevant sections of the Coastal Act apply to protection of local marine resources in the vicinity of the proposed Long Point Resort.

Section 30231 of the California Coastal Act

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with groundwater flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30107.5 of the California Coastal Act

Environmentally sensitive areas are “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily or degraded by human activities and developments.”

Section 30240 of the California Coastal Act

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade these areas, and shall be compatible with the continuance of those habitats and recreational areas.

Section 30230 of the California Coastal Act

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economical significance. Use of the marine environment shall be carried out in a manner that would sustain the biological productivity of coastal waters and that would maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific , and educational purposes.

Impacts to Marine Biological Resources are analyzed below according to topic. Mitigation measures at the end of this Section directly correspond with the numbered impact statement.

CONSTRUCTION IMPACTS

Grading and Storm Drain Construction

5.8-1 *Grading activities and storm drain construction associated with Project implementation may disturb intertidal resources, nearshore resources, sensitive species and sensitive habitats. Impacts would be reduced to a less than significant level with implementation of mitigation (i.e., development of an Erosion Control Plan and Storm Water Pollution Prevention Plan).*

Grading Impacts on Intertidal Resources

Habitat Burial. Cut and fill operations would be necessary for the grading of the hotel facilities, golf course, and other hotel-related developments. Earthwork would result in approximately 550,000 cubic yards of cut and 500,00 cubic yards of fill. During storm events, exposed sand and silty soils, and organic debris from the construction site could be eroded and washed down the bluffs and/or through the existing storm drains into the intertidal and subtidal habitats and then transported upcoast or downcoast in the littoral drift. This could result in localized shoreline burial of rocky intertidal habitat and mortality of marine life. The diversity and abundance of intertidal plants and invertebrates would decrease if graded soils were

transported and trapped in tidal pools that could not be flushed through tidal and wave action. Sands and silts could cover the bottom of the tide pools as well as low-lying boulder habitat. These trapped sediments could smother algae and sessile invertebrates (anemones, sponges, tube worms, barnacles, mussels, and tube snails). Finer-grained mud sediments would remain in suspension and create turbid conditions in the tide pools until the tides could flush the suspended sediments out of the tide pools.

A decrease in algae cover would result in a decrease of rocky intertidal primary productivity, particularly for delicate red and green foliaceous algae, and upper intertidal rockweeds. A reduction in algal cover could also result in less food availability for herbivorous invertebrates (chitons, limpets, snails, and hermit crabs), a shift in species composition to more sand-tolerant forms (coralline algae), and a decrease in secondary production.

Runoff Contaminant Loads. Typical pollutants generated during grading activities and other construction activities could include nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials and debris, fuel, lubricants and other toxins related to construction equipment and its maintenance. If these pollutants enter the ocean through airborne or water-borne transport methods, water quality degradation and potential adverse impacts to marine life could potentially occur. Direct mortality, reduced viability, loss of food resources, and habitat contamination could result.

The generation of these pollutants from the construction site would be mitigated by the inclusion and implementation of water quality management PDFs proposed as part of the Project design so that the California Toxics Rule and California Ocean Plan discharge requirements are met. In instances where runoff concentrations exceed Ocean Plan discharge requirements, immediate and rapid dilution of the runoff should be adequate to reduce concentrations to levels that would not be harmful to marine organisms. Strict adherence to identified source controls and Best Management Practices (BMP's) would result in short-term, and less than significant impacts on local shoreline and nearshore marine resources.

Dust Generation. Grading and construction may result in the production of dust generated from the operation of construction equipment and vehicles on the site. During high velocity, dry windy conditions, this dust could potentially be transported offshore into the marine environment, particularly during high velocity wind conditions. The addition of dust to the tide pool waters would result in a short-term, less-than-significant impact that would form a light coating of sediment in tide pool habitat and open water areas depending on the velocity and duration of the wind event. This material would be removed during high tides and waves. The deposition of fine dust in the Project area could potentially result in a short-term increase of water turbidity and a reduction in photosynthetic processes. Such a reduction would result in a slight decrease in photosynthetic activity of intertidal plants.

Because of the expected short duration of any wind events that might generate dust the expected effect would be less-than significant on water quality and marine resources. The generation of dust from the construction site would also be mitigated by the inclusion of the aforementioned Project water quality management PDFs that would reduce the amount of dust generated by the Project.

In summary, the significant impacts of grading activities on intertidal marine resources would be reduced to a less than significant level with mitigation requiring the implementation of (1) a Storm Water Pollution Prevention Plan (SWPPP) (2) Best Management Practices (BMPs) identified within the State of California "California Storm Water Best Management Practice Handbook for Construction Activity" and (3) preparation and implementation of a Construction Erosion Control Plan prior to site construction. (Refer to the *Construction Erosion Control Plan and Storm Water Pollution Prevention Plan* Section below for further details regarding these Plans.) These plans and documents would identify dry season and wet season runoff control measures, source control, and or treatment controls that would avoid and/or mitigate potential soil erosion, runoff pollutants, and other stormwater constituents.

Grading Impacts on Nearshore Resources (Open Water and Benthic Environments)

The waters offshore of Long Point support a productive and diverse open water community of plankton, fishes, and marine mammals. These waters are also utilized for sportsfishing and commercial fishing. The nearshore benthic environment consists of rocky subtidal, reefs that support giant kelp forests and associated fishes, invertebrates, and plants. The unconsolidated sediments of the Project region support benthic organisms such as worms, clams, and crustaceans.

Stormwater runoff could potentially result in higher nearshore turbidity and a localized short-term significant impact on water quality and marine resources related to a reduced ability of plants to photosynthesize. Topsoils transported to offshore waters by storm water flows, nuisance water flows, or gusty winds would stay in suspension and be transported along the shoreline. Water column habitat and nearshore reefs would be temporarily affected as water turbidity might increase. Short-term reductions in submarine light intensity, slight reductions in primary productivity, and reduced subsurface visibility for sight-foraging fishes and seabirds would be expected.

Less than significant grading effects on nearshore marine life are anticipated with the inclusion and implementation of the Erosion Control Plan and the Storm Water Pollutant Prevention.

Grading Impacts to Sensitive Species

Surfgrass and Kelp. Reduction in surfgrass and kelp production due to runoff and construction grading-related activities would constitute a short-term significant

effect. A light-to-moderate coating of sediments could potentially reach intertidal and/or open water environments. These sediments could settle on rocky habitat that supports sensitive species of plants including surfgrass (*Phyllospadix torreyi*) in the low intertidal and shallow subtidal zones along the Palos Verdes shoreline, and giant kelp (*Macrocystis pyrifera*) located at depths between 20 and 60 ft. Surfgrass grows in high energy regimes from the shoreline to approximately 20 ft depths. It is naturally subjected to periodic sand inundation and can survive short periods of burial. Ocean swells, waves, and currents would dissipate the sediments throughout the water column and transport them away from the area's resources. Giant kelp plants may be susceptible to short-term stresses due to a build up of sediment on the kelp fronds or burial of newly settled recruits. While the potential for such impacts are low a significant amount of sediment transported offshore as a result of erosion from the Project site could result in adverse effects to these nearshore keystone species of plants. However, implementation of mitigation requiring an Erosion Control Plan and Storm Water Pollutant Prevention Plan would result in less than significant impacts to surfgrass and kelp bed sensitive resources since they would assist in reducing the suspended sediment load to the nearshore marine environment.

Listed and Non-Listed Species of Birds. Shorebirds and seabirds would experience less-than-significant impacts from grading activities. The California brown pelican and other seabirds that use their visual-acuity as a foraging mechanism could potentially be displaced by a turbidity plume resulting from grading activities if the plume turbidity prevents seabirds from keying in on baitfish schools. This would result in short-term, significant impacts changes in their foraging behavior but would be mitigated to less than significant with the implementation of the Erosion Control Plan because the amount of suspended load reaching the nearshore environment would be substantially reduced.

Marine Mammals. No impacts to marine mammals are anticipated from construction-related grading activities. Local pinnipeds and cetaceans that might be foraging or transiting the waters offshore of the construction site would not be affected by grading activities. Implementation of the proposed Erosion Control Plan would reduce the potential for turbidity plumes and other runoff from affecting the nearshore and offshore waters.

Grading Impacts to Sensitive Habitats

Grading related activities would not have significant effects to State of California Marine Managed Areas. Fisherman's Cove and the Long Point shoreline is a locally protected marine habitat. This area extends between Inspiration Point and 0.5 miles northwest of Portuguese Point, including Abalone Cove and the offshore is protected under State of California legislation as the Abalone Cove Ecological Reserve and listed as Marine Protected Area Site 71. Damage or the modification of theses habitat would be considered significant environmental impacts. The types of impacts which could occur to these areas are discussed above regarding rocky

intertidal habitats. However, with the implementation of an Erosion Control Plan and Stormwater Pollutant Prevention Plan, no adverse effects to these sensitive habitats are anticipated because the amount of suspended sediments reaching the shoreline and nearshore waters would be substantially reduced.

Storm Drain Construction

Existing Storm Drains

Currently, there are four stormwater discharge locations on the RHA and several smaller ones located on the Upper Point Vicente Area (UPVA). The locations are illustrated in Figures 7a and 7b, *Existing Drainage (Resort Area) and Existing Drainage (Upper Point Vicente Site)*, of Appendix 15.8, *Marine Resources Report*. Discharge Point A is located at the southeastern edge of the Project site. This discharge is intermittent, and cascades off the top of the bluff over the edge and down an incision in the bluff face to the shoreline below. The runoff has created non-native vegetation at the base of the bluff, and discharges to the ocean over a stretch of rocky beach. Discharge Point B is located 300 feet west of Discharge Point A and is a low flow natural drainage. Discharge Point C is located at the southern tip of the property and flows intermittently throughout the year. The runoff is discharged into the rocky intertidal. Discharge Point D is located near the western corner of the RHA close to Palos Verdes Drive South and the secondary access road to Marineland that branches off of Palos Verdes Drive South. The discharge point is a 4-foot wide concrete spillway that conveys runoff to the edge of the cliff. The site also possesses several minor drainage features that currently drain to the beach. These are of concern because although they are minor, they contribute to erosion and destabilization of the bluffs.

On the UPVA, several man made drainages collect and divert runoff from the UPVA. These drainages convey the runoff to the bluff top, and runoff is discharged over the bluff to the rocky intertidal zone at the base of the bluff.

Proposed Storm Drains

For the RHA, major surface water flows of runoff over the bluff would be eliminated, and would be discharged at two points (refer to Figure 8a, *Conceptual Drainage Plan on the Hotel Resort Area Site*, of Appendix 15.8, *Marine Resources Report*). Discharge Point I would consist of an impact stilling basin (energy dissipater) that would dissipate the energy of the flows existing from a 72 inch pipeline onto the shoreline. This would be located at the southeastern extreme of the Project area and out of the public access area. Discharge Point II would be located at the southern edge near Long Point, where runoff flow from a 60-inch pipe and would be dissipated by a second impact stilling basin. These storm drains would direct storm water and runoff from the Project site and would empty the flow onto the Project area shorelines. The energy dissipaters would reduce runoff velocities and

mitigate shoreline erosion/scouring, consistent with the requirements of the City of Rancho Palos Verdes and the California Coastal Commission.

For the UPVA, drainage would continue to follow natural water courses to the ocean (refer to Figure 8b, *Conceptual Drainage Plan on the Upper Point Vicente Site*, of Appendix 15.8, *Marine Resources Report*). No improvements to these drainages are planned because there would be no increase in hydrological characteristics of the UPVA.

Storm Drain Construction Impacts on Intertidal Resources

Impact sill (energy dissipater) construction along the shoreline at Discharge Points I and II would have short-term and less than significant impacts on shoreline environments and intertidal communities. Construction activities would be short-term and limited to the shoreline above the MHT line where impact sills would be constructed. Construction would occur behind the beach berm. Impact sills would likely consist of rock rip rap or concrete materials. The construction of these sills may require equipment to transit over the backshore of the beach would require personnel, trucks and/or dozers to move materials to each of the discharge sites. Vehicles would not transit over rocky intertidal habitat to access the construction sites. Construction workers would occasionally use the intertidal areas and the sandy beach habitats during their breaks or lunch periods.

Construction-related grading impacts occurring while the storm drain and energy dissipaters are being constructed would be prevented with inclusion of an Erosion Control Plan and Storm Water Pollution Prevention Plan.

Strom Drain Construction Impacts on Nearshore Marine Resources

Nearshore marine resources (kelp beds, surfgrass beds, fishes, and reefs) are out of the proposed area of stormdrain and energy dissipater construction and therefore would not be affected by the shoreline storm drain construction activity.

Strom Drain Construction Impacts on Listed and Non-listed Species of Birds

Storm drain construction would have short-term, less than significant impacts to shorebirds and seabirds. Roosting California brown pelicans and other birds may be temporarily displaced as a result of shoreline construction activity, if shorebirds are roosting on the backshore at the time of construction . However, the temporary displacement of these birds would not result in significant impacts to endangered species, or non-listed shorebirds and seabirds because there are no seabird breeding sites on the beach and no physiological stress or injury to individual birds is anticipated.

Storm Drain Construction Impacts on Marine Mammals

No impacts to marine mammals are anticipated from storm drain construction activities. There are no known haul out areas for harbor seals or sea lions within the areas proposed for construction which precludes any significant population-level effects on these species. However, if individual sea lions or harbor seals are present within 50 meters of construction activity, then construction activity shall be monitored by a marine mammal biologist who would have the authority to temporarily halt construction activities should it be determined by the biologist that the individual may be physically harmed by construction activities.

Storm Drain Construction Impacts on Sensitive Habitats

Sensitive Resources (kelp beds and surf grass beds) would not be affected by shoreline construction activity. These resources would not be within the construction area corridor and would not be directly or indirectly affected by shoreline construction activity.

Construction Erosion Control Plan and Storm Water Pollution Prevention Plan

Overall, Project grading and storm drain construction impacts on water quality and marine resources would be reduced to less than significant levels with mitigation requiring the implementation of an Erosion Control Plan and a Storm Water Pollution Prevention Plan that incorporates specific Best Management Practices to avoid impacts to water quality.

An Erosion Control Plan would be required by the Applicant and submitted to the City of Rancho Palos Verdes for approval prior to the initiation of construction. This plan would reduce the potential impacts of airborne dust deposition and waterborne soil erosion during storm events on the marine environment. Specific BMPs that would be required in the Erosion Control Plan are detailed under *Mitigation Measures*.

A Storm Water Pollution Prevention Plan would be required by the Applicant and submitted to the City of Rancho Palos Verdes for approval prior to the initiation of construction. This document would identify source control and or treatment control BMPs that would avoid and/or mitigate runoff pollutants at the specific site to the "maximum extent practical". BMPs would be developed to mitigate for potential adverse impacts from nutrients, heavy metals, toxic chemicals related to construction and cleaning; waste materials such as concrete wash water, paints and paint equipment, wood, paper and concrete materials related to building materials and packaging, food containers and sanitary wastes; and fuels, lubricants, and other toxicants related to construction equipment and its maintenance.

LONG-TERM IMPACTS

5.8-2 *Operation of the Long Point Resort Project has the potential to result in long term effects that could impact marine biological resources. Because the Project incorporates a long-term Runoff Management Plan/Water Quality Management Plan as a Project Design Feature, long term water quality impacts would be minimized. Remaining impacts would be reduced to less than significant levels with incorporation of the specified mitigation measures and compliance with State, County, and City Development Code requirements.*

Construction of coastal projects like a resort development may involve design aspects that could adversely affect shoreline and nearshore marine resources. The Project has taken a proactive approach by including as a design feature a Runoff Management Plan/Water Quality Management Plan which incorporates Best Management Practices that insure there would be no adverse and significant long-term effects on local water quality and subsequent adverse effects on marine biological resources.

Runoff Management Plan/Water Quality Management Plan

In order to reduce potentially significant effects of the operation of the hotel, hotel amenities, casitas, and golf course on water quality and marine resources, a detailed Runoff Management Plan/Water Quality Management Plan (WQMP) (PBS&J, 2000) was prepared and included as a project design feature. The WQMP addresses the current deteriorated drainage systems, improvements to the drainage system to manage stormwater and dry weather runoff, hydrology, and water quality of the resort's runoff. The Plan is summarized below with respect to marine resources, however, is discussed in detail in Section 5.6, *Hydrology and Drainage*.

The WQMP consists of several strategies and a series of Best Management Practices (BMPs) that would provide source control for pollutants as well as treatment of runoff constituents. Features of the Plan include:

- Reducing impermeable surfaces by maximizing landscaped areas and natural areas and minimizing impermeable surfaces such as paved areas, rooftops, and paths. A large section of the site would be golf course that would maximize infiltration of precipitation and other runoff sources.

- Using swales and natural drainages to promote biofiltration of runoff. Two swales would be used on the RHA. On the UPVA, drainage would be conveyed overland either across the golf course or through swales. Offsite runoff would continue to flow through a swale on the site that would be conveyed to the RHA where it would again enter another swale.

- Ground maintenance would limit trash and debris, and internal roads and parking lots on the site would be cleaned weekly by street sweepers.

- Drop infiltration devices would be used at all curb inlets within the internal parking structures to remove oil, grease, debris, and suspended sediments from the water.

- Monitoring of the drop infiltration devices would occur on a monthly interval during the rainy season, following any precipitation event, and at the end of the dry season prior to the first precipitation event of the wet season.

- Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest sewage line and taken to the local sewage treatment plant for treatment rather than being discharged to the ocean.

- Swales and inlets would be sized to accommodate and treat entire first flush events.

- The golf course runoff would be managed through several techniques including (a) computerized irrigation to reduce the amount of runoff and conserve water; (b) using fertilizers that have a low leaching potential, and that would minimize over-fertilizing the golf course; (c) using Integrated Pest Management (IPM) techniques to monitor, treating, and irradicating pests using the least environmentally damaging methods and spot treatment of pesticides to avoid large applications; (d) storage of environmentally hazardous materials in an appropriate building or in areas that limit the hazards of spills and fires; (e) disposing of grass clippings by composting or spread along the golf course in the rough or a wooded area, and properly disposing of solvent, degreasers, pesticides and their containers through a service that would properly recycle or dispose of these chemicals.

- Since many constituents in urban runoff cannot be fully removed by using filtration or other methods, common source control BMPs identified in the California “Municipal” Handbook would be implemented. These include: (a) using informational materials for employees of the resort and guests regarding care of the natural environment (BMP SCO); (b) using proper methods of cleaning up spills and disposal of materials within the resort complex and the golf course maintenance areas (BMP SC10); (c) controlling the storage of hazardous materials so they are inaccessible to storm runoff (BMP SC20); (d) posting storm drain signs that would say “drains to the ocean” (BMP SC30); (e) using recycled oil for maintenance and

security vehicles (BMP SC32); (f) inspecting service vehicles and golf course vehicles (BMP SC40); (g) street cleaning using sweepers on the resort area parking lots (BMP SC70); (h) maintaining the catch basin inlet filtration devices (BMP SC71); (i) using vegetation controls that do not contribute to stormwater runoff pollution (BMP SC72); and (j) inspecting and flushing the storm drains to prevent a buildup of sediment and other pollutants at the energy dissipaters at the ocean outlets.

- A comprehensive Water Quality Monitoring Program would be implemented at several locations along the drainage and at some points of the proposed development. It is also recommended that the ocean waters be tested in the event that any concentrations of pollutants in the stormwater exceed the California Toxics Rule or the California Ocean Plan. If it is determined that the proposed mitigation measures are not sufficient to reduce the concentrations of pollutants, then additional measures would be added to the plan by the Applicant to ensure compliance with all water quality criteria.

Impact Analysis

Project implementation would involve long-term design impacts that, if left unmitigated, could adversely affect shoreline and nearshore marine resources. Impacts associated with the operation of the Long Point Resort Project include (1) degradation of water quality as a consequence of stormwater and dry weather runoff from the Project site and a subsequent degradation of marine habitat and (2) from the direct and indirect effects of increased tourism (visitor use) to the local shoreline. These Project-related issues are analyzed below for the type and degree of environmental effect that they might have on marine resources. Where impacts have been identified, mitigation measures are proposed that would reduce the level of significance to less than significant following implementation of the mitigation measures.

Implementation of the WQMP as a Project Design Feature, compliance with the Standard Urban Stormwater Mitigation Plan (SUSMP) guidelines, and conducting detailed runoff monitoring programs during operation of the Long Point Resort would ensure that potentially significant water quality and hydrological impacts associated with stormwater and dry weather runoff would be less than significant.

Reduced Salinity on Marine Organisms

Changes in salinity related to stormwater discharge and subsequent effects on marine life are a function of many variables. Many of these variables are highly site-specific and can only be predicted through the implementation of water quality and

hydraulic computer modeling programs to predict effects, and then secondly, monitoring of marine organisms. Some of the physical variables that would influence the salinity of the stormwater include volume of flow, velocity of flow, tide condition, temperature, and mixing process (winds, waves, and current).

In general, the range of salinity tolerated by plants and animals living in the sea is less than for organisms living in brackish water, hypersaline water, or brine because they are not as well adapted at maintaining internal ionic balances as organisms that live in widely fluctuating environments.

While the ability of marine forms for tolerance, regulation, and behavior adaptation appears to be more restricted than estuarine forms, they can respond to salinity changes over a small range and for limited periods. Intertidal organisms tolerance to thermal and osmotic shock also decreases at lower tidal levels and, therefore, exposure to stormwater flow during low and minus tides can produce negative impacts, depending on the duration and salinity. Bay et al. (1996) conducted toxicity tests of dry weather flow from the Santa Monica Bay watershed in 1990-1993 using sensitive life stages of purple urchins, red abalone, and giant kelp.

When salinities decrease, motile species such as fish, crustaceans (shrimps, crabs, lobsters), echinoderms (sea stars and urchins), and gastropods (snails) can behaviorally adapt by migrating offshore or into deeper tide pools. Polychaete worms, mollusks (bivalves and snails), and fishes produce a protective mucous coating. Clams, such as mussels and oysters will slow down their metabolism and close their shells. Polychaetes and crabs will retreat into burrows. Bivalves and barnacles may live “indefinitely” in extreme low-or-high average salinities if the length of the active period allowed by short-term salinity fluctuations are sufficient for feeding and defecating.

The rate of recovery of rocky intertidal communities to episodic stormwater runoff disturbances would be dependent upon variables such as the volume and frequency of runoff, the time of year, the degree of mortality, the ability of planktonic larvae to recruit onto surfaces, and the amount and type of habitat affected. Macroalgae may recover physiologically within several hours of the impact, while many organisms would behaviorally adapt by closing their shells (snails and mussels) or burrowing (clams and worms). If an area is denuded, bacteria, algal spores, and invertebrate larvae will begin to recolonize the area but the rate of colonization is dependent upon a series of either seasonal or successional changes from the establishment of bacteria to the climax community of mussels and other plants and invertebrates. For fully denuded areas, splash zone (above the high tide zone) plants and barnacle recovery occurs within one year, upper intertidal species (barnacles, red seaweed and brown seaweed) fully recover within four to eight years, mid-intertidal species (mussels) recover within six to nine years, and low intertidal species (seaweeds, surfgrass, anemones, and polychaetes) rocky intertidal habitats take up to ten years to recover. Early successional stages such as the barnacle *Chthamalus,* and the opportunistic green algae *Ulva* and

Enteromorpha may settle first but are eventually out competed by later stages such as the barnacle *Balanus,* and the red algae *Gigartina* and *Rhodymenia*. Other disturbances may occur and push back the recovery process. For example, continual runoff and constant low salinities in the intertidal zone would delay the recovery process and keep the community in a constant state of disturbance.

Full recovery of subtidal reef-associated organisms from disturbances may take between one and ten years, depending on the type of disturbance and the frequency of the disturbance. Repeated disturbances result in unstable and low diversity communities.

Reduced Salinity Impacts on Intertidal Organisms

Reduced salinity in stormwater would have a less than significant impact on nearshore marine resources with the inclusion and implementation of the Runoff Management/Water Quality Management Plan. Urban runoff would flow onto the backshore of the shoreline at the south and southeast end of the Project area at Discharge I and Discharge II. These discharges would be 1,100 feet apart and would have energy dissipaters to reduce the energy and velocity of flow onto the beaches. The distance between the two discharges would assist in preventing a combined discharge effect. The Q_{50} (peak flows during a 50 year storm) for Discharge I and Discharge II are anticipated to be 740 and 360 cfs, which are 43 percent and 39 percent higher than pre-project discharge rates. The increase for Discharge I is higher because the tributary area is greater, and greater for Discharge 2 because of both an increase in tributary area as well as an addition of impermeable surfaces from the development of the site. While the increases appear to be substantial over pre-project conditions, the runoff time sequences determined for these discharges are relatively short, and in all cases last for 20 to 30 minutes. Given the facts that: (1) the discharge duration of even the worse-case 50 year storms would be relatively short; (2) that the discharge of runoff would occur within a high energy and well mixed nearshore zone; and (3) marine intertidal organisms are generally well adapted to short term variations in salinity and temperature, the potential for adverse effects related to decreases in ambient salinity of rocky intertidal organisms is relatively low, and short-term, and less than significant.

Prolonged exposure, as a result of significant storms over time, would likely increase the potential for deleterious effects on tide pool organisms. These events would likely occur during years of higher rainfall, such as those periods when the El Nino Oscillation Events produce storms that are of longer duration and of greater intensity. These storms would not only affect the local area, but rocky intertidal areas along the coastline.

Nuisance flows would only be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, rocky intertidal life would not be

affected by any dry weather runoff. Between October 15th and April 15th (the annual period when rainfall is highest) nuisance runoff with a lower salinity would mix with normal rainwater runoff that would flow into the marine environment. The runoff would be dissipated with ambient salinity ocean water through tidal action and ocean current mixing processes.

In the event that wave action during large storms, high tides, and storm surges damage shoreline dissipaters and storm drain pipes on the shoreline, the effect on intertidal resources would be a short-term increase in exposure to higher velocity freshwater discharges and sediment flows. The discharge could erode sediments from the backshore, and potentially bury or scour rocky intertidal habitat that could result in some localized mortality of intertidal invertebrates. This would be a localized significant adverse effect on intertidal marine life. Recovery could take up to several years. Placement of a stormdrain pipe and dissipater structure at a higher elevation may mitigate any potential losses due to significant storm event that would damage storm drain structures.

Reduced Salinity Impacts on Nearshore Water Column and Benthic Marine Communities

Due to the short duration of projected high-flow stormwater runoff events, water column and benthic nearshore marine resources would not be significantly impacted by stormwater runoff that reduces ambient salinity levels. Short-term changes in fish behavior or feeding strategies could be affected, if a freshwater lens persisted within the surface layer for an extended period of time or extended to the seafloor. Benthic invertebrates may temporarily be exposed to slightly reduced salinities, but the short duration exposure would not result in significant adverse impacts to populations of benthic invertebrates or benthic fishes.

Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, nearshore water column and benthic marine fishes would not be affected by any dry weather runoff from the Project site.

Reduced Salinity Impacts on Listed and Non-Listed Marine Birds

Reduced salinity as a result of stormwater runoff events would have no significant effects on shorebirds and seabirds. These guilds will forage in fresh and/or saltwater habitat or can move to areas unaffected by stormwater runoff.

Reduced Salinity Impacts on Listed and Non Listed Marine Mammals

Reduced salinity as a result of stormwater runoff events would have no significant effects on marine mammals. Pinniped food resources would not be affected by

reduced salinities and cetaceans transiting along the coast would not be physiologically or behaviorally affected.

Reduced Salinity Impacts on Sensitive Habitats

No adverse significant impacts on seagrass beds, kelp beds, or Marine Managed Areas are anticipated as a result of Project urban runoff hydrology. The short duration of expected high flows and the high energy nature of the coastal waters within the area would assist in the mixing process and would counteract the influence of the stormwater flow into the marine environment**.** Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, sensitive marine habitats would not be affected by any dry weather runoff from the Project site.

Urban Runoff Effects on Rocky Intertidal Organisms

As previously described, and in the discussion that follows, runoff from urbanized and increasingly urbanized areas of Los Angeles County has a potential to degrade ocean water quality that would have direct and negative effects on marine life. Degradation would potentially occur as a function of chemical toxicity, reduced water clarity, aesthetics, a pulsed decrease in water salinity and subsequent die-off organisms unable to tolerate rapid changes in salinity. In light of the potential for adverse effects, the Long Point Resort Project incorporates specific Best Management Practices within the WQMP to minimize and avoid adverse impacts to local water quality and marine biological resources. The following discussion provides an overview of the sources and types of urban runoff effects on marine life.

Sources of Contaminants. In general, sources of contaminants in runoff include household and industrial wastes, accidental spills, sewer overflows, septic tank leaks, illegal and illicit connections, excess runoff and chemicals from landscape irrigation, rubbish, used crankcase oil, grease, food by-products, wash water, debris discarded from the street, animal droppings, and settled air pollutants (Santa Monica Bay Restoration Project [SMBRP] 1994). Street runoff carries metal, rubber, and oil residues from highways, while garden runoff carries pesticides. Urban runoff consists of a combination of both naturally occurring dissolved constituents and contaminants. These are of concern because they can be directly toxic to marine organisms or accumulate in their tissues and make them unfit for human consumption. The most common naturally occurring compounds are dissolved solids (such as calcium carbonate, bicarbonate, sulfate, chloride, calcium sodium, magnesium and organic carbon) and metals (such as barium, iron and manganese). These constituents are generally not harmful to marine organisms at normal concentrations.

Toxicity in Urban Runoff. Compounds found in urban runoff varies with land use practices. Impervious areas (paved surfaces) contribute high concentrations of oils

and grease and heavy metals (zinc, lead, copper, cadmium, mercury, and nickel) while landscaped areas (lawns, open spaces) contribute higher concentrations of nutrients (nitrates, ammonia, phosphates), pesticides, and herbicides. Filter feeding intertidal organisms have a particularly high potential for bioaccumulating pesticides such as DDT, complex chlorinated hydrocarbons such as PCBs and organometallic compounds such methy-mercury. These organohalide toxicants are usually associated with the fine settleable solid fraction of runoff containing fine silt materials. Many intertidal organisms are less able than vertebrates to transform organic and metal contaminants into less toxic forms.

Most contaminants that enter drainages and other water bodies are generated during the first major storm event of the season. This first flush effect creates an immediate pulse in the concentration of contaminants and debris that accumulate in street gutters and streets during the previous dry season. Dry weather runoff flow volumes from developments (irrigation, car washing, and pavement cleaning) when compared to stormwater runoff are substantially lower in volume but still can contain substantial concentrations of toxicants and debris such as grass clippings, motor oils, household pesticides, and drainage from road drips and accidental spills.

Organic enrichment due to accidental wastewater overflow into the local storm drains may occur. These flows would result in short-term water degradation and bacterial contamination of the shoreline and nearshore waters. Urban wastewater also can carry significant amounts of suspended sediments eroded during storms. In addition, accumulations of trash and debris can temporarily limit light availability in the water column. Styrofoam and plastic bags are known to be ingested by fishes, seabirds, and marine mammals.

Because there is no means of treating surface runoff at present (other than tying the system into a municipal wastewater facility system which is planned for the dry weather period for the Resort), source control and implementing public education and involvement programs are the primary practices to reduce the level of contamination in urban runoff.

Studies suggest that both dry and wet season stormwater runoff events have the potential to cause environmental effects to organisms at some defined levels of toxicity and that a stringent urban runoff/water quality management plan is required to protect water quality and marine resources of the Project area (refer to Appendix 15.8, *Marine Resources Report*, for a summary of referenced studies).

The primary components of stormwater that could affect local marine life in the vicinity of Long Point include eroded sediments, nitrogen and phosphorous concentrations, pesticides and herbicides, petrochemicals, heavy metals, and organic debris, and decreased water salinity . Increasing the amount of impervious surfaces (roofs, streets, sidewalks, parking areas, and drive- ways) would also increase the amount of runoff from the Project property. A large portion of the Long Point development area would be retained as natural or developed open area (a

golf course); these areas would be fertilized and managed for pests and weeds. The introduction of nutrients, treatment applications for pests and weeds into the soils, and runoff from the golf course is a potential concern because these materials could be transported to the shoreline and discharged into ocean waters. Design plans for the storm drain systems include provisions for the removal of the majority of oil, grease, debris, and other constituents commonly found in urban runoff. However, the system would not be able to reduce the concentrations of nutrients, or organic/metal contaminants in the runoff. Source control BMPs are the most likely way to achieve lower levels of these contaminants.

The WQMP for the Long Point Resort Project minimizes and avoids potential long-term impacts of the discharge of harmful contaminants to the ocean, a reduction of marine habitat values in the vicinity of the discharge, reductions in the diversity of intertidal and benthic soft bottom invertebrates, reef plants, invertebrate and fishes, a potential reduction of seagrass and kelp bed productivity in the vicinity of the discharge, long-term accumulation of contaminants in the food web, and human health risks.

Urban Runoff Effects on Intertidal Marine Resources

Contaminants contained in urban runoff would have short-term and less than significant impacts on rocky intertidal habitats and communities. The discharge of urban runoff and contaminants from the Project site is expected to have short-term and less than significant impacts on rocky intertidal habitats and marine organisms because concentrations of contaminants are expected to meet California Toxics Rule standards for undiluted stormwater and, in the majority of cases, the California Ocean Plan as a result of the implementation of the Runoff Management/Water Quality Management Plan. Periodic episodes of higher turbidity would accompany urban runoff into the intertidal zone. If not mitigated, the combination of factors, could potentially cause metabolic stresses to intertidal plants, invertebrates, and fishes.

Discharge I and Discharge II are sufficiently separated (approximately 1,100 feet apart) to prevent mixing of the two runoff plumes from these sources, and only in the very rare instances of extremely high runoff would potential mixing occur. In instances where runoff concentrations exceed Ocean Plan discharge requirements, immediate and rapid dilution of the runoff should be adequate to reduce concentrations to levels that would not be harmful to marine organisms.

Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, no urban water runoff impacts to rocky intertidal systems related to the presence of contaminants would occur between spring to early fall periods.

Strict adherence to, and proper implementation of identified source controls and Project BMPs contained within the Runoff Management/Water Quality Management Plan would result in short-term and less than significant impacts on local shoreline habitats and intertidal communities.

Urban Runoff Effects on Nearshore Water Column and Benthic Marine Resources

Urban runoff contaminants would have short-term and less-than-significant adverse impacts on nearshore water column and benthic resources. Under normal conditions, and with the inclusion of stringent Runoff Management/Water Quality Management Plans, the level of contaminants expected to be contained within the storm water discharge would be very low and would not significantly impact populations of fishes or benthic invertebrates. Turbidity may temporarily increase due to the runoff characteristics, but the plume would be dissipated quickly due to the high wave energy environment. Strict adherence to, and proper implementation of identified source controls and Project BMPs contained within the Runoff Management/Water Quality Management Plan would result in short-term, and less than significant impacts on water column and benthic communities.

Since nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system, no urban water runoff impacts on water column and benthic organisms related to the presence of contaminants would occur between spring to early fall periods.

Urban Runoff Effects on Listed and Non Listed Species of Shorebirds

Contaminants contained in urban runoff would have less than significant impacts on shorebirds and seabirds. The level of contaminants expected to be contained within the storm water discharge would be very low and would not significantly impact populations of shorebirds or seabirds that may come in contact with the water through ingestion of water, their prey, or physical contact. Shorebirds and seabirds do not concentrate their foraging within particular areas of the coastline which further reduces the likelihood that they would be adversely affected.

Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, no urban water runoff impacts on seabirds related to the presence of contaminants would occur between spring to early fall periods.

Urban Runoff Effects on Listed and Non Listed Species of Marine Mammals

Contaminants contained in urban runoff would have a less than significant adverse impact on marine mammals. The anticipated low level of contaminants that would be discharged within the urban runoff would not adversely affect pinnipeds or cetaceans that may temporarily be in the Project area. No food web biomagnification effects would occur, since BMPs and source controls contained within the WQMP would reduce the concentration of contaminants to acceptable discharge levels. Short-term turbidity increases would not substantially affect the foraging or movement patterns of any marine mammal located within the Project area.

Nuisance flows would be diverted during the dry season between April 15th and October 15th to the nearest wastewater line and disposed of through the County of Los Angeles Sanitation District system. Therefore, no urban water runoff impacts on marine mammals related to the presence of contaminants would occur between spring to early fall periods.

With the inclusion of a strictly implemented Runoff Management/Water Quality Management Plan, accidental spills of concentrated hydrocarbons, pesticides, herbicides, and other contaminants would have a less than significant impact on marine resources. Accidental, concentrated spills of hydrocarbons, pesticides, herbicides that reach the intertidal zone and nearshore waters have a high potential to cause plant and animal mortality that would result in long term degradation of the intertidal community or reef habitats. These events would result in a significant long-term adverse impact to marine organisms, including sensitive species of kelp and surfgrass with recovery times that could range between one and ten years. Strict adherence to, and proper implementation of identified source controls and Project BMPs contained within the WQMP would reduce the reduce the likelihood of accidental spills of hazardous materials or known contaminants from reaching the shoreline and coastal waters.

Long-Term Water Quality and Marine Resource Monitoring Program

While Project-level effects are anticipated to be mitigated through the inclusion and implementation of the WQMP, a comprehensive water quality and marine resources monitoring program should be conducted for a period of five years following completion of resort construction to ensure that source controls and BMPs within the PDFs are satisfactorily protecting the beneficial uses of the receiving waters and marine life. Yearly monitoring reports would detail the results of the field surveys. If the yearly conclusions indicate that water quality and/or the marine life in the vicinity of the Long Point Resort has been adversely affected, then adaptive management strategies would be implemented to correct runoff control deficiencies. If at the end of the fifth year the results indicate that the beneficial uses of the receiving waters are being attained, the monitoring program would be deemed completed.

The monitoring program should include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program should include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. Marine biological surveys should be conducted to document the health of key rocky intertidal species, rocky habitat quality in the vicinity of the discharges, surfgrass distribution, and nearshore kelp bed characteristics within the immediate vicinity (less than a radius of one nautical mile) from each of the two discharges.

VISITOR USE

5.8-3 *The development of the Long Point Resort hotel facilities, amenities, and golf course could potentially draw a considerable number of both local and out of town guests. Activities such as sunbathing, snorkeling, scuba diving, and fishing would increase the recreational use value of the area shoreline. Implementation of the recommended mitigation measures, including development of a visitor use plan, would reduce potential impacts to a less than significant level.*

Over 100 species of plants, invertebrates, and fishes have been documented within the tide pools along the Rancho Palos Verdes shoreline. Increased use of the tide pools by nature enthusiasts, fishermen, and potential poachers, could conceivably create additional pressures on the rocky intertidal and shallow subtidal habitats. This could contribute to long-term habitat degradation and reduction in rocky intertidal biodiversity through:

- The taking (collecting) of the larger, more conspicuous invertebrates (i.e., chitons, mussels, turban snails, sea stars, and wavy top snails);
- Trampling and smothering of turf-forming algae (i.e., *Gelidium/Corallina* complexes) and small, delicate upright species of algae (i.e., *Gigartina, Rhodymenia, Callophyllis*); colonial invertebrates (i.e., reef building worms, clonal anemones, and mussels) and inconspicuous soft-bodied invertebrates (anemones, sea hares, nudibranchs, sponges, and tunicates); and
- Increased fishing pressure on reef-associated species such as opaleye perch and kelp bass.

Without a visitor use plan, the potential impacts from increased visitor use would be a significant and long-term reduction in the value of the intertidal habitat. Intertidal marine resources in southern California are in a steady state of deterioration because of unmanaged or under-managed policies which regulate these areas.

Visitor Use Impacts on Shoreline Resources

Increased visitor use of the Long Point and Fisherman Cove shoreline could potentially result in an adverse, significant impact on rocky intertidal habitat and organisms. The Long Point and Fisherman's Cove rocky intertidal habitat could be degraded as a result of the development of the Long Point Resort. Of the two regions, the most accessible to the general public and the one that has a higher species richness and diversity is Fisherman's Cove. The primary periods of increased visitor use would be from Memorial Day to Labor Day and during low tide between November and February. Visitors would access the shoreline from access paths to Long Point, and from the parking lot at Fisherman's Cove. Visitor activities that would be expected along the shoreline include tide pooling, walking, sitting, and collecting plants and animals.

The resulting impacts due to increased visitor intensity would be a significant and long-term reduction in the value of the intertidal habitat. Intertidal marine resources in southern California are in a steady state of deterioration because of unmanaged or under-managed policies which regulate these areas. However, implementation of recommended mitigation measures would reduce impacts associated with visitor use to a less than significant level.

CUMULATIVE

5.8-4 *Project implementation would result in a long-term cumulative impact on marine biological resources related with visitor use and water quality degradation. Impacts would be reduced to a less than significant level with implementation of recommended mitigation measures.*

The proposed Long Point Resort Project would have a long-term cumulative impact on marine biological resources as a result of:

- Potential visitor increases in the use of the rocky intertidal habitat at Long Point and Fisherman's Cove above the levels that presently exist. These impacts would include increased visitor-induced damage to intertidal and subtidal marine organisms as a result of increased trampling and the illegal taking of plants, invertebrates, and fishes. This effect would be mitigated by the implementation of the Habitat Reserve Designation for Planning Area 1-A, the preparation and implementation of a Marine Resources Management Plan, and a 5-year monitoring program to assess Project effects on marine life.

- Potential water quality degradation in the vicinity of Long Point and Fisherman's Cove. The cumulative impacts of water quality degradation could, potentially occur as a result of an increase in storm water and nuisance water runoff into the ocean from this and other

future planned developments on the Rancho Palos Verdes Peninsula. However, with the continual updating in technology of source controls and BMPs contained in the Runoff Management/Water Quality Management Plan, the cumulative impacts of this Project, in association with other planned projects on the Palos Verdes Peninsula is anticipated to be a long-term, but less than significant effect on local water quality and local marine resources along the Rancho Palos Verdes shoreline.

Implementation of the specified mitigation measures would ensure that cumulative effects are minimized. In addition, a more effective enforcement program for protecting marine life along the Palos Verdes Peninsula at the city, county, and state levels would assist in preventing a long-term cumulative degradation of shoreline marine life.

MITIGATION MEASURES

The following mitigation measures correspond to the numbered impact statement in the impact analysis discussion.

CONSTRUCTION

5.8-1a Prior to Grading Permit issuance, the Project Applicant shall prepare/implement the following: (1) Storm Water Pollution Prevention Plan (SWPPP); (2) Best Management Practices (BMPs) identified within the State of California "California Storm Water Best Management Practice Handbook for Construction Activity"; and (3) Construction Erosion Control Plan prior to site construction.

These plans and documents shall identify dry season and wet season runoff control measures, source control, and or treatment controls that avoid and/or mitigate potential soil erosion, runoff pollutants, and other stormwater constituents.

5.8-1b Prior to Grading Permit issuance, a Storm Water Pollution Prevention Plan shall be prepared by the Applicant. This Plan shall identify source control and/or treatment control BMPs that avoid and/or mitigate runoff pollutants at the specific site to the "maximum extent practical". BMPs shall be developed to mitigate for potential adverse impacts from nutrients, heavy metals, toxic chemicals related to construction and cleaning; waste materials such as concrete wash water, paints and paint equipment, wood, paper and concrete materials related to building materials and packaging, food containers and sanitary wastes; and fuels, lubricants, and other toxicants related to construction equipment and its maintenance.

5.8-1c Prior to Grading Permit issuance, an Erosion Control Plan shall be prepared by the Applicant and submitted to the City of Rancho Palos Verdes for approval. Specific BMPs in the Erosion Control Plan shall include:

- Water trucks shall be used during all grading activities to prevent visible dust emissions.
- All trucks hauling debris or excavated materials shall be covered or maintain at least 2 feet of freeboard;
- No grading shall occur during periods of high velocity winds exceeding 30 miles per hour;
- Enclose, cover, water twice daily, or apply non-toxic chemical stabilizers to exposed stockpiles with five percent or greater silt content.
- During the rainy season (October-April) or if slopes are generally exposed to erosion, the slopes shall be stabilized and compacted, and/or temporarily hydroseeded.
- Silt fencing, hay bales, sand bags, temporary detention basins, and other methods that prevent the transport of dust or eroded soils into the marine environment shall be implemented.
- During the rainy season, silt fences shall be installed around the perimeter of the construction site until all grading has been completed.
- The construction site shall be monitored by a state-licensed civil engineering firm during construction activities and any storm events to ensure that all BMPs have been implemented and that the BMPs are effective at minimizing and avoiding dust generation or the transport of stormwater into the marine environment.

5.8-1d Prior to commencement of grading/construction activities, contractors shall provide workers with specific guidelines to avoid and minimize disturbances to the rocky intertidal habitat and associated plant and animal communities while working on the beaches in the Project area and to remove all debris from the shoreline following completion of impact sill construction.

5.8-1e In addition to standard BMP's employed for storm drain construction, the following BMPs shall be implemented during grading/construction

activities to ensure that impacts to shoreline habitats and shoreline organisms are avoided:

- All beach vehicular movement shall be limited to the backshore environment behind the beach berm.

- All construction debris shall be removed from the site as often as deemed necessary by the City's Construction Monitor to prevent the material from being washed out to sea on the high tides.

- Coastal protection devices shall minimize intrusion into sand beach habitat. Any sand beach habitat that is disturbed during the construction habitat shall be restored to its natural state following the completion of construction.

5.8-1f A construction-period Water Quality Monitoring Program shall be implemented that would include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. If it is determined that tide pool or ocean water quality has been degraded by construction activities, then adaptive management techniques shall be implemented to correct water quality violations in order to prevent adverse effects on marine organisms.

LONG-TERM

5.8-2 A comprehensive Water Quality and Marine Resources Monitoring Program shall be conducted for a period of five years following completion of resort construction to ensure that source controls and BMPs are satisfactorily protecting the beneficial uses of the receiving waters and marine life. Yearly monitoring reports shall detail the results of the field surveys. If the yearly conclusions indicate that water quality and/or the marine life in the vicinity of the Long Point Resort has been adversely affected, then adaptive management strategies shall be implemented to correct runoff control deficiencies. If at the end of the fifth year the results indicate that the beneficial uses of the receiving waters are being attained, the monitoring program shall be deemed completed.

The Monitoring Program shall include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore

waters offshore of the Long Point Resort prior to, during, and following the grading activities. Marine biological surveys shall be conducted to document the health of key rocky intertidal species, rocky habitat quality in the vicinity of the discharges, surfgrass distribution, and nearshore kelp bed characteristics within the immediate vicinity (less than a radius of one nautical mile) from each of the two discharges.

VISITOR USE

5.8-3a The intertidal resources of the Fisherman's Cove and east to the tip of Long Point shall be actively managed on an on-going basis by the City of Rancho Palos Verdes and the Applicant to offset potentially significant impacts to intertidal marine resources. This area shall be managed as part of Conservation Area 1-A in association with the westerly bluffs below the bluff-top edge of the RHA. The area shall be designated as a Habitat Reserve. Although recreational fishing for fin fish is permitted, the Habitat Reserve Designation shall restrict certain uses below the resort hotel including commercial fishing, the collection of invertebrates, and the disturbances of plants, birds, and other animal life.

5.8-3b Prior to Occupancy Permit issuance, the City and the Applicant shall work with a qualified marine biologist to develop a Long-term Shoreline Resource Management Plan that identifies and details the means by which visitor use of the rocky outcrops of the Project area shall be actively managed. At a minimum the plan shall implement monitoring and enforcement of protected regulations herein: (1) signage; (2) enforcement of posted regulations; (3) on-site naturalists or other personnel to enforce regulations and to cite violators; (4) educational and docent programs; and (5) areas of restricted or no access.

5.8-3c Prior to Occupancy Permit issuance, the Applicant shall develop an educational booklet for hotel guests that provides ways to prevent ecological damage to the intertidal and subtidal habitats.

5.8-3d Prior to Occupancy Permit issuance, the Applicant shall develop an interpretive display at the hotel/resort that informs visitors of the area’s natural resources and provides suggestions for minimizing damage to these resources.

5.8-3e Prior to Occupancy Permit issuance, the Applicant shall post simple, but direct and enforceable signage in multiple languages at all access points to the rocky intertidal habitats from the residential and resort areas to advise the public of the area’s ecological value and to help prevent degradation of the intertidal habitat.

5.8-3f Prior to Occupancy Permit issuance, the Applicant and the City of Rancho Palos Verdes shall provide training for and enforcement of the Habitat Reserve shoreline on a daily basis during the summer and on weekends during the winter months between Labor Day and Memorial Day. Enforcement personnel shall have the authority to enforce local statutes and State of California laws regarding fishing limits and the illegal take of marine plants and animals.

5.8-3g The Project Applicant shall conduct intertidal monitoring studies to document the effects of visitor use and storm drain discharges on the Habitat Reserve intertidal and marine life. In association with surveys being conducted to assess runoff effects on marine life, the visitor use monitoring program shall include quarterly (four times/year) monitoring surveys of beach and rocky intertidal habitat use and concurrent intertidal biological resource surveys over a five-year post-construction monitoring period to determine if the management program is effective at preventing degradation of the intertidal communities. Methodology to be used shall be consistent with other long-term intertidal monitoring programs within Southern California and shall be approved by the California Department of Fish and Game.

Annual reports shall be prepared and the management plan's objectives shall be evaluated and updated as necessary to ensure protection of the intertidal resources. If it is determined through survey results that after the first five years the overall management program is not effective in reducing the degradation of intertidal habitat, a written assessment of the management plan shall be prepared by the assigned marine biologist(s). This assessment shall prescribe alternative methods for improvement of habitat quality and health. The assessment report/revised program shall be reviewed by the City of Rancho Palos Verdes prior to implementation of alternative methods. The assessment/revised program shall be prepared and submitted for review prior to the completion of the sixth year after implementation of the original Resource Management Plan.

CUMULATIVE

5.8-4 Refer to Mitigation Measures 5.8-1, 5.8-2 and 5.8-3.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts to marine biological resources are reduced to a less than significant level with implementation of mitigation measures.

5.9 NOISE

The purpose of this Section is to analyze Project-related noise source impacts on-site and to surrounding land uses. Mitigation measures are also recommended to minimize the noise impacts of the Project. This Section evaluates short-term construction related impacts as well as long-term buildout conditions. Information in this Section was obtained from the *City of Rancho Palos Verdes General Plan* and traffic information contained in the Project Traffic Study (refer to Section 5.12, *Traffic and Circulation*, and Appendix 15.12, *Traffic Impact Analysis*). Refer to Appendix 15.9, *Noise Data*, for the assumptions used in this analysis.

EXISTING CONDITIONS

NOISE SCALES AND DEFINITIONS

Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the Decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been revised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples, of various sound levels in different environments are shown in Table 5.9-1, *Sound Levels and Human Response.*

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time. These methods include: 1) the Community Noise Equivalent Level (CNEL); 2) the Equivalent Sound Level (Leq); and 3) Day/Night Average Sound Level (Ldn). These methods are described below.

TABLE 5.9-1
SOUND LEVELS AND HUMAN RESPONSE

NOISE SOURCE	dB(A) Noise Level	RESPONSE
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff *(200 ft.)* Discotheque	120	
Unmuffled Motorcycle Auto Horn *(3 ft.)* Rock'n Roll Band Riveting Machine	110	Maximum Vocal Effort Physical Discomfort
Loud Power Mower Jet Takeoff *(2000 ft.)* Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck *(50 ft.)* Pneumatic Drill *(50 ft.)*	90	
Alarm Clock Freight Train *(50 ft.)* Vacuum Cleaner *(10 ft.)*	80	Annoying
Freeway Traffic *(50 ft.)*	70	Telephone Use Difficult
Dishwashers Air Conditioning Unit *(20 ft.)*	60	Intrusive
Light Auto Traffic *(100 ft.)*	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper *(15 ft.)*	30	Very Quiet
Broadcasting Studio	20	Just Audible
	10	Threshold of Hearing

Source: Melville C. Branch and R. Dale Beland, *Outdoor Noise in the Metropolitan Environment*, 1970 (page 2), and others.

Community Noise Equivalent Level (CNEL)

The predominant community noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL reading represents the average of 24 hourly readings of equivalent levels, known as Leq's, based on an A-weighted decibel with upward adjustments added to account for increased noise sensitivity in the evening and night periods. These adjustments are +5 dBA for the evening, 7:00 p.m. to 10:00 p.m., and +10 dBA for the night, 10:00 p.m. to 7:00 a.m. CNEL may be indicated by "dBA CNEL" or just "CNEL".

Leq

The Leq is the sound level containing the same total energy over a given sample time period. The Leq can be thought of as the steady sound level which, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same period. Leq is typically computed over 1, 8 and 24-hour sample periods.

Day Night Average (Ldn)

Another commonly used method is the day/night average level or Ldn. The Ldn is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the Leq. The Ldn is calculated by averaging the Leq's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 p.m. to 7:00 a.m.), by 10 dBA to account for the increased sensitivity of people to noises that occur at night. The maximum noise level recorded during a noise event is typically expressed as Lmax. The sound level exceeded over a specified time frame can be expressed as Ln (i.e., L_{90}, L_{50}, L_{10}, etc.). L_{50} equals the level exceeded 50 percent of the time, L_{10} ten percent of the time, etc.

As previously mentioned, people tend to respond to changes in sound pressure in a logarithmic manner. In general, a 3 dBA change in sound pressure level is considered a "just detectable" difference in most situations. A 5 dBA change is readily noticeable and a 10 dBA change is considered a doubling (or halving) of the subjective loudness. It should be noted that a 3 dBA increase or decrease in the average traffic noise level is realized by a doubling or halving of the traffic volume, or by about a 7 mile per hour (mph) increase or decrease in speed.

For each doubling of distance from a point noise source, the sound level will decrease by 6 dBA. In other words, if a person is 100 feet from a machine, and

moves to 200 feet from that source, sound levels will drop approximately 6 dBA. For each doubling of distance from a line source, like a roadway, noise levels are reduced by 3 to 5 decibels, depending on the ground cover between the source and the receiver.

Noise Attenuation

Noise barriers provide approximately a 5 dBA noise reduction (additional reduction may be provided with a barrier of appropriate height, material, location and length). A row of buildings provides up to 5 dBA noise reduction with a 1.5 dBA reduction for each additional row up to a maximum reduction of approximately 10 dBA. The exact degree of noise attenuation depends on the nature and orientation of the structure and intervening barriers.

NOISE STANDARDS

It is difficult to specify noise levels which are generally acceptable to everyone. What is annoying to one person may be unnoticed by another. Standards may be based on documented complaint activity in response to documented noise levels, or based on studies on the ability of people to sleep, talk, or work under various noise conditions. All such studies, however, recognize that individual responses vary considerably. Standards usually address the needs of most of the general population.

State Noise Standards

The State of California Office of Noise Control has established guidelines for acceptable community noise levels which are based on the CNEL rating scale. The guidelines rank noise land use compatibility in terms of “normally acceptable”, “conditionally acceptable”, and “clearly unacceptable” noise levels for various land use types. As shown in Table 5.9-2, *California Land Use Compatibility Noise Guidelines*, a project in the “normally acceptable” category would be acceptable in terms of both its indoor/outdoor noise exposure without special noise abatement measures. Where outdoor noise exposure is less important, projects can be designed to provide acceptable interior environments in the “conditionally acceptable” category. This may involve providing air conditioning so that windows can remain closed, or, at higher levels, sound rated windows and walls. Acoustical reports are recommended to be required where the noise exposure is “conditionally acceptable” or “normally unacceptable.”

TABLE 5.9-2
CALIFORNIA LAND USE COMPATIBILITY NOISE GUIDELINES

Land Use Category	COMMUNITY NOISE EXPOSURE Ldn or CNEL dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	70 - 85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 - 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	NA	70 - 80	80 - 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

Notes:

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements needed to mitigate the unacceptable noise levels must be made and needed noise insulation features must be included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

NA: Not applicable.

Source: Office of Noise Control, California Department of Health.

As shown in Table 5.9-2, the State Office of Noise Control, in its Land Use Compatibility Standards, defines an outdoor level of 60 dBA CNEL or less as being "normally acceptable" for residential uses. The intent of the 60 dBA CNEL level is partly to provide acceptable outdoor levels. A 60 dBA CNEL is generally considered to be an appropriate exterior level near roadways where outdoor use is a major consideration, such as in backyards, recreation areas in residential projects, and many park areas. A second intent of the 60 dBA CNEL standard is to provide, either through design, location, or insulation, for interior noise levels no greater than 45 dBA CNEL, which is generally accepted as the maximum acceptable noise level for most indoor residential activities.

State Noise Insulation Standards are consistent with the Office of Noise Control residential Land Use Compatibility standards. In 1974, the State adopted Noise Insulation Standards (Title 25, State Administrative Code) for new hotels, motels, and dwellings other than single-family detached dwellings. Those standards established 45 dBA CNEL as the maximum interior sound level (attributable to exterior sources) in any room. Where exterior sound levels are 60 dBA CNEL or above, acoustical analyses for projects are required to ensure that the structure has been designed to limit outside noise to the allowable interior levels. The State Noise Insulation Standards also include standards to be met for sound transmission between units.

Local agencies may regulate noise levels of most sources not regulated by the Federal government, may provide standards for insulation of noise receivers either within the structure or by placement of noise barriers such as walls, and, through land use decisions, may reduce noise impacts by separating noise generators from noise sensitive uses.

LOCATION OF SENSITIVE RECEPTORS

Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours.

Existing sensitive receptors within the vicinity of the Upper Point Vicente Area (UPVA) include residential uses to the north (both north and south of Hawthorne Boulevard), and northeast of the Project area. Sensitive receptors currently are not located along Palos Verdes Drive West adjacent to the proposed UPVA. Near the proposed Resort Hotel Area (RHA), sensitive receptors include the Salvation Army Regional Training Center and several residences to the north of Palos Verdes Drive South, and residences immediately to the east. Also see additional information regarding the location of sensitive receptors under the existing traffic noise discussion.

EXISTING NOISE ENVIRONMENTS

Field Measurements

In order to quantify existing ambient noise levels in the Project area, noise measurements were conducted by RBF Consulting during March 1999. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site.

Noise monitoring equipment used for the ambient noise survey consisted of a Larson Davis Laboratories Model LDL 820 sound level analyzer equipped with a Bruel & Kjaer (B&K) Type 4176 ½" microphone. The instrumentation was calibrated prior to use with a B&K Type 4230 acoustical calibrator to ensure the accuracy of the measurements, and complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. The results of the field measurements are indicated in Table 5.9-3, *Noise Measurements.* As shown in this Table, noise levels along portions of Palos Verdes Drive South and near City Hall exceeded 70 dBA CNEL. The highest noise level measurement (79.3 dBA) was taken at Site 2 at City Hall, adjacent to the City Park tennis courts.

Computer Modeling

The existing and future roadway noise levels within the vicinity of the proposed Project were projected using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (e.g., number of lanes), the roadway width, the average daily traffic (ADT), the vehicle travel speed, the percentages of auto and truck traffic, the roadway grade, the angle-of-view, the site conditions ("hard" or "soft"), and the percent of total ADT which flows each hour throughout a 24-hour period. The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from the Project Traffic Study.

A 40 to 50 mile per hour (mph) average vehicle speed was assumed for existing conditions (varies depending on roadway) based on empirical observations and posted maximum speeds along the adjacent roadways. ADT estimates were obtained from the Project traffic report (refer to Appendix 15.12, *Traffic Impact Analysis*).

TABLE 5.9-3
NOISE MEASUREMENTS
(Based on Field Measurements)

Site No.	Location	Distance & Direction to Nearest Receptor	Distance & Direction to Nearest Street	Leq (dBA)	Time/Comments
1	Via La Cresta: on bluff overlooking City Hall	Across street from existing residential	Above Hawthorne on bluff - 10 feet from Via La Cresta	79.0	1:35 pm Normal truck traffic on Hawthorne, One helicopter overflight
2	City Hall: adjacent to City park near tennis courts	Existing residential 1/4 mile below	100 feet south of Hawthorne	79.3	2:05 pm Ongoing tennis activity, One diesel serve truck drove by
3	Northern boundary of City Hall: along un-named street	Across street from existing church and residential	200 feet east of Palos Verdes Drive South	52.7	2:15 pm One airplane overflight
4	Palos Verdes Drive South: adjacent to Subregion 1	Existing residential across roadway	10 feet from travelway of Palos Verdes Drive South	68.8	2:47 pm Heavy traffic on roadway; construction grading on Subregion 1
5	Coast Guard Reservation Dirt Lot	Distant	250 feet from Palos Verdes Drive South	53.57	3:02
6	Turn-out along Palos Verdes Drive South: directly west of Marineland	Distant	25 feet from travelway of Palos Verdes Drive South	62.6	3:15 pm Normal traffic
7	Marineland parking lot	½ to 3/4 mile to the east	½ to one mile	56.0	3:38 pm Few cars driving in parking lot
8	Palos Verdes Drive South: directly across from Marineland entrance	Existing residential 200 feet below on high bluff	On curb of Palos Verdes Drive South	74.5	3:48 pm Heavy traffic
9	Nantasket Drive: immediately adjacent to agricultural portion of Marineland	Residential across street to the east	On curb of Nantasket Drive	56.5	4:15 pm Few cars; light pole making constant buzzing sound
10	Channelview Street east of Marineland entrance	Existing residential across street	Just below Palos Verdes Drive South	56.5	4:35 pm Traffic on Palos Verdes Drive South located above Channelview Street

Source: Noise Monitoring Survey conducted by RBF Consulting, March 1999.

Existing Traffic Noise Levels

Table 5.9-4, *Existing Traffic Noise Levels*, indicates the location of the 60, 65, and 70 CNEL noise contours associated with vehicular traffic along local roadways as modeled with the aforementioned FHWA computer model. Vehicular noise along four major roadways were modeled to estimate existing noise levels from mobile traffic. These roadways include Palos Verdes Drive West, Palos Verdes Drive South, 25th Street, and Hawthorne Boulevard, as described below.

Palos Verdes Drive West. Numerous residential units, both single-family and apartment units, are located along Palos Verdes Drive West between Palos Verdes Drive and Hawthorne Boulevard. The orientation of these units vary from directly along the roadway without noise barriers (i.e., wall, vegetation, or setback) to those units with an approximate10 to 30 foot setback with a five-foot wall. The majority of the units, however, do not currently have a wall, noise barrier or substantial setback separating the units from the roadway.

As shown in Table 5.9-4, the 60 CNEL contour from existing traffic conditions extends between 149 and 185 feet from the roadway centerline onto the existing residential units located along this segment. The existing residential units are typically setback between 5 and 35 feet from the roadway right-of-way (ROW), within the 60 CNEL contour which extends between approximately 101 to 145 feet from the ROW. As such, sensitive noise receptors along the this roadway segment currently experience exterior noise levels in excess of the 60 CNEL standard. Multi-family units are generally setback approximately 10 to 15 feet from the edge of ROW. The noise standards included in Table 5.9-2 indicate acceptable noise levels for multi-family uses up to 65 CNEL. The 65 CNEL contour near these units is located approximately 46 feet from the ROW. As such, these units currently experience levels in excess of the 65 CNEL standard for multi-family uses.

Palos Verdes Drive South. Sensitive noise receptors are also located along Palos Verdes Drive South between Hawthorne Boulevard and Palos Verdes Drive East. The orientation of these receptors to the roadway varies from located directly along the roadway with minimal setback and no wall (i.e., single-family dwelling units north of roadway and directly west of Palos Verdes Drive East, with additional residential units located north of roadway and directly east of Hawthorne Boulevard), to substantial setbacks of up to 150 feet with grade separation from the roadway. A church is located south of the roadway near the Project site.

As indicated in Table 5.9-4, the 60 CNEL contour extends between 123 and 169 feet from the roadway centerline along this segment. Single-family residential units at three locations along this roadway segment are located between 5 and 25 feet from the roadway ROW, thus placing them within the 60 CNEL contour from existing traffic noise (the 60 CNEL is located between 74 and 125 feet from the ROW). Two

TABLE 5.9-4
EXISTING TRAFFIC NOISE LEVELS
(Along Roadways Adjacent to and Near the Project Site)

Roadway Segment	Distances from Roadway Centerline To:			dBA CNEL @ 100 Feet from Centerline
	60 CNEL Contour	65 CNEL Contour	70 CNEL Contour	
Palos Verdes Drive (PVD) West				
South of Palos Verdes Drive	185	86	40	63.6
North of Hawthorne Boulevard	149	69	32	61.5
Palos Verdes Drive (PVD) South				
East of Hawthorne Boulevard	169	79	36	62.7
West of PVD East	123	57	27	60.5
25th Street				
Palos Verdes Drive East to Western Avenue	157	73	34	62.0
East of Western Avenue	190	88	41	63.4
Hawthorne Boulevard				
Palos Verdes Drive South to Crest Road	183	85	39	62.8
Crest Road to Granvia Altamira	252	117	54	64.9
Granvia Altamira to Grayslake Road	265	123	57	65.3
Grayslake Road to Indian Peak	336	156	72	66.8
Indian Peak to Silver Spur Road	318	148	69	66.4
Silver Spur Road to PVD North	285	132	61	65.7

NOTES/ASSUMPTIONS:

1. Calculations based on ADT contained in the Project Traffic Study (refer to Appendix 15.12, *Traffic Impact Analysis*).
2. Calculations are based on the FHWA Highway Noise Prediction Model FHWA-RD-77-108, using speeds of 40 and 50 mph, road geometry per the Project Traffic Report, and "soft" site.
3. Estimates do not adjust for any existing noise barriers, and are for traffic noise only.
4. CNEL is a 24-hour time-weighted average noise level. Noise which occurs during sensitive time periods is weighted more heavily.

of these locations are located north of the Palos Verdes Drive South, directly west of Palos Verdes Drive East, while the other is also located north of the roadway but near the Project site, just south of Hawthorne Boulevard. The City 60 CNEL contour is currently exceeded at these locations from existing traffic noise levels. The 65 CNEL contour is located approximately 79 feet from the roadway centerline (or 34 feet from the edge of ROW) along this segment. As such, the multi-family units located south of the Palos Verdes Drive South, near the Project site are located outside the 65 CNEL contour.

25th Street. Limited sensitive receptors are located along this roadway segment. West of the 25th Street and Western Avenue intersection, single-family dwelling units are located both north and south of 25th Street. Units to the north are located atop 30 to 40-foot high cliffs while the units south of the roadway are located along the street with an approximate 5 to 10 foot setback and a 4-foot high concrete sound wall.

As indicated in Table 5.9-4, the 60 CNEL contour is located between 157 and 190 feet from the roadway centerline along this segment. The aforementioned residents located south of the roadway along this segment are located approximately 5 to 10 feet from the roadway ROW, placing them within the 60 CNEL contour which extends between 108 and 146 feet from the ROW. Although the 4-foot high wall may reduce vehicular noise from 25th Street, the residents south of the roadway still experience noise levels in excess of state standards. As such, the 60 CNEL exterior state standard is currently exceeded at this location from existing traffic noise levels.

Hawthorne Boulevard. Sensitive receptors are located along the entire segment from Palos Verdes Drive South to Palos Verdes Drive North. For purposes of the traffic and noise analyses, Hawthorne Boulevard has been divided into six segments (refer to Table 5.9-4 for a listing of these segments).

Along Hawthorne Boulevard from Palos Verdes Drive South to Crest Road, multi-family units are located directly south of the roadway with a minimal setback north of the Palos Verdes Drive South intersection. Additional multi-family units are located along the roadway, elevated approximately 100-feet above the roadway. Single-family dwelling units along this segment vary from being located directly on the roadway with minimal setbacks and no walls to a 30-foot setback with a 4-foot wall.

As shown in Table 5.9-4, the 60 CNEL contour is currently located approximately 183 feet from the roadway centerline along this segment. As such, the aforementioned multi- and single-family units located along the roadway have minimal setbacks and no noise walls and are currently experiencing noise levels in excess of the 60 CNEL (single-family units) and 65 CNEL (multi-family units) resulting from existing traffic noise levels. These land uses are located approximately 10 to 15 feet from the roadway ROW along this segment and are

within the 60 CNEL contour (extending approximately 135 feet from the ROW) and the 65 CNEL contour (extending 37 feet from the ROW).

Along the other five roadway segments distinguished along Hawthorne Boulevard on Table 5.9-4 (extending from Crest Road to Palos Verdes Drive North), the 60 CNEL contour extends between 252 and 336 feet beyond the roadway centerline while the 65 CNEL contour extends from approximately 117 to 156 from the centerline. The orientation of existing sensitive receptors to the roadway varies and includes several multi-family structures located directly along Hawthorne Boulevard with minimal setbacks and no sound walls. Near the intersection of Hawthorne Boulevard and Granvia Altamira, two areas of single-family units are separated from the roadway by vegetation and a wall. Additional residential areas are located along both sides of the roadway and are elevated from the roadway or have setbacks in excess of 30 feet. Another residential area located near the intersection of Hawthorne Boulevard and Palos Verdes Drive North is located along the roadway with a three-foot wall separating the dwelling from the roadway. Since the residents are located between 5 and 15 feet beyond the roadway ROW along these segments, those units located directly along the roadway with minimal setbacks either with or without walls are currently experiencing noise levels in excess of the 60 (single-family) and 65 (multi-family) CNEL standards from existing traffic conditions. It should be noted that the 60 CNEL contour extends between 203 and 288 feet from the ROW while the 65 CNEL contour extends between 69 and 108 feet from the ROW.

IMPACTS

Significance Criteria

Appendix G, Initial Study Checklist, of the CEQA Guidelines contains analysis guidelines related to the assessment of noise impacts. These guidelines have been utilized as thresholds of significance for this analysis. As stated in Appendix G, a project may create a significant environmental impact if one or more of the following occurs:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (refer to Impact Statements 5.9-2, 5.9-3 and 5.9-4);

- Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels (refer to Section 10.0, *Effects Found Not To Be Significant*);

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statement 5.9-2);

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (refer to Impact Statement 5.9-1);

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels (refer to Section 10.0, *Effects Found Not To Be Significant*); and

- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels (refer to Section 10.0, *Effects Found Not To Be Significant*).

As stated above, a project is considered to have a significant noise impact where it causes an adopted noise standard to be exceeded for the project site or for adjacent sensitive receptors. The criteria utilized by the City indicated in Table 5.9-2 has been utilized as the thresholds in this analysis. If a 60 CNEL (single-family) or 65 CNEL (multi-family) threshold is exceeded under existing (no project) conditions, any increase by the project or background traffic would be considered a significant noise impact as it would exacerbate the current exceedance of the standard.

Potential impacts are grouped below according to topic. The numbered mitigation measures at the end of this Section directly correspond with the numbered impact statements.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

5.9-1 *Grading and construction within the Project area may result in temporary noise impacts to nearby noise sensitive receptors. Adherence to City Code requirements would reduce construction noise impacts to a less than significant level.*

Construction noise is generally of relatively short duration, lasting from a few days to a period of months. Noise impacts associated with construction activities would typically occur in several distinct phases, each with its own noise characteristics. The first phase, site preparation, is generally the noisiest and has the shortest duration. Activities that occur during this phase include earthmoving and compacting of soils. High noise levels are created during this phase from the

operation of heavy duty trucks, backhoes, and front end loaders. Noise levels typically range from 73 to 96 dBA at 50 feet from individual pieces of equipment.[1] The figures indicated in Table 5.9-5, *Typical Construction Equipment Noise Levels*, represents the "worst-case" day in which all equipment used during a given phase is operating. Because all equipment would not be operating on most days during construction, actual noise levels would, on many days, be lower than present in Table 5.9-5.

In addition to construction noise generated at the Project site, construction would also cause traffic noise along access routes to the site due to the movement of equipment and workers on the site. Heavy equipment detailed in Table 5.9-5 is expected to be moved on to the site once during each construction phase and would have a less than significant short-term effect on noise levels. Daily transportation of construction workers is not expected to cause a significant effect since this traffic would not be a substantial percentage of current daily volumes in the area, and would not be anticipated to increase traffic noise levels by more than 1 dBA.

TABLE 5.9-5
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Maximum Level dBA @ 50 Feet
Scrapers	88
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Noise produced by construction equipment varies substantially depending upon the type of equipment being used, and its operation and maintenance (refer to Table 5.9-5, *Typical Construction Equipment Noise Levels).*

A portable aggregate crusher operation is proposed in the "bowl" of the existing terrain on the southern portion of the RHA. The crusher would recycle the AC and PCC product into a useable aggregate base. This area would accommodate the crusher operation, raw materials, bag houses, and emission controls. The aggregate crusher and conveyor belt system would be powered by a single 700-HP generator. A wheeled loader and bobcat would be in operation in the crusher area

[1] United States EPA, 1971.

(10 hours per day). The crusher would be in operation 10 hours/day for 30 days. The proposed area for the crusher operations would be located over 2,000 feet from the nearest sensitive receptor. As such, temporary (30 days) noise impacts from these activities would not create a significant noise impact.

Excessive noise levels resulting from construction activities generally would occur in the daytime hours only since standards exempt construction noise if construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday (construction is prohibited on Sundays and legal holidays). Construction noise would last the duration of construction, although it would be the most noticeable during the initial months of site intensive grading and building construction. Noise sensitive receptors in proximity to the construction site may experience excessive noise levels resulting from construction activities. These impacts, however, are exempt as noted above and would be short-term, ceasing upon completion of each grading/construction phase. As such, construction impacts are considered to be less than significant.

LONG-TERM NOISE IMPACTS

Mobile Noise Impacts

5.9-2 *Project implementation would generate additional vehicular travel on the surrounding roadway network, thereby resulting in noise level increases along these roadways. Analysis has concluded that the Project would contribute to a significant and unavoidable noise impact along several roadways.*

Project implementation would result in additional traffic on adjacent roadways, thereby increasing vehicular generated noise in the vicinity of existing and proposed residential uses. These impacts would result from Project-related vehicle travel, thereby contributing to future noise level increases above standards along adjacent roadway segments. Mobile noise impacts from the surrounding street network were modeled for Existing Conditions both with and without the proposed Project. In accordance with the traffic study, mobile noise impacts from a horizon year of 2010, both with and without the Project, were also modeled. The FHWA Model was used for calculating existing and future traffic noise levels using traffic information provided by the Project Traffic Report (refer to Section 5.12, *Traffic and Circulation*).

Existing Plus Project Vehicular Noise (60 CNEL Noise Projections)

Vehicular noise along four major roadways were modeled to estimate existing plus Project noise levels from vehicular traffic. These roadways include Palos Verdes Drive West, Palos Verdes Drive South, 25th Street, and Hawthorne Boulevard, as described below.

Palos Verdes Drive West. As described in the Existing Conditions section, numerous residential units are located along Palos Verdes Drive West between Palos Verdes Drive and Hawthorne Boulevard. The orientation of these units vary from being directly located along the roadway without noise barriers (i.e., wall, vegetation, or setback) to located approximately a 10 to 30 foot setback with a five-foot wall. The majority of the units, however, do not currently have a wall or substantial setback separating the units from the roadway. The existing 60 CNEL contour extends between 149 and 185 feet from the roadway centerline along this segment. The existing residential units are typically setback approximately 5 to 35 feet from the roadway ROW, within the existing 60 CNEL contour. As such, sensitive noise receptors along the this roadway segment currently experience exterior noise levels in excess of the 60 CNEL standard. Under existing plus Project traffic conditions, the 60 CNEL contour would extend between 156 and 188 feet beyond the roadway centerline, an addition of 3 to 17 feet beyond existing conditions, depending on location. Multi-family units are generally setback approximately 10 to 15 feet from the edge of ROW. The noise standards included in Table 5.9-2 indicate acceptable noise levels for multi-family uses up to 65 CNEL. The 65 CNEL contour near these units for existing plus Project conditions is located approximately 72 to 87 feet from the ROW. At 100 feet from the roadway centerline, the Project traffic would add between 0.1 and 0.3 dBA when compared to existing conditions. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 CNEL standards. Thus, the increase of 0.1 to 0.3 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

Palos Verdes Drive South. As discussed in the Existing Conditions section, sensitive noise receptors are located along Palos Verdes Drive South between Hawthorne Boulevard and Palos Verdes Drive East. The orientation of these receptors to the roadway varies from locations directly along the roadway with minimal setback and no wall (i.e., single-family dwelling units north of roadway and directly west of Palos Verdes Drive East, with additional residential units located north of roadway and directly east of Hawthorne Boulevard), to substantial setbacks of up to 150 feet with grade separation from the roadway. The existing 60 CNEL contour extends between 123 and 169 feet from the roadway centerline along this segment. Single-family residential units at three locations along this roadway segment are located between 5 and 25 feet of the roadway right-of-way, thus placing them within the 60 CNEL contour from existing traffic noise. Two of these locations are located north of the Palos Verdes Drive South, directly west of Palos Verdes Drive East while the other is also located north of the roadway but near the Project site, just south of Hawthorne Boulevard. The 60 CNEL exterior noise standard is currently exceeded at these locations when compared to existing traffic noise levels.

Under existing plus Project traffic conditions, the 60 CNEL contour would extend between 143 and 204 feet beyond the roadway centerline, an addition of 20 to 35 feet beyond existing conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add between 0.9 and 1.2 dBA when compared to existing conditions. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the State standard. Thus, the increase of 0.9 to 1.2 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

25th Street. As discussed in the Existing Conditions discussion, limited sensitive receptors are located along this roadway segment. West of the 25th Street and Western Avenue intersection, single-family dwelling units are located both north and south of 25th Street. Units to the north are located atop 30 to 40-foot high cliffs while the units south of the roadway are located along the street with an approximate 5 to 10 foot setback and a 4-foot high concrete sound wall. The 60 CNEL contour is located between 157 and 190 feet from the roadway centerline along this segment. The aforementioned residents located south of the roadway along this segment are located approximately 5 to 10 feet from the roadway ROW placing them within the existing 60 CNEL contour. As such, the 60 CNEL exterior standard is currently exceeded at this location from existing traffic noise levels.

Under existing plus Project traffic conditions, the 60 CNEL contour would extend between 174 and 212 feet beyond the roadway centerline, an addition of 17 to 22 feet beyond existing conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add 0.7 dBA when compared to existing conditions. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of standards. Thus, the increase of 0.7 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

Hawthorne Boulevard. As described in the Existing Conditions discussion, sensitive receptors are located along the entire analyzed segment from Palos Verdes Drive South to Palos Verdes Drive North. Between Palos Verdes Drive South and Crest Road, the existing 60 CNEL contour is currently located approximately 183 feet from the roadway centerline. As such, multi- and single-family units located directly on the roadway with minimal setbacks and no noise walls are currently experiencing noise levels in excess of the 60 (single-family) and 65 (multi-family) CNEL noise standards from existing traffic noise levels. Between Crest Road and Palos Verdes Drive North, the 60 CNEL contour extends between 252 and 318 feet beyond the roadway centerline. Since the residents are located between 10 and 15 feet beyond the roadway ROW along these segments, those units located directly along the

roadway with minimal setbacks either with or without walls are currently experiencing noise levels in excess of the 60 and 65 CNEL standards from existing traffic conditions.

Under existing plus Project traffic conditions, the 60 CNEL contour along Hawthorne Boulevard between Palos Verdes Drive South and Crest Road would extend 211 feet beyond the roadway centerline, an additional 28 feet when compared to existing conditions. At 100 feet from the centerline, Project-generated traffic would add an estimated 1.0 dBA beyond existing conditions. Along the remaining segments of Hawthorne Boulevard (Crest Road to Palos Verdes Drive North), the 60 CNEL contour would extend between 266 and 348 feet beyond the roadway centerline, an addition of 10 to 14 feet beyond existing conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add between 0.2 and 0.4 dBA when compared to existing conditions along these segments. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 and 65 CNEL standards. Thus, the increase of 0.2 to 0.4 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

Future (Year 2010) Vehicular Noise

Vehicular noise along the same four major roadways were modeled to estimate future year 2010 vehicular noise with and without Project-generated traffic. As explained in Section 5.12, *Traffic and Circulation*, the Future 2010 Without Project traffic scenario includes background growth traffic anticipated to occur on the local circulation network between Project development and 2010. The Future Year 2010 With Project Traffic scenario adds Project-generated traffic to the background growth traffic condition.

TABLE 5.9-6
EXISTING AND EXISTING PLUS PROJECT CONDITIONS
60 CNEL NOISE PROJECTIONS
(Based on Vehicular Generated Noise)

Roadway Segment	Distance from Roadway Centerline to 60 CNEL Contour (Feet)			CNEL at 100 Feet from Roadway Centerline				
	Existing Conditions	Existing Plus Project	Change Between Existing With and Without Project	Existing Conditions	Existing Plus Project	Change Between Existing With and Without Project	Would Project Create an Individual Significant Noise Impact?	Would Project Exacerbate Existing Exceedance of Standard?
Palos Verdes Drive West								
• South of Palos Verdes Drive	185	188	3	63.6	63.7	0.1	NO	YES
• North of Hawthorne Boulevard	149	156	17	61.5	61.8	0.3	NO	YES
Palos Verdes Drive South								
• East of Hawthorne Boulevard	169	204	35	62.7	63.9	1.2	NO	YES
• West of Palos Verdes Drive East	123	143	20	60.5	61.4	0.9	NO	YES
25th Street								
• Palos Verdes Drive East to Western Avenue	157	174	17	62.0	62.7	0.7	NO	YES
• East of Western Avenue	190	212	22	63.4	64.1	0.7	NO	YES
Hawthorne Boulevard								
• Palos Verdes Drive South to Crest Road	183	211	28	62.8	63.8	1.0	NO	YES
• Crest Road to Altamira	252	266	14	64.9	65.3	0.4	NO	YES
• Altamira to Grayslake Road	265	279	14	65.3	65.6	0.3	NO	YES
• Grayslake Road to Indian Peak	336	348	12	66.8	67.0	0.2	NO	YES
• Indian Peak to Silver Spur Road	318	330	12	66.4	66.7	0.3	NO	YES
• Silver Spur Road to PVD North	285	295	10	65.7	66.0	0.3	NO	YES

NOTES/ASSUMPTIONS:

1. Existing Conditions and Existing Plus Project average daily traffic (ADT) derived from traffic data as contained within the Project Traffic Study, dated September 18, 2000.
2. The “change” column represents the difference between Existing Conditions and Existing Plus Project traffic scenarios.
3. Figures are based on the FHWA Highway Noise Prediction Model FHWA-RD-77-108, using posted speeds of 40 mph and 50 mph, observed and planned road geometry, and "soft" site.
4. Estimates do not adjust for any existing noise barriers, and are for traffic noise only.
5. CNEL is based on 24 hourly readings of equivalent levels known as Leq’s, based on an A-weighted decibel with upward adjustments added to account for increased noise sensitivity in the evening and night periods.

TABLE 5.9-7
YEAR 2010 60 CNEL NOISE PROJECTIONS
(Based on Vehicular Generated Noise)

Roadway Segment	Distance from Roadway Centerline to 60 CNEL Contour (Feet)			CNEL at 100 Feet from Roadway Centerline				
	Year 2010 With Project	Year 2010 Without Project	Change Between 2010 With and Without Project	Year 2010 With Project	Year 2010 Without Project	Change Between 2010 With and Without Project	Would Project Create an Individual Significant Noise Impact?	Would Project Exacerbate Existing Exceedance of Standard?
Palos Verdes Drive West								
• South of Palos Verdes Drive	199	195	4	64.0	63.9	0.1	NO	YES
• North of Hawthorne Boulevard	169	163	6	62.4	62.1	0.3	NO	YES
Palos Verdes Drive South								
• East of Hawthorne Boulevard	225	190	35	64.5	63.4	1.1	NO	YES
• West of Palos Verdes Drive East	162	144	18	62.3	61.5	0.8	NO	YES
25th Street								
• Palos Verdes Drive East to Western Avenue	193	177	16	63.4	62.8	0.6	NO	YES
• East of Western Avenue	238	218	20	64.9	64.3	0.6	NO	YES
Hawthorne Boulevard								
• Palos Verdes Drive South to Crest Road	231	203	28	64.4	63.5	0.9	NO	YES
• Crest Road to Altamira	280	266	14	65.6	65.3	0.3	NO	YES
• Altamira to Grayslake Road	292	279	13	65.9	65.6	0.3	NO	YES
• Grayslake Road to Indian Peak	364	352	12	67.3	67.1	0.2	NO	YES
• Indian Peak to Silver Spur Road	346	335	11	67.0	66.8	0.2	NO	YES
• Silver Spur Road to PVD North	309	300	9	66.3	66.1	0.2	NO	YES

NOTES/ASSUMPTIONS:

1. Year 2010 average daily traffic (ADT) derived from traffic data as contained within the Project Traffic Report, dated September 18, 2000.
2. The “change” column represents the difference between Year 2010 With Project and Year 2010 Without Project traffic scenarios.
3. Figures are based on the FHWA Highway Noise Prediction Model FHWA-RD-77-108, using posted speeds of 40 mph and 50 mph, observed and planned road geometry, and "soft" site.
4. Estimates do not adjust for any existing noise barriers, and are for traffic noise only.
5. CNEL is based on 24 hourly readings of equivalent levels known as Leq’s, based on an A-weighted decibel with upward adjustments added to account for increased noise sensitivity in the evening and night periods.

Palos Verdes Drive West. The existing residential units are typically setback approximately 5 to 35 feet from the roadway ROW, within the existing 60 CNEL (single-family threshold) and 65 CNEL (multi-family threshold) contours. As such, sensitive noise receptors along the this roadway segment currently experience exterior noise levels in excess of the 60 and 65 CNEL standards. Under Future 2010 With Project Traffic conditions, the 60 CNEL contour would extend between169 and 199 feet beyond the roadway centerline, an addition of 4 to 6 feet beyond Future 2010 Without Project conditions, depending on location. The 65 CNEL would extend between 79 and 92 feet beyond the roadway centerline under Future 2010 With Project conditions (an addition of 4 to 2 feet beyond Future 2010 Without Project conditions). At 100 feet from the roadway centerline, the Project traffic would add between 0.1 and 0.3 dBA when compared to Future 2010 Future Without Project conditions.

While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 (single-family) and 65 (multi-family) CNEL standards. Thus, the increase of 0.1 to 0.3 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

Palos Verdes Drive South. Sensitive noise receptors are located along Palos Verdes Drive South between Hawthorne Boulevard and Palos Verdes Drive East. As previously described, the 60 CNEL exterior noise standard is currently exceeded at three locations from existing traffic noise levels. Single-family residential units at three locations along this roadway segment are located between 5 and 25 feet of the roadway ROW, thus placing them within the 60 CNEL contour from existing traffic noise.

Under Future 2010 With Project conditions, the 60 CNEL contour would extend between 162 and 225 feet beyond the roadway centerline, an addition of 18 to 35 feet beyond Future 2010 Without Project conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add between 0.8 and 1.1 dBA when compared to Future 2010 Without Project conditions. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 CNEL standard. Thus, the increase of 0.8 to 1.1 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

25th Street. The 60 CNEL exterior standard is currently exceeded at one location along this segment from existing traffic noise levels. The previously discussed residents located south of the roadway along this segment are located approximately 5 to 10 feet from the roadway ROW placing them within the existing 60 CNEL contour. Under Future 2010 With Project traffic conditions, the 60 CNEL contour would extend between 193 and 238 feet beyond the roadway centerline, an

addition of 16 to 20 feet beyond Future 2010 Without Project conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add 0.6 dBA when compared to Future 2010 Without Project conditions. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 CNEL standard. Thus, the increase of 0.6 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

Hawthorne Boulevard. Existing sensitive receptors are located as close as 10 feet from the roadway ROW. Those units located directly along the roadway with minimal setbacks and either with or without walls are currently experiencing noise levels in excess of the 60 CNEL (multi-family) and 65 CNEL (multi-family) standard from existing traffic conditions.

Under Future 2010 With Project Traffic conditions, the 60 CNEL contour along Hawthorne Boulevard between Palos Verdes Drive South and Crest Road would extend 231 feet beyond the roadway centerline, an additional 28 feet when compared to Future 2010 Without Project conditions. Along this same segment, the 65 CNEL would extend 107 feet from the centerline under the Future 2010 With Project condition, approximately 13 feet beyond Future 2010 Without Project conditions. At 100 feet from the centerline, Project-generated traffic would add an estimated 0.9 dBA beyond Future 2010 Without Project conditions.

Along the remaining segments of Hawthorne Boulevard (Crest Road to Palos Verdes Drive North), the 60 CNEL contour would extend between 280 and 364 feet beyond the roadway centerline, an addition of 9 to 14 feet beyond Future Without Project conditions, depending on location. The 65 CNEL contour would extend between 130 and 169 feet beyond the roadway centerline, an addition of 5 to 6 feet beyond Future Without Project conditions, depending on location. At 100 feet from the roadway centerline, the Project traffic would add between 0.2 and 0.3 dBA when compared to Future Without Project conditions along these segments. While the increase associated with Project-generated traffic is not significant in and of itself, it should be noted that the aforementioned residences along this segment are currently experiencing noise levels in excess of the 60 CNEL (single-family) and 65 CNEL (multi-family) standards. Thus, the increase of 0.2 to 0.3 dBA would exacerbate a current exceedance thereby contributing to a significant and unavoidable cumulative noise impact to these residences.

While the Project-related increase, in and of itself, would not create a “substantial permanent increase in ambient noise levels,” as established by CEQA as a threshold, the increase would further exacerbate a current (and anticipated Future 2010 Without Project) exceedance of the 60 CNEL noise standards for sensitive receptors located along roadways listed in Table 5.9-7. As such, the proposed Project traffic would contribute to a significant and unavoidable increase in cumulative noise levels along local roadways.

Stationary Noise Impacts

5.9-3 *Long-term resort operations associated with the proposed Project would result in the generation of on-site noise associated with club house activities, loading/unloading activities, mechanical equipment, parking lots, etc. The analysis has concluded that impacts would be reduced to less than significant levels with adherence to City Noise Ordinance requirements which includes shielding of equipment, loading activities and other related limitations.*

New stationary noise sources created by implementation of the proposed Project include resort/golf course uses and associated mechanical equipment and parking areas. The potential noise levels associated with these noise sources are described below.

Resort Noise Sources

Noise typically associated with operation activities of resort uses would be generated by the following sources:

- Delivery/supply vehicles traveling on the site, to and from loading areas;
- Activities at loading areas (maneuvering and idling trucks, banging and clanging of equipment and P.A. systems); and
- Mechanical equipment (air conditioners, trash compactors, emergency generators, etc.).

Although several noise sources would be introduced, many of them would operate for only very brief time periods, such as delivery truck movements, trash compactors, and parking lot sweepers. These types of sources usually do not operate concurrently. Other noise sources, such as air conditioning equipment, parking lot traffic, and loading dock activities, operate for comparatively longer periods of time.

Additionally, the resort may utilize outdoor background music, PA systems, and or host events which may utilize live music (i.e., wedding receptions). These sources would increase ambient noise levels in the vicinity. In an effort to reduce the significance of stationary noise impacts associated with the outdoor activities, background music, or P.A. systems, noise reduction measures, such as the use of directional speakers that are directed away from adjacent residential receivers, modification to speaker systems and sound level limitations would serve to reduce the potential for significant noise impacts to adjacent residential uses. Implementation of these measures would reduce potential impacts in this regard to

a less than significant level. The proposed Project would also be required to reduce on-site noise impacts to below City utilized noise standards.

Mechanical Equipment

Mechanical equipment, such as generator, heating, ventilation and air conditioning (HVAC) units would be included as part of the various on-site uses. Typically, equipment noise is approximately 55 dBA at 50 feet from the source. Due to the distance between the noise source and receptor (existing nearby residences), noise generated by mechanical equipment on-site would not create a significant noise impact.

Parking Lot Areas

The clubhouse and resort uses would include surface parking areas. Typical noise levels generated by parking areas are an estimated 70 dBA at 50 feet. The traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, an engine starting-up, and car pass-by may be an annoyance to an adjacent sensitive receptors. Tire squeal may also be a problem depending on the type of parking surface. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 5.9-8, *Maximum Noise Levels Generated by Parking Lots*. Certain noise attenuation (a reduction of 3 to 5 dBA) can be provided by structures, walls and other topography features. Due to the distance between the parking areas and sensitive noise receptors, significant noise impacts from the proposed parking lot would not occur.

A subsequent noise analysis shall be prepared during preparation of the Final Development Plans, demonstrating that site placement of stationary noise sources identified above would not exceed City Code criteria for adjacent residences. Therefore, long-term stationary noise generated from proposed uses would be reduced to a less than significant level.

TABLE 5.9-8
MAXIMUM NOISE LEVELS GENERATED BY PARKING LOTS
(dBA at 50 Feet)

Event	Maximum Noise Level
Door Slam	60 to 70
Engine Start-Up	60 to 70
Car Pass-by	55 to 70

CUMULATIVE IMPACTS

5.9-4 *Implementation of the proposed Project, together with cumulative projects, would increase the ambient noise levels in the Project vicinity. Vehicular traffic from the Project, and cumulative projects would cause current exceedances of noise standards along local roadways to be exacerbated. As such, the Project combined with cumulative projects, would contribute to a significant and unavoidable cumulative noise impact.*

Potential noise generated by the Project and cumulative projects would be subject to adherence to the Land Use Compatibility Guidelines utilized as noise thresholds by the City and Code requirements. However, as shown in Tables 5.9-6 and 5.9-7, Project-generated traffic would further exacerbate the existing exceedances of State noise standards along numerous local roadways. Although the Project's individual contribution would not be significant, the existing exceedances of the 60 CNEL (single-family) and 65 CNEL (multi-family) State standards, combined with Project-generated and cumulative vehicular noise would cause a significant and unavoidable noise impact at a cumulative level.

MITIGATION MEASURES

The following mitigation measures directly correspond to the numbered impact statements in the Impact Analysis discussion.

SHORT-TERM CONSTRUCTION NOISE

The following specific mitigation measures are recommended for incorporation in the Project to minimize short-term noise impacts and insure compliance with applicable noise standards:

5.9-1 During grading/construction activities, the contractor shall employ the following measures to ensure that construction noise will not

adversely affect adjacent sensitive uses. Construction activities shall be periodically monitored by the City to ensure compliance with applicable City Code, including the limitation of construction hours to 7:00 am to 7:00 pm, Monday through Saturday.

- All construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers.
- On-going inspection and maintenance of equipment.
- Stationary equipment will be placed such that emitted noise is directed away from sensitive noise receivers.
- Stockpiling and vehicle staging areas should be located as far as practical from the occupied dwellings adjacent to the Project site.
- Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities.

LONG-TERM NOISE IMPACTS

Mobile Noise Sources

5.9-2 No mitigation measures are feasible.

Stationary Noise Sources

5.9-3 Prior to Final Development Plan approval, a subsequent noise analysis shall be prepared, to the satisfaction of the Director of Planning and Building and the City Engineer, which demonstrates that site placement of stationary noise sources would not exceed noise standards indicated in the State Land Use Noise Compatibility Guidelines for adjacent residences.

CUMULATIVE IMPACTS

5.9-4 No mitigation measures beyond compliance with State Standards and City Development Codes have been identified.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Several local roadways would experience noise levels in the future above standards in the absence of the proposed Project. Since the Project generated trips would

further exacerbate a projected exceedance of standards beyond established thresholds, implementation of the proposed Project would contribute to a significant and unavoidable impact for adjacent residential areas along the following roadway segments:

- Palos Verdes Drive West (from Palos Verdes Drive to Hawthorne Boulevard);
- Palos Verdes Drive South (from Hawthorne Boulevard to Palos Verdes Drive East);
- 25th Street (from Palos Verdes Drive East to Western Avenue); and
- Hawthorne Boulevard (from Palos Verdes Drive South to Palos Verdes Drive North).

If the City of Rancho Palos Verdes approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.

5.10 PUBLIC HEALTH AND SAFETY

This Section addresses potential impacts related to the physical condition of the site and adjacent uses due to the historic activities that have occurred on the Project site. Potential contamination on-site is discussed in this Section. This analysis includes a review of historic and existing on-site land uses and their associated activities. A review of Federal, State and local agency's databases of reported (suspect and/or known) hazardous materials and waste contamination sites located within the Project site and a one mile radius is presented. Potential safety issues associated with the use, storage, emission, disposal, and transport of hazardous waste on, and in the immediate vicinity of the proposed Project area is discussed.

Information in this section is based on the City of Rancho Palos Verdes General Plan, the Long Point Golf Course Plan Review and Safety Analysis (Kipp Schulties Golf Design, Inc., September 12, 2000) and the Phase I Environmental Site Assessment (ESA) (RBF Consulting, September 15, 2000).

EXISTING CONDITIONS

HAZARDOUS MATERIALS

A Phase I ESA was prepared to evaluate the potential presence of hazardous materials and the expected nature of the material that may be on the subject site addressed within the ESA. The subject site is located on the Palos Verdes Peninsula and is comprised of two separate geographical areas consisting of the Resort Hotel Area (RHA) (former Marineland Aquatic Park) and the Upper Point Vicente Area (UPVA) (refer to Exhibit 3-2, *Project Vicinity*).

Historical Site Usage

The following historical information is based upon review of available historical maps and documents, available public information, interviews, and a review of a series of historical aerial photographs dating from 1953 to 1995.

Interviews

Los Angeles Air Force Base

RBF interviewed Mr. John Ryan, Public Affairs Specialist with the Los Angeles Air Force Base, concerning historic uses associated with the NIKE missile silo sites within the UPVA (March 9, 1998). Refer to Section 4.0, *Potential Areas of Environmental Concern*, as well as documentation contained within Appendix B, of Appendix 15.10, *Phase I ESA*, for a detailed discussion regarding the NIKE missile silos.

United States Coast Guard ISC San Pedro Facilities Engineering

RBF interviewed Mr. Jim Heinz, Facilities Engineer with the United States Coast Guard at San Pedro (March 9, 1998). Mr. Heinz indicated that two leaking underground storage tanks (LUSTs) encased in two separate concrete vaults were removed directly adjacent to the Point Vicente Bunker located in the UPVA in approximately 1996. Remedial corrective measures were performed and the site was fully remediated (refer to Section 4.0, *Potential Areas of Environmental Concern)*.

California Water Service Company

RBF interviewed California Water Service (CWS) staff which indicated that there are no potable groundwater wells located on the Palos Verdes peninsula. All potable water service is provided by CWS through purchases from the Metropolitan Water District.

Documentation

Historical Documentation (Former U.S. Army Property)

Mr. David Snow, Deputy Planning Director for the City of Rancho Palos Verdes, provided two untitled historical information packets regarding the UPVA which was formerly owned and operated by the United States Army as a missile (NIKE) site and gunnery range until 1974. According to the documentation, the site was acquired in 1942 for the purpose of the construction of Battery #240. During the 1950's and 1960's, the site was home to the administration and launch facilities for both the Nike Ajax and Nike Hercules anti-aircraft missiles. It was designated as LADA (Los Angeles Defense Area) #55, a part of the air defense system of Los Angeles. By the early 1970's the Nike defense system was obsolete.

Several (remediation) projects were identified by the military as part of the abandonment of Battery #240 and Nike Battery #55 on the UPVA. They included the following:

- The removal of two 500-gallon underground storage tanks and associated piping was identified for Point Vicente Bunker Battery #240.

- The removal of three abandoned fuel storage tanks and sampling and disposal of seven 55-gallon drums were projects identified for the Nike facilities. Soil sampling was also to be included around these identified areas as well as in the area of the former paint storage shed, acid storage and fueling facilities.

Federal Facility PA Review-Point Vicente Bunker

RBF reviewed a Federal Facility PA Review (refer to Appendix B, *Documentation*, of Appendix 15.10, *Phase I ESA*) for the Point Vicente Bunker dated March 25, 1996. As illustrated on Exhibit 5.10-1, *Areas of Concern,* this bunker is situated within the UPVA, but, also extends into the adjacent United States Coast Guard (USCG) site which is outside of the Project boundaries. This report documented the potential threat associated with two (2) suspected underground storage tanks (UST) located adjacent to the bunker. The location of the potential USTs is unknown. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties. Additionally, this report documented asbestos containing material (ACM) and lead-based paints (LBPs) associated with structural components of the bunker. These two suspect USTs are in addition to the two LUSTs which were removed from the northern entrance to the Point Vicente Bunker in 1996.

Battery 240 General Plan Map

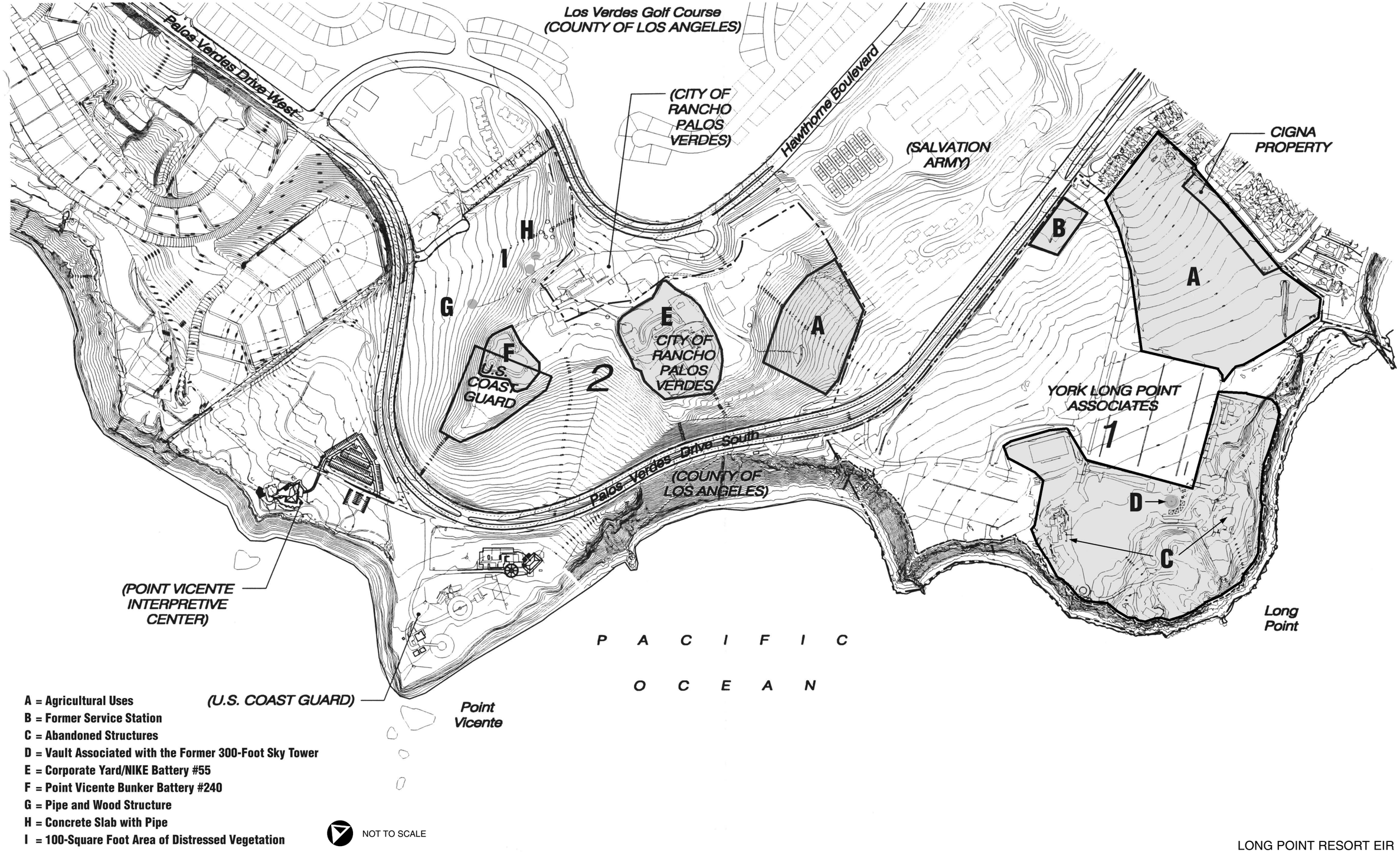
According to the Battery 240 General Plan Map, dated January 14,1944, two USTs are located along the access road to Battery 240. These two tanks are believed to be the two LUSTs which were removed and the area remediated in 1996.

Environmental Site Assessment-Rancho Palos Verdes Resort Assessment #6150000195

The Phase I Environmental Site Assessment (ESA) dated October 1992 identifies the RHA's past land uses as the Marineland Aquatic Park. This document provides a detailed regulatory database review and inventory of existing and past structures located within this parcel. In addition, this document identifies the former visitor information center as a service station.

Building Department Records

Building Department Records are those records of the local government in which the subject site is located indicating permission of the local government to construct alter, or demolish improvements on the property. The purpose of the records review was to obtain and review building permit records which would help to evaluate potentially recognizable environmental condition(s) which could be connected with the subject site. Although information concerning tenant improvements/alterations



A = Agricultural Uses
B = Former Service Station
C = Abandoned Structures
D = Vault Associated with the Former 300-Foot Sky Tower
E = Corporate Yard/NIKE Battery #55
F = Point Vicente Bunker Battery #240
G = Pipe and Wood Structure
H = Concrete Slab with Pipe
I = 100-Square Foot Area of Distressed Vegetation

NOT TO SCALE

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LONG POINT RESORT EIR

Areas of Potential Concern

Exhibit 5.10-1

and other miscellaneous modifications were located during the research, this information did not contain information relevant to this Assessment.

Resort Hotel Area. Review of available building permits (as contained within Environmental Site Assessment Rancho Palos Verdes Resort Asset #6150000195) provided a history of structural improvements within this area. No adverse environmental conditions were noted during review of available building and use permits. For this area, numerous building, grading, electrical, plumbing, special use and construction permits were issued for the subject site related to the original construction of Marineland. A summary of building records is provided in Appendix 15.10, *Phase I ESA*.

Upper Point Vicente Area. Due to the previous ownership by the federal government, no building permits were available for review at the Rancho Palos Verdes City Hall.

Recorded Land Title Records

Recorded land titles are records usually maintained by the municipal clerk or county recorder of deeds which detail ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against the subject site within the local jurisdiction having control for or reporting responsibility to the subject site. Due to state land trust regulations and laws, land title records will often only provide trust names, bank trust numbers, owner's names, or easement holders, and not information concerning previous uses or occupants of the subject site. Additionally, environmental liens recorded against the subject site are, at times, considered outside the scope of recorded land title records. For these reasons, this Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than recorded land titles.

City Directory Searches

City Directories, published by private companies (or sometimes the government), provide a chronological sequence of past site ownership, occupancy, and/or uses for a property by reference of an address. This type of search is particularly effective and primarily used to determine the past uses of commercial properties. As such, this Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than City Directory Searches.

Sanborn Fire Insurance Maps

Sanborn Maps contain detailed drawings which indicate the location and use of structures on a given property during specific years. These maps were originally produced to show buildings in sufficient detail for insurance underwriters to evaluate fire risks and establish premiums, but now are utilized as a valuable source of historical and environmental risk information. RBF Consulting requested available historical Sanborn Fire Insurance Maps for the subject site from VISTA Information Solutions, Inc. At the time of this Assessment, no Sanborn Maps had been published for the subject site vicinity (refer to Appendix B, *Documentation*, of 15.10, *Phase I ESA*).

Historical County Planning Maps

Beginning in the 1930's, historical county planning maps were used by highway departments to disburse federal funding based on each county's road system. Some states just mapped roads, but many added cultural features such as farms and factories. These features were usually shown everywhere except within city limits. These maps are especially useful in conjunction with historical topographic maps. The topographical map can indicate the size, shape, and location of structures, while the historical county planning map can identify their use. RBF Consulting requested available historical county planning maps for the subject site from VISTA Information Solutions, Inc. At the time of this Assessment, no historical county planning maps had been published for the Project site vicinity.

California Department of Oil, Gas, and Geothermal Resources

RBF Consulting reviewed a Wildcat Map provided by the California Department of Oil, Gas, and Geothermal Resources (DOGGR). These maps indicate existing and historical oil and gas wells within the immediate vicinity of the subject site. Current well status for any well indicated on the Wildcat Maps should be confirmed at the appropriate Division of Oil and Gas District Office. According to the Wildcat Map W1-6, dated February 6, 1999, one (1) plugged and abandoned dry hole is identified adjacent to the western cliff within the RHA. This hole was dug in 1941 to a depth of 4,500 feet below ground surface (bgs). In addition, according to the *1995 Oil, Gas, and Geothermal Fields in California Map*, published by DOGGR, the subject site is situated in a sedimentary basin with oil, gas, or geothermal production.

Aerial Photographs

RBF Consulting reviewed available aerial photographs for the subject site and immediately adjacent areas to assist in the identification of development activities that have historically occurred on-site. Review of available historical aerial photographs dated 1952 through 1995 provided a chronological sequence of site

history (refer to Appendix 15.10, *Phase I ESA*). The aerial photographs were reviewed at Continental Aerial.

Based on review of the above referenced historical aerial photographs, the subject site appears to have consisted of an aquatic park and agricultural uses within the RHA. The UPVA has been utilized as a military installation and a small portion used for agricultural purposes.

Regulatory Sources

Governmental sources have been searched for sites within the subject site and within an approximate one-mile radius of the subject property boundaries. Federal sources, State sources and additional record searches have revealed the following:

Subject Site. Available public records were reviewed. The lists which were reviewed identified that two (2) listed regulatory sites are reported within the boundaries of the subject site. These sites consist of a former leaking underground storage tank (LUST) which have resulted in a subsurface release of petroleum products. Both sites impacted soils only and are considered closed by the local regulatory agency.

All Regulatory Listed Sites Within a One-Mile Radius of the Subject Site. No listed regulatory sites are located within a one-mile radius of the subject site.

Additional Environmental Record Searches

No additional environmental records searches were performed during the preparation of this Assessment.

Table 5.10-1, *Identified Sites Within the Subject Site*, lists sites identified in the regulatory database.

On-Site Observations

Methodology and Limiting Conditions. During the March 2, 1998 and September 6, 2000 site inspections, RBF Consulting performed a visual observation of readily accessible areas of the subject site and immediately adjoining properties. RBF Consulting encountered conditions which limited the performance of this Assessment. Access to the Point Vicente Bunker Battery #240 within the UPVA was restricted since the U.S. Coast Guard would not allow entry into the Bunker. Additionally, entrance to some structures within the RHA was restricted since these were blocked with plywood.

TABLE 5.10-1
IDENTIFIED SITES WITHIN THE SUBJECT SITE

(Were Identified in the Regulatory Database)

Vista Map ID#	Site Name/Address	Regulatory List	Site Status	Potential for an Environmental Condition on the Subject Site
1	Marineland 6600 Palos Verdes Drive South RPV, CA 90275	LUST	Case Closed. Soil Only.	Low - See Site Status
2	Chevron USA 6560 Palos Verdes Drive South RPV, CA 90275	LUST	Case Closed. Soil Only.	Low - See Site Status

Note: Map ID numbers match the site numbers indicated on the map of sites within one-mile contained within Appendix A, *VISTA Search*, of Appendix 15.10, *Phase I ESA*.

Potential For Environmental Condition Key:

Low Potential = Potential to create environmental condition on subject site is considered to be low for one or several factors including, but not limited to, the following:

- Direction of groundwater flow is away from the subject site (down gradient); remedial action is underway or completed at off-site location; distance from subject site is considered great enough to not allow the creation of a potential environmental condition; only soil was affected by the occurrence; and/ or reporting agency has determined no further action is necessary.

Moderate Potential = Potential to create environmental condition on subject site is considered to be moderate and further investigation may be necessary due to one or several factors including, but not limited to, the following:

- Occurrence reported but remedial status unknown; unable to confirm remedial action completed; proximity to subject site; groundwater flow is towards the subject site (up gradient).

High Potential = Potential to create environmental condition on subject site is considered to be high and further investigation necessary due to one or several factors including the following:

- Occurrence noted on-site and status if remedial action unknown; occurrence affected groundwater and is located up gradient from subject site.

Description of On-Site Structures and/or Uses

Resort Hotel Area

This area consists of numerous abandoned structures and facilities associated with the former Marineland Aquatic Park, constructed in 1953. The facilities included aquariums, water tanks, and animal handling/storage areas. Additional structures include theaters and restaurant/snack bars. A 300-foot hydraulic operated sky tower was centrally located within the park, but, has been removed in recent years and all that remains is the associated subsurface vault. The remainder of the parcel includes two paved asphalt parking areas, a former visitor information/service station located at the entrance to the Marineland facility, the former Marineland Inn Motel and vacant undeveloped land.

The RHA is currently utilized for several uses including property management offices, a reception hall (Catalina Room) and an agricultural field (majority of which is currently fallow). In addition, a sewage pump facility (currently inoperable) is located on the southern portion of the site. All of the existing buildings associated with the Marineland park were boarded up (with the exception of the Catalina Room and the maintenance warehouse), and access to the existing on-site structures was restricted during the March 2, 1998 site inspection.

Approximately 15.6 acres of undeveloped land were previously utilized for agriculture along the northeast boundary of the site. The agricultural fields were not under cultivation during the March 2, 1998 site investigation. Several storage sheds, equipment and trucks were observed stored on the north end of the agricultural field.

The former visitor information center/service station is located at the main entrance to this area along Palos Verdes Drive South. The building is currently abandoned and in disrepair. The interior of the building includes three (3) empty auto service bays.

Upper Point Vicente Area

Uses within this area are described as follows:

- Civic Center Park (including vacant land): This city-maintained park is located directly south of the City Hall structures and consists of manufactured turf areas and a tennis court. On-site, vacant land surrounds the City Hall structures and Civic Center Park to the north, south, east, and west. A subsurface bunker (Point Vicente Bunker Battery #240) and two (2) concrete gun emplacement pads are located west of the City Hall structures within the vacant land area. The Point Vicente Bunker is a buried, single concrete bunker which is not occupied. As illustrated on Exhibit 5.10-1, this bunker is

situated within the UPVA, but, also extends into the adjacent United States Coast Guard (USCG) site which is outside of the Project boundaries. The United States Coast Guard is currently utilizing one small room of the bunker for storage of communications equipment. This storage room is located within both the UPVA and the USCG Site. Access to the interior of the bunker was restricted during the March 2, 1998 and September 6, 2000 site inspections. Two large antennas associated with the communication system within the bunker are located atop the bunker site. In addition, a cellular tower is also located on the Coast Guard property.

- Agricultural Land: The southeastern corner of the UPVA is currently under agricultural production.

- Corporate Yard (former NIKE missile site): The City Corporate Yard is located south of the city park and City Hall structures. The corporate yard consists of a paved area which is currently utilized as a storage area for construction and maintenance materials. Construction materials observed consist of wood, piping, sandbags, dumpsters, concrete piping and landscape debris piles. In addition, a building historically used by Cox Cable is located at the entrance to the corporate yard. Two abandoned NIKE missile silos are located beneath the corporate yard which consist of two large concrete underground vaults, two hydraulic lift elevators and two sound proof control rooms.

Asbestos Containing Material

Asbestos is a strong, incombustible, and corrosion resistant material which was used in many commercial products since prior to the 1940's and up until the early 1970's. If inhaled, asbestos fibers can result in serious health problems. Asbestos Containing Materials (ACMs) are building materials containing more than one percent (1%) asbestos (some state and regional regulators impose a one tenth of one percent (0.1%) threshold).

Resort Hotel Area

Several abandoned structures, in which access was restricted, were noted during the site inspection. Due to the age of the on-site structures, asbestos containing materials may be present.

Upper Point Vicente Area

The structural components of the NIKE silos and Point Vicente Bunker may potentially contain asbestos containing material (ACM), lead-based paints and PCBs.

A March 25, 1996 Federal Facility PA Review identified the Point Vicente Bunker as potentially containing asbestos containing material within the structural components of the facility.

Lead-Based Paints

The U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead in 1978. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or pealing), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants.

Resort Hotel Area

Due to the age of the structures located on the site, the presence of lead-based paint materials is considered likely.

Upper Point Vicente Area

Due to the age of the structures located on the site including the bunker and silos, the presence of lead-based paint materials is considered likely.

Chemical Storage Tanks

During the March 2, 1998 and September 6, 2000 site inspections, the subject site was inspected for fill pipes, vent pipes, areas of abnormal or heavy staining, manways, manholes, access covers, concrete pads not homogenous with surrounding surfaces, concrete build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps.

Resort Hotel Area

No evidence of chemical storage tanks was observed during the March 2, 1998 site inspection. However, in one of the out service bays of the former service station, a concrete sump with a metal cover containing an unknown dark liquid was observed during the site inspection.

Upper Point Vicente Area

Mr. Jim Heinz, Facility Engineer with the United States Coast Guard at San Pedro, indicated that two leaking underground storage tanks (LUSTs) consisting of Number

1 stove oil adjacent to the Point Vicente Bunker northern entrance were removed in approximately 1996. Mr. Heinz also indicated that remedial activities in the form of soil removal was performed on the two underground storage tank sites. The two LUSTs were removed and remedial action was completed. However, according to the Federal Facility PA Review for the Point Vicente Bunker provided by Mr. Heinz, two additional underground storage tanks are suspected to be located adjacent to the bunker. Ventilation pipes protruding from the ground within the USCG site has lead to speculation that two USTs may be associated with the piping. The location of the potential USTs is unknown. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties.

Chemical Storage Areas

Resort Hotel Area

A storage room was located adjacent to one of the former restaurant areas. According to the previous Phase I ESA conducted for the Long Point parcel, small quantities of maintenance supplies, including paint and paint thinners, were observed on wooden shelves. No stains or leaks were observed surrounding the base of the containers. Visual inspection revealed that the paint was fairly old, as it had completely dried in the containers.

A steel-constructed warehouse and helicopter landing pad (painted for movie shoots) is located near the former main entrance to Marineland. The building was previously used for equipment maintenance and graphics production for the operating Marineland park. The warehouse interior is currently used to store equipment and vehicles associated with the maintenance and use of the Marineland park for filming. The building includes a conference room and offices. Dumpsters containing landscaping debris, construction materials, and large spools of cable were observed adjacent to the helicopter pad. No environmental condition associated with the stockpiling of these materials was noted. The previous Phase I ESA conducted for the Marineland facility indicated the presence of small quantities of cleaners, paints and thinners placed on shelves. No leaking or staining was observed on the concrete floor surrounding the materials.

Upper Point Vicente Area

No significant environmental condition associated with the stockpiling of material such as yard waste and other non-hazardous materials was noted.

RBF was unable to gain access to the Point Vicente Bunker located southwest of City Hall. However, a concrete vault adjacent to the north entrance of the bunker was observed to contain wood and paint debris. No staining was noted.

Spills

Resort Hotel Area

No evidence of a spill was observed on this area during the March 2, 1998 site inspection. According to Mr. Jim York of York Long Point Associates, liquid consisting of unknown contents and quantities have been observed within the sealed base vault of the former 300-foot sky tower prior to being sealed. Also, as noted above, a concrete sump with a metal cover located in one of the out service bays of the former service station contained an unknown dark liquid.

Upper Point Vicente Area

Evidence of a possible spill was observed during the September 6, 2000 site inspection. A 100 square foot area of distressed vegetation[1] was observed to the north of the City Hall structures near a concrete slab partially covered with ice plant.

An unknown liquid (possibly rain water) was observed pooling in the lower portion of the concrete floor inside the NIKE facilities.

A previous inspection in 1994, by others, of the interior of the Point Vicente Bunker revealed no visible signs of spills or releases.

Polychlorinated Biphenyls (PCBs)

Resort Hotel Area

No evidence of PCB's was observed during the March 2, 1998 site inspection.

Upper Point Vicente Area

The hydraulic systems associated with the missile elevators in the two NIKE silos are known to contain PCBs. An unknown liquid (possibly rain water) was observed pooling in the lower portion of the concrete floor inside the NIKE facilities.

[1] It should be noted that distressed or dying vegetation is an indicator of a potentially recognizable environmental condition.

Utilities

Resort Hotel Area

Overhead electrical lines were observed within the parking areas located on the east and west portion of this area during the March 2, 1998 site inspection. A concrete mounted transformer was noted adjacent to the southeast corner of the west parking area. A second concrete mounted transformer was noted immediately adjacent to the former sky tower. Piping associated with the sprinkler and fire hydrant system was noted throughout this area. In addition, a sewage pump facility and associated piping, currently inoperable, was observed near the southern border of this area. No environmental condition associated with these utilities was observed.

Upper Point Vicente Area

A cellular tower and concrete mounted transformer was observed adjacent to the northern most City Hall administration building. An electrical vault was noted in the city park area adjacent to the tennis court. A sewage "manhole" was observed in the vacant southern portion of the site within the open space area. Above ground electrical lines containing two pole mounted transformers traverse the northern portion of this area. No leaking or staining associated with the transformers was observed. Air vents and electrical cables (including abandoned electric cables) and abandoned piping associated with the Point Vicente Bunker were observed on the USCG site during the site inspection. As noted previously in this assessment, the piping extending from the ground surrounding the bunker may potentially be associated with two underground storage tanks. Above ground irrigation pipes were noted throughout the agricultural portion of this area. No environmental conditions associated with the above mentioned on-site utilities, except for the piping associated with the Point Vicente Bunker, were observed during the March 2, 1998 and September 6, 2000 site inspection.

Off-Site Observations

An adjoining property is considered any real property or properties that the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 miles of the subject site's border. Visual observations of the publicly accessible portions of adjoining properties were conducted on March 2, 1998 and September 6, 2000 as part of this Assessment and are described below.

Utilities

Typical utilities were observed along Palos Verdes Drive South and Hawthorne Boulevard during the March 2, 1998 and September 6, 2000 site inspections.

Tanks

A Unocal Service Station was observed on the east side of Palos Verdes Drive South, east of Subregion 1. No significant environmental condition associated with the service station was noted.

Hazardous Materials

During a preliminary observation of accessible adjoining properties on March 2, 1998 and September 6, 2000, no visible or physical evidence was observed to suggest that a surface release of petroleum based material has recently occurred. No unusual or suspicious materials handling or storage practices were observed with respect to adjacent properties with one exception: the adjacent Point Vicente Interpretive Center Site (PVIC).

RBF Consulting reviewed information regarding the discovery of lead contaminated soil from the Point Vicente Interpretive Center (PVIC) site. Historical records indicate that a portion of the site was a former rifle and small arms range which was used from the 1940's to the 1970's. Soil on the site contains lead from the rifle range activities. From 1983 to 1984, as part of the development of the park property, the soil mound used for the range was graded. Grading appears to have stayed within the boundaries of the Point Vicente Interpretive Center site. In July 1999, as part of a planned expansion, soil from this site was excavated and transported offsite. Subsequent sampling of soil transported to San Pedro for fill material indicated that lead concentrations had the potential to exceed regulated levels. That soil was transported back to the PVIC site. Soil was also placed in Chandlers Landfill, but subsequently removed to a proper disposal facility.

GOLF COURSE SAFETY

A Peer Review and Safety Analysis for the Long Point Resort Golf Course and Practice Facility was conducted by Kipp Schulties Golf Design, Inc., (September 15, 2000). The analysis was conducted to confirm that the layout, routing and grading would not be in conflict with safety as it relates to residential units, adjacent holes, streets, and pedestrian traffic. The following is an outline of the standards and criteria utilized for the analysis. The actual review, conclusions and recommendations are included in the impact analysis section which follows.

There are no laws which govern the profession of golf course architecture. However, several non-written standards and recommendations have been developed which architects will follow when routing and designing a course. One of these standards is the minimum width for golf hole corridors. These standards, more aptly called recommendations, are what most golf course architects consider

to be their guidelines. They are not legally binding, however, they are used to form the basis for designs. These are the guidelines which are used throughout this analysis.

Several organizations were contacted in an attempt to locate any written documentation for the aforementioned guidelines. These organizations included the American Society of Golf Course Architects (ASGCA), the National Golf Foundation (NGF), the Urban Land Institute (ULI), and the United States Golf Association (USGA). Only the ULI has written recommendations on corridor width included in a book that they co-authored with golf course architect Desmond Muirhead. This information is provided in the Appendix to Appendix 15.11, *Golf Safety Study.* The information provided in these excerpts is highly informative and has been considered for purposes of this analysis. The USGA provided a chart on Accuracy Patterns, has also been included in the Appendix, however, nothing on corridor widths.

Golf Course Routing

A standard method for golf hole corridor widths was developed during the 1960's and 1970's. Many architects still use these standards today. These standards make specific recommendations for the areas around tees, fairway landing areas and greens. These widths are as follows:

Tees. 150 feet for minimal corridor width (75 feet from the center of the tee to the adjacent property boundary or edge of adjacent fairway). This is measured from the center of the back tee.

Fairway Landing Areas. 300 feet for minimal corridor widths (150 feet from the center of the landing area to the adjacent property or to interface with the widths of adjacent fairways).

Greens. 300 feet for minimal corridor width (150 feet from the center of the green to the adjacent property boundary or to interface with the widths of adjacent golf hole corridors).

It should be noted that the edge of the corridor width expands on a straight-line tangent from the 150-foot wide width at the tees to the 300-foot width at fairway landing area.

The minimal distance is more critical as the hole relates to the property boundary than as it relates to an adjacent hole. Therefore, when adequate space is not available, corridor widths on adjacent fairways tend to overlap rather than each fairway being pushed toward the property line. This may make the corridor width of one hole less than the 150 feet from the center of the fairway. While this may create more of a safety concern for golfers on the course, it has no impact on the safety of those outside the perimeter of the course.

It is typically the preference of both the architect and developer that errant golf balls remain on the golf course property rather than that they go off the property. To compensate for the reduction in width between adjacent holes, the architect typically designs more mounding between the holes that may be covered in landscaping to "knock down" errant shots from going into opposite fairways.

The accepted standard lengths for each par are as follows:[2]

- Par 3's - 235 yards or less
- Par 4's - 270 yards to 470 yards
- Par 5's - 471 yards or more (not exceeding approximately 630 yards)

Par 4's and Par 5's typically have the landing area at a distance of 800 feet off the center of the back tee. The second landing area on par 5's is typically 600 feet from the center of the first landing.

These standards of corridor width are still considered acceptable and form the basis for this peer review and safety analysis.

EMERGENCY RESPONSE PLANS

General Plan (Civil Defense and Disaster)

The City of Rancho Palos Verdes, together with other South Bay member cities, make up the Area "G" County Civil Defense and Disaster Planning Board Region I of the State of California. This organization provides cities with disaster planning assistance, public information, and coordination of action programs and mutual aid agreements. The Emergency Operating Plan (EOP) is a document which sets forth the functions and resources of the City during a disaster. In addition, a plan for Standard Operating Procedures (SOP) identifies specific actions that are necessary when a disaster occurs. Some of the components which are included in the SOP are listed below:

- Emergency communications,
- Disaster routes,
- Medical facility locations,
- Emergency Operation Center (location and staffing), and
- Emergency utilization of resources.

[2] The ULI has, in recent years, increased their recommended width for golf hole corridors. This is due to the tightening relationship between golf course and residential areas and because golfers are now hitting shots much further than they have in the past – mainly due to new technology in golf equipment (see the Appendix to Appendix 15.11, Golf Safety Study). These new standards increase the corridor widths around tees from 150 feet to a minimum of 200 feet, around fairway landing areas from 300 feet to at least 350 feet, and around greens from 300 feet to a minimum of 350 feet.

Figure 39, *Disaster Routes*, of the General Plan, depicts the various evacuation routes throughout the City. Two streets located adjacent to the Project area are indicated as disaster routes: Palos Verdes Drive South and Hawthorne Boulevard.

SEMS Multihazard Functional Plan

In 1997, the City of Rancho Palos Verdes adopted the Emergency Operating Plan: SEMS Multihazard Functional Plan (MHFP). The MHFP addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The operational concepts reflected in this plan focus on potential large scale disasters which can generate unique situations requiring unusual emergency responses.

According to Attachment 2, Threat Summary 3, *Map of Evacuation Routes*, of the MHFP, there are no areas depicted as evacuation routes in the immediate Project area. The area nearest to the Project site depicted as an Evacuation Route is a segment of Palos Verdes Drive West located north of the Hawthorne Boulevard/Palos Verdes Drive South intersection.

Additionally, it should be noted that the City is a member of the California Master Mutual Aid Agreement, which provides for disaster assistance from other California cities after a major disaster has been declared by the Governor.

Flood Control. In Rancho Palos Verdes, flood control is normally the responsibility of two County agencies: the Road Department and the Flood Control District. In emergency situations, such as flash flooding and mud flow, each of these agencies would carry out respective emergency operations until the immediate danger has passed.

According to Attachment 1, Threat Summary 3, *Flood Hazard Map*, of the MHFP, there are no areas of potential roadway flooding located in the immediate Project area. The area nearest to the Project site depicted as Potential Roadway Flooding is a segment of Palos Verdes Drive West located north of the Hawthorne Boulevard/Palos Verdes Drive South intersection.

IMPACTS

Significance Criteria

Significance thresholds in this Section are based on the CEQA Appendix G Environmental Checklist Form as indicated below.

CEQA Appendix G Thresholds

A potentially significant impact health would occur if the Project caused one or more of the following to occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (refer to Impact Statement No. 5.10-1);

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Emit hazardous emissions or handle hazardous or acutely hazardous, substances, or waste within one-quarter mile of an existing or proposed school (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (refer to Section 10.0, *Effects Found Not To Be Significant*);

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project resulted in a safety hazard for people residing or working in the project area (refer to Section 10.0, *Effects Found Not To Be Significant*);

- For a project within the vicinity of a private airstrip, if the project resulted in a safety hazard for people residing or working in the project area (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (refer to Impact Statement No. 5.10-2);

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands (refer to Section 5.11, *Public Services and Utilities*); and

- If the project has environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly (refer to Impact Statement No. 5.10-3).

Potential impacts associated with the proposed Project have been identified. The impacts are categorized according to topic then numbered consecutively under

each category. Mitigation measures at the end of this Section directly correspond to the numbered impact statements below.

HAZARDOUS MATERIALS

5.10-1 *Implementation of the proposed Project may create a significant hazard to the public and the environment through the disposal of hazardous materials. Implementation of the specified mitigation would reduce impacts to a less than significant level.*

Resort Hotel Area

Site Conditions. The following areas of concern were documented during the site inspections on March 2, 1998 and September 6, 2000, and are illustrated on Exhibit 5.10-1, *Areas of Concern*.

- A sump within the concrete floor of the former service station was noted containing an unidentified liquid;
- The sealed subsurface vault associated with the former 300-foot sky tower has been reported to contain an undetermined quantity of an unknown liquid with an oily sheen (possibly as a result of the former operation of the hydraulic system associated with the sky tower); and
- Numerous abandoned structures associated with the former Marineland Aquatic Park were noted. These structures may potentially contain asbestos containing material (ACM) and lead-based paints.

Historical Use Information. Review of available environmental documentation and interviews indicate that previous uses within the RHA may have resulted in potential adverse environmental conditions. Specific uses include some of the former Marineland structures and the agricultural operations.

Based upon the site inspection, review of available historical aerial photographs, and interviews, portions of the RHA were historically used for agricultural purposes for several decades. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned may have been used throughout the subject site. It should be noted that the historical use of agricultural pesticides may have resulted in pesticide residues which persist in the soil at concentrations that are considered to be hazardous according to established Federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil present potential health concerns. While there is no requirement that agricultural soil be tested prior to development, many developers and lenders throughout the United States are requiring that sites

proposed for development undergo an evaluation of environmental conditions. Thus, with this information disclosed, it is required that the Applicant conduct additional environmental review (i.e., Phase II) to determine the absence or presence of pesticide residues, and if present, to determine how the soils would be handled (i.e., Risk Assessment).

Impacts associated with the site conditions and the historical use of the RHA are considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified mitigation measures.

Upper Point Vicente Area

Site Conditions. The following areas of concern were documented during the site inspections on March 2, 1998 and September 6, 2000, and are illustrated on Exhibit 5.10-1, *Areas of Concern*:

- Piping, potentially associated with two suspected underground storage tanks (USTs), was observed adjacent to the Point Vicente Bunker site within the USCG site. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties.

- A 100 square foot area of stressed vegetation near a concrete slab was observed to the north of the City Hall structures, halfway down the adjacent slope. The purpose/use of the concrete slab which was breaking apart could not be determined. One pipe partially extending out of the concrete slab was observed near the center of the slab. No staining of the observable portions of the slab was noted.

- A pipe and wood structure was observed to the west of the concrete slab at the end of an abandoned asphalt roadway in the northern portion of the UPVA. The purpose/use of these noted objects could not be determined. It should be noted that no staining in the area of these objects was noted.

- The structural components of the NIKE silos and Point Vicente Bunker may potentially contain asbestos containing material (ACM), lead-based paints and PCBs.

Historical Use(s) Information. Review of available environmental documentation and interviews indicate that previous uses within the UPVA may have resulted in potential adverse environmental conditions. Specific uses include the military use and the agricultural operations.

Historical operations within the UPVA are not well documented. It is believed that the types of materials used and types of wastes generated from past operations

would include pesticides, polychlorinated bipheyls (PCBs), petroleum products, organic solvents, explosive ordnance and NIKE missile propellants. Surveys conducted by the military indicated that the risk associated with explosive ordnance and missile propellants is low as these materials have been removed from the area. Pesticides are associated with agricultural uses (refer to the discussion below). PCBs could be found in the transformers and the hydraulic lifts within the NIKE facilities. Petroleum products would have been stored in the known and suspected underground storage tanks associated with Battery #240. Organic solvents would include degreasing solvents, paint thinners/paint removers.

Based upon the site inspection, review of available historical aerial photographs, and interviews, portions of the UPVA are/were historically used for agricultural purposes for several decades. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned may have been used throughout the subject site. Refer to the discussion above regarding the historical use of agricultural pesticides.

Impacts associated with the site conditions and historical uses on the UPVA are considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified mitigation measures.

Public Records

Available public records were reviewed by VISTA Information Solutions, Inc. on August 25, 2000. The purpose of this research was to verify if there are sites located within the subject site boundaries or within a 1-mile radius of the subject site, which have been reported as contaminated or that generate hazardous materials. The lists which were reviewed identified that two (2) sites are reported within the boundaries of the subject site and no listed regulatory sites are within a one-mile radius of the subject site. None of the identified sites appear to be a potential environmental concern with regards to the subject site due to their status. Therefore, a significant impact would not occur in this regard.

Other Potential Sources of Hazardous Material

The presence of hazardous materials on the subject site that may have been generated from adjacent properties was not visually or physically evident.

As previously noted, lead contaminated soil was discovered on the Point Vicente Interpretive Center site. Sampling of this soil indicated that lead concentrations had the potential to exceed regulated levels. Based on review of existing information and historical aerial photographs it does not appear that operations on the PVIC site would have impacted the UPVA. Therefore, a significant impact is not anticipated in this regard.

GOLF COURSE SAFETY

5.10-2 *Development of the proposed golf course and practice facility may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*

The proposed Long Point Resort Golf Course was routed using the standard method for golf hole corridor widths identified in the *Existing Conditions* discussion. The Golf Course Safety Analysis was conducted to confirm that the layout, routing and grading of the proposed golf course and practice facility would not create safety concerns with respect to residential units, adjacent holes, streets, and pedestrian traffic. A hole by hole analysis was conducted through which it was determined that in general, the golf course as designed would work well with respect to both safety and playability based on the aforementioned standards (refer to Appendix 15.11, *Golf Course Peer Review and Safety Analysis*).[3] Based on the analysis, it was concluded that each hole within the Long Point Resort Golf Course is consistent

[3] Long Point Resort Golf Course Peer Review and Safety Analysis, Kipp Schulties Golf Design, Inc., September 15, 2000, page 12.

with the accepted standard lengths for each par.[4] The analysis also concludes that the proposed golf course would contain areas where adjacent fairways, tees, and greens would infringe on each other (i.e., less than 200 feet from center to center).[5] Based on these findings, the analysis identified recommendations for mitigating the safety adjacent to each golf play area and to surrounding uses (refer to Appendix 15.11). The following are the recommendations for each golf course hole:

Hole # 1

Additional support (i.e., higher mounding) along the parking area with vegetation provided would better contain errant shots from hitting parked cars. The back tee should be moved slightly to the left for two reasons: First, there is very little containment on the grading plan to collect errant shots from the elevated sixth hole which may roll down toward the first tee area. Secondly, the more that the tee shot can be angled towards the left side property boundary (aiming the tee shot back to the center of the landing area), the less likely that players would hit shots into the parking area left of the hole. This may help avoid conflicts with both vehicles and pedestrians.

Hole # 2

A concern exists regarding errant shots landing on Palos Verdes Drive South to the left of the hole. To improve this situation, the back two tee complexes should be moved more to the left and down the slope. This would create more of an angle into the containing slope on the right and better direct shots away from the road. However, while still good, the golf course would have to sacrifice views from the tees.

Additionally, because the hole is so far downhill, many longer hitters may be able to drive the ball over the bunker on the inside left of the landing area. The sand bunker should be moved more toward the green. This way it would serve as a containment or saving bunker rather than an obstacle for longer hitters to play over with their tee shots.

Hole # 3

It is recommended that this hole be a Par 4. The green should be located beyond the shallow draw near what is now the proposed second landing area. As the plan is proposed, the second landing area is 85 feet from the property boundary to the left and 100 feet the centerline of the 4th hole. This is unacceptable based on industry standards for golf hole corridor widths. The 3rd fairway does not address the issue of the blind shot. If there were no other holes or property boundaries on

[4] Ibid., Page 2.

[5] Ibid., Page 3.

either side of this hole, the blind shot would not be a concern. However, that is not the case for the proposed golf course design.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary. This is considered one of the most useful landforms on the course.

The landform to the right of the first landing should be retained, however, the fairway area shall be cut by five to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway would be at 355 feet while the sides (rough areas) would be five to ten feet higher. This would help remove the "blind" shot in the process.

In summary, it is recommended that the first landing area be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

There isn't enough room to get the third hole's second landing area and green complex in the same small area as the 4th tee complex. This is due to the property boundary left of the third hole and the steep slope to the left of the 4th tee complex. As it is shown, the second landing area of the third hole is less than 100 feet from the property boundary (the center line gets as close as 70 feet from the property boundary just short of this landing area). Additionally, there is a pedestrian trail (and cart path) proposed between the property boundary and the third hole all within this 100 foot area separating the second landing area and the property boundary. There is a significant potential for conflict with errant shots landing on or near the pedestrian trail in this area.

To avoid conflicts with shots going into the pedestrian area or off the property, the second landing area would need to be moved to the right approximately 80 to 100 feet (at the very least). However, by moving this over to the right, the second landing area would then be in the direct flight path of shots off the fourth tee – a very dangerous situation for players on the third hole.

Two possible options are recommended regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4

The design of this hole provides containment in the fairway by having the outside edge of the dogleg (left edge) much higher than the landing area. This would help keep shots away from the fifth tee location.

There is additional room to move the fifth tee location to the South by 35 to 40 feet if a retaining wall is used similar to that around the fourth tees. By doing this, the landing area on the fourth could move over by 30 feet or so and would better the relationship with the third hole's second landing area. Signage on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee is also recommended.

Additionally, as with the third hole, lowering the overall profile of the entire third and fourth fairways for better vision with each shot is recommended.

Hole # 5

This hole should be shortened slightly by moving the green back towards the tee. As an option, dense vegetation of medium height should be added to screen against long shots landing near the pedestrian trails. For playability, two or three more bunkers should be added down the slope to the right of the green. The majority of players would slice the ball (hit it to the right). If the greenside bunker is missed, there is nothing to prevent golf balls from going all the way down the slope. The additional bunkers may help the speed of play and also create a complex of greens as seen from the upper tees. The back tee should be moved to the South as discussed on the previous hole.

Hole # 6

A bunker or strong shaping (grass hollows) should be provided between the sixth green and first tee. Errant shots to the right of the green have nothing to contain them from rolling down toward the first tee complex. Also, the back tee on the first hole should be moved slightly left (closer to the property boundary).

Hole # 7

Additional support (i.e., higher mounding) should be provided on the back left if possible. Also, The cart path should be moved behind the back tee and down the left-hand side. The cart path in front of these tees would take away from the visual aesthetic beauty of this hole from both the tees and Clubhouse area.

Hole # 8

The landform to the right of the eighth tees should be landscaped to protect players from shots off the ninth tee. The ninth tee shot is from a high elevation causing the ball to carry much father than if play were to a landing area that was level with the tees. These tees (eighth) would be in play from longer hitters off the ninth tees.

Hole # 9

Vegetation should be added to the right area support, just past the landing area to create separation and protect players on the eighth tees from long shots off the ninth. Taller (15 –20 feet), denser vegetation in this location would have no effect on views from the surrounding hillsides. Walking trails should be screened with small to medium height vegetation near the landing to avoid any potential problems from shots pulled to the left.

Unless mitigated, safety impacts associated with the proposed golf course would be considered significant. Mitigation requiring that each of the recommendations identified above be implemented would reduce impacts in this regard to a less than significant level. Mitigation requiring that the golf course design be subject to final review and approval by the City would further reduce the potential impacts in this regard to a less than significant level.

Practice Facility

The Golf Safety Study also concluded the following regarding the proposed practice facility (driving range):

- The range runs directly to the east from a tee at elevation 240 (approximately). Golfers using the range would hit shots uphill (east) to a number of target greens evenly spaced throughout the range. The range is shorter than normal at only 700 feet from the front of the tee to the back of the range. However, because of the vertical rise from tee to landing area, the majority of golf balls would never reach the opposite end. If they do, the native vegetation and continued rise in vertical elevation would certainly knock them down from having any potential of reaching Hawthorne Boulevard.

- The range is graded to contain shots. The architect generally “cut” the range into the hillside, which created the natural containment north and south. The south side is well framed by the existing hillside. If this ground where this range was planned was level, the greatest concern would be for the City buildings to the south as the majority of golfers slice the ball (hit it to the right/south). However, because there is nearly 120 feet of vertical elevation, it is extremely unlikely that any one could hit a ball that far and right/south.

It should be noted that concern has been raised regarding the safety of the residential units situated north of the range, specifically, regarding golf balls entering their property. By “cutting” in the range, the architect has naturally created a berm or landform along the north/left edge of the driving range. This light berming would help contain errant shots. If there were no homes north of the range, the architect would simply push this berm out to the north, raise it 10 to 15 feet, and then plant

vegetation on top of the berm. This would collect nearly every errant shot. However, in the case of this particular driving range, any kind of tall berm would be unacceptable as it would potentially obstruct views from these adjacent residences.

A low area running along the northern boundary of the UPVA exists between the proposed range and the residential units. This low area is a fire break that sits in a small valley with the floor of the residential units approximately 10 feet above it (as one would look straight south from each unit). This low, or draw as it is sometimes called, would go a long way to insuring that no golf balls reach the residential units (particularly if the area between the edge of the range and the property boundary is revegetated with low growing dense materials). Any ball that does happen to get over the berm on the north edge of the range would not get much further once it lands in this area.

There is one other beneficial buffer, that being elevation. The lowest elevation of the residential units is at least 20 to 25 feet higher than the driving range tee. Hitting uphill would make for shorter shots off the tee creating less of a likelihood that shots would reach residential home sites.

The driving range tees are laid out such that they play away from the residential units on the north as much possible. With the tee on the left/north in the shape of an arc (away from the left side), it would be nearly impossible for anyone from this tee to hit a shot towards the residential units. The only real concern, if there is one, would be from players on the right side tee that can hit the ball a long way and pull it or hook it at the same time.

The corridor width of the driving range is adequate as measured from the edge of the range to the property boundaries. There is 150 feet from the left edge of the range to the residential units at its closest point. From the center of the range to the property boundary is nearly 300 feet (the golf course uses 150 feet from the center of the fairway to the residential property line).

According to the Golf Safety Study, there is no alternative way that the range at this location could be designed given all of the constraints.[6] The range plays into a steep hillside, is graded to collect balls toward the center and there is adequate buffer distance between the north edge of the range and the property boundary.

However, the Study has identified two alternative modifications to the range's design to improve it's relationship with the residential home sites:

- To excavate out the low area between the range and property boundary. Decrease the range's elevation by between 10 and 15 feet and then revegetate it with native materials. Although considered a

[6] Ibid., page 12.

small benefit to aid in the containment of shots, it would be considered an improvement on the current design; or

- Lower the elevation of the driving range tee to approximately 230 feet (is considered more effective than the previous modification). The increased difference in elevation between the tee and the residential home sites would decrease the chances of shots reaching the property boundary.

Safety impacts associated with the practice facility would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified measures requiring incorporation of the design modifications identified in the Golf Safety Study.

EMERGENCY RESPONSE PLANS

5.10-3 *Implementation of the proposed Project may impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan for the area. Analysis has concluded that compliance with the City Development Code would result in a less than significant impact.*

General Plan (Civil Defense and Disaster)

As previously noted, two streets located adjacent to the Project area are indicated as disaster routes: Palos Verdes Drive South and Hawthorne Boulevard. Modifications to Hawthorne Boulevard are not proposed as part of the proposed Project. However, Project implementation would involve modifications to Palos Verdes Drive South including the following:

- Access to the resort hotel is proposed via Palos Verdes Drive South at the existing access to the former Marineland project, opposite Crestmont Lane. A 4-lane divided entry is proposed to allow right and left turns onto Palos Verdes Drive South and allow right and left turns into the resort hotel.

- Access to the practice facility is proposed off of Palos Verdes Drive West adjacent to an existing emergency access roadway to the Villa Capri townhouse development.

- Access to the golf maintenance facility is proposed from Palos Verdes Drive South via the alignment of an existing unpaved dirt road.

- One golf cart tunnel crossing is proposed under Palos Verdes Drive South which would connect the RHA with UPVA by a tunnel system under Palos Verdes Drive South.

It is anticipated that traffic flow would be temporarily impacted during construction of these proposed improvements. However, Project compliance with City Development Code 12.04.040, Section 128, would be required. This Section of the Code specifically states the following with respect to street construction:

> *"Any-person engaged in performing work regulated by this Chapter which interferes with or endangers the safe movement of traffic shall have the work safeguarded by adequate warning signs, barricades, lights and devices. He shall be responsible for placing and maintaining adequate warning signs, lights, barricades and devices during all periods of his activity in order to promote the safe movement of traffic including but not limited to periods of twilight, fog and/or rain. All warning signs, barriers, barricades, flags, and other devices shall comply with or exceed the standards required in the Vehicle Code. Traffic controls throughout permit construction shall conform to the current State of California "Manual of Warning Signs, Lights and Devices for Use in Performance of Work Upon Highways."*

Impacts associated with the Emergency Response Plan would be considered as less than significant after compliance with the Development Code.

Further, it should be noted that the proposed Project is limiting development and improvements to the UPVA and RHA. The proposed access improvements are being designed to facilitate adequate traffic movement for peak hour conditions which would also ensure adequate emergency condition vehicular movement from the Hotel site and along the adjacent roadway network. Therefore, it is anticipated that the Project would not have a significant impact relative to the implementation or interference with emergency response/evacuation plans.

SEMS Multihazard Functional Plan

According to Attachment 2, Threat Summary 3, *Map of Evacuation Routes*, of the MHFP, there are no areas depicted as evacuation routes in the immediate Project area. Therefore, a significant impact would not occur in this regard.

FIRE ANTS

5.10-4 *Development of the proposed golf course and practice facility may introduce fire ants which may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*

The introduction of non-native wildlife species, especially the fire ant, is of particular concern to the development of the UPVA and RHA. Fire ants (Solenopsis sp.) occur from North Carolina south to northern Florida, along the Gulf Coast and west to California. Colonies in landscape areas may be observed as mounds or more

commonly may be constructed under the cover of stones, boards, and other objects or at the base of plants. Ants could be imported to the UPVA, RHA, and adjacent areas by infected nursery stock. Golf courses are especially attractive to fire ants due to the ideal conditions that exist there: irrigation water; fertile soil, open sunny areas, and electrical wires and their associated magnetic fields or impulses. Fire ants have a severe bite and sting and will attack anything that disturbs their nest. Unless mitigated, the potential infestation of the Project site by fire ants is considered potentially significant due to the resulting potentially serious medical threat to visitors of public and private lands on and adjacent to the Project site. Implementation of the specified mitigation, including the inspection of all nursery stock/other items and development of a management program, would reduce impacts in this regard to a less than significant impact.

CUMULATIVE IMPACTS

5.10-5 *The proposed Long Point Resort, in combination with other cumulative projects, may increase exposure of the public to hazardous substances, or interfere with emergency response plans.*

Compliance with local, State and Federal regulations would ensure that contamination or exposure to hazardous substances is avoided or controlled to minimize the risk to the public on a case-by-case basis as the cumulative projects are constructed. Review of the development proposals relative to emergency response plans would be conducted by the City and mitigation required as necessary on a project-by-project basis.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements in the Impact subsection.

HAZARDOUS MATERIALS

5.10-1a Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the concrete sump located in the former service station in the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1b Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the liquid contained within the vault of the former sky tower on the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1c Prior to Demolition Permit issuance, site specific investigations shall be conducted to determine the contents of the interior of all structures on the RHA. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to renovation/demolition activities.

5.10-1d If during demolition any of the structures, paint is separated from the building materials (e.g., chemically or physically), the paint waste shall be evaluated independently from the building material to determine its proper management. According to the Department of Substances Control, if paint is not removed from the building material during demolition (and is not chipping or peeling), the material could be disposed of as construction debris (a non-hazardous waste). The landfill operator shall be contacted in advance to determine any specific requirements they may have regarding the disposal of lead-based paint materials.

5.10-1e Prior to the commencement of any remedial work and consistent with the National Emission Standards for Hazardous Air Pollutants (NESHAP), building owners shall conduct an asbestos survey to determine the presence of Asbestos Containing Materials (ACMs). Prior to Demolition Permit issuance, areas shall be sampled as part of an asbestos survey.

5.10-1f Any demolition of the existing building shall comply with State law, which requires a contractor, where there is asbestos-related work involving 100 square feet or more of ACMs, to be certified and that certain procedures regarding the removal of asbestos be followed.

5.10-1g Soil sampling of the agricultural portion of the RHA shall be conducted to determine the presence or absence of banned agricultural pesticides, prior to Grading Permit issuance.

5.10-1h Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the level of potential contamination associated with the historic use of the UPVA. The focus of the investigation shall include, but not be limited, to the following:

- Determine the actual absence or presence of the suspected underground storage tanks located near the Point Vicente Bunker. If determined present within the UPVA, soil sampling and/or testing to determine the characteristics and extent of potential contaminants shall be performed. Upon completion of soil testing and/or sampling, a Risk Assessment shall be prepared to determine the appropriate measures for remediation of the tank sites; and

- The 100-square foot area of distressed vegetation located adjacent to the abandoned concrete slab in the northern portion of the UPVA shall be examined to determine the potential for a release of hazardous materials. In addition, a subsurface investigation shall be conducted to determine if any other structures or substances are located below the concrete slab. Any stained soil shall be tested to determine the absence or presence of hazardous materials.

5.10-1i Prior to Demolition Permit issuance, the Project Applicant shall coordinate with the appropriate authorities from the United States Department of Interior, National Park Service regarding any proposed modifications to the Nike missile silos.

5.10-1j Prior to Demolition Permit issuance or modification to the Point Vicente Bunker, a site specific investigation to determine the contents of the interior shall be conducted. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to modification/demolition activities.

5.10-1k Prior to Grading Permit issuance, soil sampling of the agricultural portion of the Upper Point Vicente Area shall be conducted to determine the presence or absence of banned agricultural pesticides.

GOLF SAFETY

5.10-2a The proposed golf course design shall be modified prior to Development Plan approval, to the satisfaction of the Planning Department, pursuant to the recommendations cited in the Golf Safety Study contained in Appendix 15.11, *Golf Course Peer Review and Safety Analysis*, of this EIR (September 15, 2000) as follows:

Hole # 1. Additional support (i.e., higher mounding) shall be added along the parking area by providing vegetation on top of the mounding. The tee shall be moved back slightly to the left.

Hole # 2. The back two tee complexes shall be moved to the left and down the slope. The sand bunker shall be moved toward the green.

Hole # 3. This hole shall be made a Par 4. The green shall be located beyond the shallow draw near what is now the proposed second landing area.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary and shall be retained, however, the fairway area shall be cut by five

to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway shall be at 355 feet while the sides (rough areas) shall be five to ten feet higher.

The first landing area shall be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

One of the two following options shall be implemented regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4. The fifth tee location shall be moved to the south by 35 to 40 feet and a retaining wall provided similar to that around the fourth tees. The landing area on the fourth shall move by approximately 30 feet. Signage shall be provided on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee. The overall profile of the entire third and fourth fairways shall be lowered for improved vision with each shot. Also refer to the Hole #3 discussion.

Hole # 5. Two or three more bunkers shall be added down the slope to the right of the green. The back tee shall be moved to the south. One or the other of the following recommendations shall be implemented:

- The hole shall be shorted slightly by moving the green back towards the tee; or

- Dense vegetation of medium height shall be added to screen against long shots landing near the pedestrian trails.

Hole # 6. A bunker or strong shaping (grass hollows) shall be provided between the sixth green and first tee. The back tee on the first hole shall be moved to the left slightly (closer to the property boundary).

Hole # 7. Additional support (i.e., higher mounding) shall be added on the back left. The cart path shall be relocated behind the back tee and down the left-hand side.

Hole # 8. The landform to the right of the eighth tees shall be landscaped to protect players from shots off the ninth tee.

Hole # 9. Vegetation shall be added to the right hand support (higher mounding) past the landing area. The walking trails shall be screened with small to medium height vegetation near the landing.

5.10-2b The Project Applicant shall, to the satisfaction of the Planning Department, implement one or the other of the following modifications to the practice facility's design prior to Development Plan approval:

- The low area between the range and property boundary shall be excavated out. The range's elevation shall be decreased by between 10 and 15 feet and then revegetated with native materials; or

- The elevation of the driving range tee shall be lowered to approximately the 230-foot elevation.

EMERGENCY RESPONSE PLAN

5.10-3 No mitigation measures are required.

FIRE ANTS

5.10-4a Prior to delivery to the UPVA and the RHA, all nursery stock and other items likely to carry fire ants shall be inspected for their presence and identified as free of ants by the landscape and native plant nursery used for the Project.

5.10-4b The Project Applicant shall develop for the suppression of fire ants a Fire Ant Management Program. The Program shall be included as part of the Landscaping Plans for both the UPVA and RHA and shall be submitted for review and approval to the City Planning Department prior to Landscape Plan approval. The Program shall include measures that (1) identify appropriate treatments that can be administered most effectively and at the right times, (2) identify the area to be managed and establish a level of acceptable pest presence/damage/tolerance, (3) establish regular monitoring visits as part of the landscape maintenance program, and (4) treat infestation when monitoring indicates that the situation exceeds the established level of presence.

CUMULATIVE IMPACTS

5.10-5 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Public Health and Safety have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

5.10 PUBLIC HEALTH AND SAFETY

This Section addresses potential impacts related to the physical condition of the site and adjacent uses due to the historic activities that have occurred on the Project site. Potential contamination on-site is discussed in this Section. This analysis includes a review of historic and existing on-site land uses and their associated activities. A review of Federal, State and local agency's databases of reported (suspect and/or known) hazardous materials and waste contamination sites located within the Project site and a one mile radius is presented. Potential safety issues associated with the use, storage, emission, disposal, and transport of hazardous waste on, and in the immediate vicinity of the proposed Project area is discussed.

Information in this section is based on the City of Rancho Palos Verdes General Plan, the Long Point Golf Course Plan Review and Safety Analysis (Kipp Schulties Golf Design, Inc., September 12, 2000) and the Phase I Environmental Site Assessment (ESA) (RBF Consulting, September 15, 2000).

EXISTING CONDITIONS

HAZARDOUS MATERIALS

A Phase I ESA was prepared to evaluate the potential presence of hazardous materials and the expected nature of the material that may be on the subject site addressed within the ESA. The subject site is located on the Palos Verdes Peninsula and is comprised of two separate geographical areas consisting of the Resort Hotel Area (RHA) (former Marineland Aquatic Park) and the Upper Point Vicente Area (UPVA) (refer to Exhibit 3-2, *Project Vicinity*).

Historical Site Usage

The following historical information is based upon review of available historical maps and documents, available public information, interviews, and a review of a series of historical aerial photographs dating from 1953 to 1995.

Interviews

Los Angeles Air Force Base

RBF interviewed Mr. John Ryan, Public Affairs Specialist with the Los Angeles Air Force Base, concerning historic uses associated with the NIKE missile silo sites within the UPVA (March 9, 1998). Refer to Section 4.0, *Potential Areas of Environmental Concern*, as well as documentation contained within Appendix B, of Appendix 15.10, *Phase I ESA*, for a detailed discussion regarding the NIKE missile silos.

United States Coast Guard ISC San Pedro Facilities Engineering

RBF interviewed Mr. Jim Heinz, Facilities Engineer with the United States Coast Guard at San Pedro (March 9, 1998). Mr. Heinz indicated that two leaking underground storage tanks (LUSTs) encased in two separate concrete vaults were removed directly adjacent to the Point Vicente Bunker located in the UPVA in approximately 1996. Remedial corrective measures were performed and the site was fully remediated (refer to Section 4.0, *Potential Areas of Environmental Concern)*.

California Water Service Company

RBF interviewed California Water Service (CWS) staff which indicated that there are no potable groundwater wells located on the Palos Verdes peninsula. All potable water service is provided by CWS through purchases from the Metropolitan Water District.

Documentation

Historical Documentation (Former U.S. Army Property)

Mr. David Snow, Deputy Planning Director for the City of Rancho Palos Verdes, provided two untitled historical information packets regarding the UPVA which was formerly owned and operated by the United States Army as a missile (NIKE) site and gunnery range until 1974. According to the documentation, the site was acquired in 1942 for the purpose of the construction of Battery #240. During the 1950's and 1960's, the site was home to the administration and launch facilities for both the Nike Ajax and Nike Hercules anti-aircraft missiles. It was designated as LADA (Los Angeles Defense Area) #55, a part of the air defense system of Los Angeles. By the early 1970's the Nike defense system was obsolete.

Several (remediation) projects were identified by the military as part of the abandonment of Battery #240 and Nike Battery #55 on the UPVA. They included the following:

- The removal of two 500-gallon underground storage tanks and associated piping was identified for Point Vicente Bunker Battery #240.

- The removal of three abandoned fuel storage tanks and sampling and disposal of seven 55-gallon drums were projects identified for the Nike facilities. Soil sampling was also to be included around these identified areas as well as in the area of the former paint storage shed, acid storage and fueling facilities.

Federal Facility PA Review-Point Vicente Bunker

RBF reviewed a Federal Facility PA Review (refer to Appendix B, *Documentation*, of Appendix 15.10, *Phase I ESA*) for the Point Vicente Bunker dated March 25, 1996. As illustrated on Exhibit 5.10-1, *Areas of Concern,* this bunker is situated within the UPVA, but, also extends into the adjacent United States Coast Guard (USCG) site which is outside of the Project boundaries. This report documented the potential threat associated with two (2) suspected underground storage tanks (UST) located adjacent to the bunker. The location of the potential USTs is unknown. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties. Additionally, this report documented asbestos containing material (ACM) and lead-based paints (LBPs) associated with structural components of the bunker. These two suspect USTs are in addition to the two LUSTs which were removed from the northern entrance to the Point Vicente Bunker in 1996.

Battery 240 General Plan Map

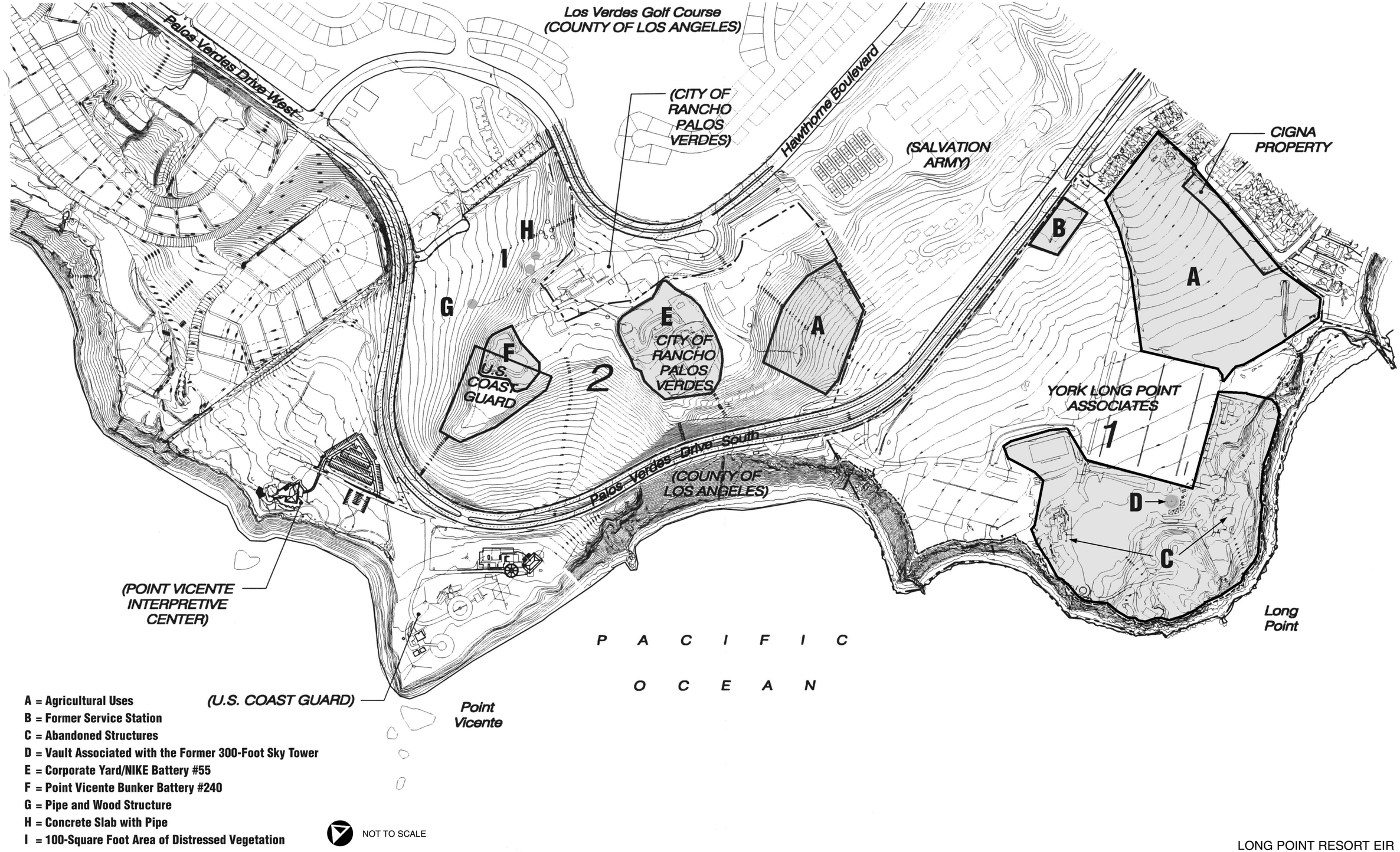
According to the Battery 240 General Plan Map, dated January 14,1944, two USTs are located along the access road to Battery 240. These two tanks are believed to be the two LUSTs which were removed and the area remediated in 1996.

Environmental Site Assessment-Rancho Palos Verdes Resort Assessment #6150000195

The Phase I Environmental Site Assessment (ESA) dated October 1992 identifies the RHA's past land uses as the Marineland Aquatic Park. This document provides a detailed regulatory database review and inventory of existing and past structures located within this parcel. In addition, this document identifies the former visitor information center as a service station.

Building Department Records

Building Department Records are those records of the local government in which the subject site is located indicating permission of the local government to construct alter, or demolish improvements on the property. The purpose of the records review was to obtain and review building permit records which would help to evaluate potentially recognizable environmental condition(s) which could be connected with the subject site. Although information concerning tenant improvements/alterations



A = Agricultural Uses
B = Former Service Station
C = Abandoned Structures
D = Vault Associated with the Former 300-Foot Sky Tower
E = Corporate Yard/NIKE Battery #55
F = Point Vicente Bunker Battery #240
G = Pipe and Wood Structure
H = Concrete Slab with Pipe
I = 100-Square Foot Area of Distressed Vegetation

NOT TO SCALE

RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Areas of Potential Concern

Exhibit 5.10-1

and other miscellaneous modifications were located during the research, this information did not contain information relevant to this Assessment.

Resort Hotel Area. Review of available building permits (as contained within Environmental Site Assessment Rancho Palos Verdes Resort Asset #6150000195) provided a history of structural improvements within this area. No adverse environmental conditions were noted during review of available building and use permits. For this area, numerous building, grading, electrical, plumbing, special use and construction permits were issued for the subject site related to the original construction of Marineland. A summary of building records is provided in Appendix 15.10, *Phase I ESA*.

Upper Point Vicente Area. Due to the previous ownership by the federal government, no building permits were available for review at the Rancho Palos Verdes City Hall.

Recorded Land Title Records

Recorded land titles are records usually maintained by the municipal clerk or county recorder of deeds which detail ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against the subject site within the local jurisdiction having control for or reporting responsibility to the subject site. Due to state land trust regulations and laws, land title records will often only provide trust names, bank trust numbers, owner's names, or easement holders, and not information concerning previous uses or occupants of the subject site. Additionally, environmental liens recorded against the subject site are, at times, considered outside the scope of recorded land title records. For these reasons, this Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than recorded land titles.

City Directory Searches

City Directories, published by private companies (or sometimes the government), provide a chronological sequence of past site ownership, occupancy, and/or uses for a property by reference of an address. This type of search is particularly effective and primarily used to determine the past uses of commercial properties. As such, this Assessment has relied upon other standard historical information sources assumed to be either more accurate or informative than City Directory Searches.

Sanborn Fire Insurance Maps

Sanborn Maps contain detailed drawings which indicate the location and use of structures on a given property during specific years. These maps were originally produced to show buildings in sufficient detail for insurance underwriters to evaluate fire risks and establish premiums, but now are utilized as a valuable source of historical and environmental risk information. RBF Consulting requested available historical Sanborn Fire Insurance Maps for the subject site from VISTA Information Solutions, Inc. At the time of this Assessment, no Sanborn Maps had been published for the subject site vicinity (refer to Appendix B, *Documentation*, of 15.10, *Phase I ESA*).

Historical County Planning Maps

Beginning in the 1930's, historical county planning maps were used by highway departments to disburse federal funding based on each county's road system. Some states just mapped roads, but many added cultural features such as farms and factories. These features were usually shown everywhere except within city limits. These maps are especially useful in conjunction with historical topographic maps. The topographical map can indicate the size, shape, and location of structures, while the historical county planning map can identify their use. RBF Consulting requested available historical county planning maps for the subject site from VISTA Information Solutions, Inc. At the time of this Assessment, no historical county planning maps had been published for the Project site vicinity.

California Department of Oil, Gas, and Geothermal Resources

RBF Consulting reviewed a Wildcat Map provided by the California Department of Oil, Gas, and Geothermal Resources (DOGGR). These maps indicate existing and historical oil and gas wells within the immediate vicinity of the subject site. Current well status for any well indicated on the Wildcat Maps should be confirmed at the appropriate Division of Oil and Gas District Office. According to the Wildcat Map W1-6, dated February 6, 1999, one (1) plugged and abandoned dry hole is identified adjacent to the western cliff within the RHA. This hole was dug in 1941 to a depth of 4,500 feet below ground surface (bgs). In addition, according to the *1995 Oil, Gas, and Geothermal Fields in California Map*, published by DOGGR, the subject site is situated in a sedimentary basin with oil, gas, or geothermal production.

Aerial Photographs

RBF Consulting reviewed available aerial photographs for the subject site and immediately adjacent areas to assist in the identification of development activities that have historically occurred on-site. Review of available historical aerial photographs dated 1952 through 1995 provided a chronological sequence of site

history (refer to Appendix 15.10, *Phase I ESA*). The aerial photographs were reviewed at Continental Aerial.

Based on review of the above referenced historical aerial photographs, the subject site appears to have consisted of an aquatic park and agricultural uses within the RHA. The UPVA has been utilized as a military installation and a small portion used for agricultural purposes.

Regulatory Sources

Governmental sources have been searched for sites within the subject site and within an approximate one-mile radius of the subject property boundaries. Federal sources, State sources and additional record searches have revealed the following:

Subject Site. Available public records were reviewed. The lists which were reviewed identified that two (2) listed regulatory sites are reported within the boundaries of the subject site. These sites consist of a former leaking underground storage tank (LUST) which have resulted in a subsurface release of petroleum products. Both sites impacted soils only and are considered closed by the local regulatory agency.

All Regulatory Listed Sites Within a One-Mile Radius of the Subject Site. No listed regulatory sites are located within a one-mile radius of the subject site.

Additional Environmental Record Searches

No additional environmental records searches were performed during the preparation of this Assessment.

Table 5.10-1, *Identified Sites Within the Subject Site*, lists sites identified in the regulatory database.

On-Site Observations

Methodology and Limiting Conditions. During the March 2, 1998 and September 6, 2000 site inspections, RBF Consulting performed a visual observation of readily accessible areas of the subject site and immediately adjoining properties. RBF Consulting encountered conditions which limited the performance of this Assessment. Access to the Point Vicente Bunker Battery #240 within the UPVA was restricted since the U.S. Coast Guard would not allow entry into the Bunker. Additionally, entrance to some structures within the RHA was restricted since these were blocked with plywood.

TABLE 5.10-1
IDENTIFIED SITES WITHIN THE SUBJECT SITE

(Were Identified in the Regulatory Database)

Vista Map ID#	Site Name/Address	Regulatory List	Site Status	Potential for an Environmental Condition on the Subject Site
1	Marineland 6600 Palos Verdes Drive South RPV, CA 90275	LUST	Case Closed. Soil Only.	Low - See Site Status
2	Chevron USA 6560 Palos Verdes Drive South RPV, CA 90275	LUST	Case Closed. Soil Only.	Low - See Site Status

Note: Map ID numbers match the site numbers indicated on the map of sites within one-mile contained within Appendix A, *VISTA Search*, of Appendix 15.10, *Phase I ESA*.

Potential For Environmental Condition Key:

Low Potential = Potential to create environmental condition on subject site is considered to be low for one or several factors including, but not limited to, the following:

- Direction of groundwater flow is away from the subject site (down gradient); remedial action is underway or completed at off-site location; distance from subject site is considered great enough to not allow the creation of a potential environmental condition; only soil was affected by the occurrence; and/ or reporting agency has determined no further action is necessary.

Moderate Potential = Potential to create environmental condition on subject site is considered to be moderate and further investigation may be necessary due to one or several factors including, but not limited to, the following:

- Occurrence reported but remedial status unknown; unable to confirm remedial action completed; proximity to subject site; groundwater flow is towards the subject site (up gradient).

High Potential = Potential to create environmental condition on subject site is considered to be high and further investigation necessary due to one or several factors including the following:

- Occurrence noted on-site and status if remedial action unknown; occurrence affected groundwater and is located up gradient from subject site.

Description of On-Site Structures and/or Uses

Resort Hotel Area

This area consists of numerous abandoned structures and facilities associated with the former Marineland Aquatic Park, constructed in 1953. The facilities included aquariums, water tanks, and animal handling/storage areas. Additional structures include theaters and restaurant/snack bars. A 300-foot hydraulic operated sky tower was centrally located within the park, but, has been removed in recent years and all that remains is the associated subsurface vault. The remainder of the parcel includes two paved asphalt parking areas, a former visitor information/service station located at the entrance to the Marineland facility, the former Marineland Inn Motel and vacant undeveloped land.

The RHA is currently utilized for several uses including property management offices, a reception hall (Catalina Room) and an agricultural field (majority of which is currently fallow). In addition, a sewage pump facility (currently inoperable) is located on the southern portion of the site. All of the existing buildings associated with the Marineland park were boarded up (with the exception of the Catalina Room and the maintenance warehouse), and access to the existing on-site structures was restricted during the March 2, 1998 site inspection.

Approximately 15.6 acres of undeveloped land were previously utilized for agriculture along the northeast boundary of the site. The agricultural fields were not under cultivation during the March 2, 1998 site investigation. Several storage sheds, equipment and trucks were observed stored on the north end of the agricultural field.

The former visitor information center/service station is located at the main entrance to this area along Palos Verdes Drive South. The building is currently abandoned and in disrepair. The interior of the building includes three (3) empty auto service bays.

Upper Point Vicente Area

Uses within this area are described as follows:

- Civic Center Park (including vacant land): This city-maintained park is located directly south of the City Hall structures and consists of manufactured turf areas and a tennis court. On-site, vacant land surrounds the City Hall structures and Civic Center Park to the north, south, east, and west. A subsurface bunker (Point Vicente Bunker Battery #240) and two (2) concrete gun emplacement pads are located west of the City Hall structures within the vacant land area. The Point Vicente Bunker is a buried, single concrete bunker which is not occupied. As illustrated on Exhibit 5.10-1, this bunker is

situated within the UPVA, but, also extends into the adjacent United States Coast Guard (USCG) site which is outside of the Project boundaries. The United States Coast Guard is currently utilizing one small room of the bunker for storage of communications equipment. This storage room is located within both the UPVA and the USCG Site. Access to the interior of the bunker was restricted during the March 2, 1998 and September 6, 2000 site inspections. Two large antennas associated with the communication system within the bunker are located atop the bunker site. In addition, a cellular tower is also located on the Coast Guard property.

- Agricultural Land: The southeastern corner of the UPVA is currently under agricultural production.

- Corporate Yard (former NIKE missile site): The City Corporate Yard is located south of the city park and City Hall structures. The corporate yard consists of a paved area which is currently utilized as a storage area for construction and maintenance materials. Construction materials observed consist of wood, piping, sandbags, dumpsters, concrete piping and landscape debris piles. In addition, a building historically used by Cox Cable is located at the entrance to the corporate yard. Two abandoned NIKE missile silos are located beneath the corporate yard which consist of two large concrete underground vaults, two hydraulic lift elevators and two sound proof control rooms.

Asbestos Containing Material

Asbestos is a strong, incombustible, and corrosion resistant material which was used in many commercial products since prior to the 1940's and up until the early 1970's. If inhaled, asbestos fibers can result in serious health problems. Asbestos Containing Materials (ACMs) are building materials containing more than one percent (1%) asbestos (some state and regional regulators impose a one tenth of one percent (0.1%) threshold).

Resort Hotel Area

Several abandoned structures, in which access was restricted, were noted during the site inspection. Due to the age of the on-site structures, asbestos containing materials may be present.

Upper Point Vicente Area

The structural components of the NIKE silos and Point Vicente Bunker may potentially contain asbestos containing material (ACM), lead-based paints and PCBs.

A March 25, 1996 Federal Facility PA Review identified the Point Vicente Bunker as potentially containing asbestos containing material within the structural components of the facility.

Lead-Based Paints

The U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead in 1978. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or pealing), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants.

Resort Hotel Area

Due to the age of the structures located on the site, the presence of lead-based paint materials is considered likely.

Upper Point Vicente Area

Due to the age of the structures located on the site including the bunker and silos, the presence of lead-based paint materials is considered likely.

Chemical Storage Tanks

During the March 2, 1998 and September 6, 2000 site inspections, the subject site was inspected for fill pipes, vent pipes, areas of abnormal or heavy staining, manways, manholes, access covers, concrete pads not homogenous with surrounding surfaces, concrete build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps.

Resort Hotel Area

No evidence of chemical storage tanks was observed during the March 2, 1998 site inspection. However, in one of the out service bays of the former service station, a concrete sump with a metal cover containing an unknown dark liquid was observed during the site inspection.

Upper Point Vicente Area

Mr. Jim Heinz, Facility Engineer with the United States Coast Guard at San Pedro, indicated that two leaking underground storage tanks (LUSTs) consisting of Number

1 stove oil adjacent to the Point Vicente Bunker northern entrance were removed in approximately 1996. Mr. Heinz also indicated that remedial activities in the form of soil removal was performed on the two underground storage tank sites. The two LUSTs were removed and remedial action was completed. However, according to the Federal Facility PA Review for the Point Vicente Bunker provided by Mr. Heinz, two additional underground storage tanks are suspected to be located adjacent to the bunker. Ventilation pipes protruding from the ground within the USCG site has lead to speculation that two USTs may be associated with the piping. The location of the potential USTs is unknown. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties.

Chemical Storage Areas

Resort Hotel Area

A storage room was located adjacent to one of the former restaurant areas. According to the previous Phase I ESA conducted for the Long Point parcel, small quantities of maintenance supplies, including paint and paint thinners, were observed on wooden shelves. No stains or leaks were observed surrounding the base of the containers. Visual inspection revealed that the paint was fairly old, as it had completely dried in the containers.

A steel-constructed warehouse and helicopter landing pad (painted for movie shoots) is located near the former main entrance to Marineland. The building was previously used for equipment maintenance and graphics production for the operating Marineland park. The warehouse interior is currently used to store equipment and vehicles associated with the maintenance and use of the Marineland park for filming. The building includes a conference room and offices. Dumpsters containing landscaping debris, construction materials, and large spools of cable were observed adjacent to the helicopter pad. No environmental condition associated with the stockpiling of these materials was noted. The previous Phase I ESA conducted for the Marineland facility indicated the presence of small quantities of cleaners, paints and thinners placed on shelves. No leaking or staining was observed on the concrete floor surrounding the materials.

Upper Point Vicente Area

No significant environmental condition associated with the stockpiling of material such as yard waste and other non-hazardous materials was noted.

RBF was unable to gain access to the Point Vicente Bunker located southwest of City Hall. However, a concrete vault adjacent to the north entrance of the bunker was observed to contain wood and paint debris. No staining was noted.

Spills

Resort Hotel Area

No evidence of a spill was observed on this area during the March 2, 1998 site inspection. According to Mr. Jim York of York Long Point Associates, liquid consisting of unknown contents and quantities have been observed within the sealed base vault of the former 300-foot sky tower prior to being sealed. Also, as noted above, a concrete sump with a metal cover located in one of the out service bays of the former service station contained an unknown dark liquid.

Upper Point Vicente Area

Evidence of a possible spill was observed during the September 6, 2000 site inspection. A 100 square foot area of distressed vegetation[1] was observed to the north of the City Hall structures near a concrete slab partially covered with ice plant.

An unknown liquid (possibly rain water) was observed pooling in the lower portion of the concrete floor inside the NIKE facilities.

A previous inspection in 1994, by others, of the interior of the Point Vicente Bunker revealed no visible signs of spills or releases.

Polychlorinated Biphenyls (PCBs)

Resort Hotel Area

No evidence of PCB's was observed during the March 2, 1998 site inspection.

Upper Point Vicente Area

The hydraulic systems associated with the missile elevators in the two NIKE silos are known to contain PCBs. An unknown liquid (possibly rain water) was observed pooling in the lower portion of the concrete floor inside the NIKE facilities.

[1] It should be noted that distressed or dying vegetation is an indicator of a potentially recognizable environmental condition.

Utilities

Resort Hotel Area

Overhead electrical lines were observed within the parking areas located on the east and west portion of this area during the March 2, 1998 site inspection. A concrete mounted transformer was noted adjacent to the southeast corner of the west parking area. A second concrete mounted transformer was noted immediately adjacent to the former sky tower. Piping associated with the sprinkler and fire hydrant system was noted throughout this area. In addition, a sewage pump facility and associated piping, currently inoperable, was observed near the southern border of this area. No environmental condition associated with these utilities was observed.

Upper Point Vicente Area

A cellular tower and concrete mounted transformer was observed adjacent to the northern most City Hall administration building. An electrical vault was noted in the city park area adjacent to the tennis court. A sewage "manhole" was observed in the vacant southern portion of the site within the open space area. Above ground electrical lines containing two pole mounted transformers traverse the northern portion of this area. No leaking or staining associated with the transformers was observed. Air vents and electrical cables (including abandoned electric cables) and abandoned piping associated with the Point Vicente Bunker were observed on the USCG site during the site inspection. As noted previously in this assessment, the piping extending from the ground surrounding the bunker may potentially be associated with two underground storage tanks. Above ground irrigation pipes were noted throughout the agricultural portion of this area. No environmental conditions associated with the above mentioned on-site utilities, except for the piping associated with the Point Vicente Bunker, were observed during the March 2, 1998 and September 6, 2000 site inspection.

Off-Site Observations

An adjoining property is considered any real property or properties that the border of which is contiguous or partially contiguous with that of the subject site, or that would be contiguous or partially contiguous with that of the subject site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 miles of the subject site's border. Visual observations of the publicly accessible portions of adjoining properties were conducted on March 2, 1998 and September 6, 2000 as part of this Assessment and are described below.

Utilities

Typical utilities were observed along Palos Verdes Drive South and Hawthorne Boulevard during the March 2, 1998 and September 6, 2000 site inspections.

Tanks

A Unocal Service Station was observed on the east side of Palos Verdes Drive South, east of Subregion 1. No significant environmental condition associated with the service station was noted.

Hazardous Materials

During a preliminary observation of accessible adjoining properties on March 2, 1998 and September 6, 2000, no visible or physical evidence was observed to suggest that a surface release of petroleum based material has recently occurred. No unusual or suspicious materials handling or storage practices were observed with respect to adjacent properties with one exception: the adjacent Point Vicente Interpretive Center Site (PVIC).

RBF Consulting reviewed information regarding the discovery of lead contaminated soil from the Point Vicente Interpretive Center (PVIC) site. Historical records indicate that a portion of the site was a former rifle and small arms range which was used from the 1940's to the 1970's. Soil on the site contains lead from the rifle range activities. From 1983 to 1984, as part of the development of the park property, the soil mound used for the range was graded. Grading appears to have stayed within the boundaries of the Point Vicente Interpretive Center site. In July 1999, as part of a planned expansion, soil from this site was excavated and transported offsite. Subsequent sampling of soil transported to San Pedro for fill material indicated that lead concentrations had the potential to exceed regulated levels. That soil was transported back to the PVIC site. Soil was also placed in Chandlers Landfill, but subsequently removed to a proper disposal facility.

GOLF COURSE SAFETY

A Peer Review and Safety Analysis for the Long Point Resort Golf Course and Practice Facility was conducted by Kipp Schulties Golf Design, Inc., (September 15, 2000). The analysis was conducted to confirm that the layout, routing and grading would not be in conflict with safety as it relates to residential units, adjacent holes, streets, and pedestrian traffic. The following is an outline of the standards and criteria utilized for the analysis. The actual review, conclusions and recommendations are included in the impact analysis section which follows.

There are no laws which govern the profession of golf course architecture. However, several non-written standards and recommendations have been developed which architects will follow when routing and designing a course. One of these standards is the minimum width for golf hole corridors. These standards, more aptly called recommendations, are what most golf course architects consider

to be their guidelines. They are not legally binding, however, they are used to form the basis for designs. These are the guidelines which are used throughout this analysis.

Several organizations were contacted in an attempt to locate any written documentation for the aforementioned guidelines. These organizations included the American Society of Golf Course Architects (ASGCA), the National Golf Foundation (NGF), the Urban Land Institute (ULI), and the United States Golf Association (USGA). Only the ULI has written recommendations on corridor width included in a book that they co-authored with golf course architect Desmond Muirhead. This information is provided in the Appendix to Appendix 15.11, *Golf Safety Study.* The information provided in these excerpts is highly informative and has been considered for purposes of this analysis. The USGA provided a chart on Accuracy Patterns, has also been included in the Appendix, however, nothing on corridor widths.

Golf Course Routing

A standard method for golf hole corridor widths was developed during the 1960's and 1970's. Many architects still use these standards today. These standards make specific recommendations for the areas around tees, fairway landing areas and greens. These widths are as follows:

Tees. 150 feet for minimal corridor width (75 feet from the center of the tee to the adjacent property boundary or edge of adjacent fairway). This is measured from the center of the back tee.

Fairway Landing Areas. 300 feet for minimal corridor widths (150 feet from the center of the landing area to the adjacent property or to interface with the widths of adjacent fairways).

Greens. 300 feet for minimal corridor width (150 feet from the center of the green to the adjacent property boundary or to interface with the widths of adjacent golf hole corridors).

It should be noted that the edge of the corridor width expands on a straight-line tangent from the 150-foot wide width at the tees to the 300-foot width at fairway landing area.

The minimal distance is more critical as the hole relates to the property boundary than as it relates to an adjacent hole. Therefore, when adequate space is not available, corridor widths on adjacent fairways tend to overlap rather than each fairway being pushed toward the property line. This may make the corridor width of one hole less than the 150 feet from the center of the fairway. While this may create more of a safety concern for golfers on the course, it has no impact on the safety of those outside the perimeter of the course.

It is typically the preference of both the architect and developer that errant golf balls remain on the golf course property rather than that they go off the property. To compensate for the reduction in width between adjacent holes, the architect typically designs more mounding between the holes that may be covered in landscaping to "knock down" errant shots from going into opposite fairways.

The accepted standard lengths for each par are as follows:[2]

- Par 3's - 235 yards or less
- Par 4's - 270 yards to 470 yards
- Par 5's - 471 yards or more (not exceeding approximately 630 yards)

Par 4's and Par 5's typically have the landing area at a distance of 800 feet off the center of the back tee. The second landing area on par 5's is typically 600 feet from the center of the first landing.

These standards of corridor width are still considered acceptable and form the basis for this peer review and safety analysis.

EMERGENCY RESPONSE PLANS

General Plan (Civil Defense and Disaster)

The City of Rancho Palos Verdes, together with other South Bay member cities, make up the Area "G" County Civil Defense and Disaster Planning Board Region I of the State of California. This organization provides cities with disaster planning assistance, public information, and coordination of action programs and mutual aid agreements. The Emergency Operating Plan (EOP) is a document which sets forth the functions and resources of the City during a disaster. In addition, a plan for Standard Operating Procedures (SOP) identifies specific actions that are necessary when a disaster occurs. Some of the components which are included in the SOP are listed below:

- Emergency communications,
- Disaster routes,
- Medical facility locations,
- Emergency Operation Center (location and staffing), and
- Emergency utilization of resources.

[2] The ULI has, in recent years, increased their recommended width for golf hole corridors. This is due to the tightening relationship between golf course and residential areas and because golfers are now hitting shots much further than they have in the past – mainly due to new technology in golf equipment (see the Appendix to Appendix 15.11, Golf Safety Study). These new standards increase the corridor widths around tees from 150 feet to a minimum of 200 feet, around fairway landing areas from 300 feet to at least 350 feet, and around greens from 300 feet to a minimum of 350 feet.

Figure 39, *Disaster Routes*, of the General Plan, depicts the various evacuation routes throughout the City. Two streets located adjacent to the Project area are indicated as disaster routes: Palos Verdes Drive South and Hawthorne Boulevard.

SEMS Multihazard Functional Plan

In 1997, the City of Rancho Palos Verdes adopted the Emergency Operating Plan: SEMS Multihazard Functional Plan (MHFP). The MHFP addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The operational concepts reflected in this plan focus on potential large scale disasters which can generate unique situations requiring unusual emergency responses.

According to Attachment 2, Threat Summary 3, *Map of Evacuation Routes*, of the MHFP, there are no areas depicted as evacuation routes in the immediate Project area. The area nearest to the Project site depicted as an Evacuation Route is a segment of Palos Verdes Drive West located north of the Hawthorne Boulevard/Palos Verdes Drive South intersection.

Additionally, it should be noted that the City is a member of the California Master Mutual Aid Agreement, which provides for disaster assistance from other California cities after a major disaster has been declared by the Governor.

Flood Control. In Rancho Palos Verdes, flood control is normally the responsibility of two County agencies: the Road Department and the Flood Control District. In emergency situations, such as flash flooding and mud flow, each of these agencies would carry out respective emergency operations until the immediate danger has passed.

According to Attachment 1, Threat Summary 3, *Flood Hazard Map*, of the MHFP, there are no areas of potential roadway flooding located in the immediate Project area. The area nearest to the Project site depicted as Potential Roadway Flooding is a segment of Palos Verdes Drive West located north of the Hawthorne Boulevard/Palos Verdes Drive South intersection.

IMPACTS

Significance Criteria

Significance thresholds in this Section are based on the CEQA Appendix G Environmental Checklist Form as indicated below.

CEQA Appendix G Thresholds

A potentially significant impact health would occur if the Project caused one or more of the following to occur:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (refer to Impact Statement No. 5.10-1);

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Emit hazardous emissions or handle hazardous or acutely hazardous, substances, or waste within one-quarter mile of an existing or proposed school (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (refer to Section 10.0, *Effects Found Not To Be Significant*);

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project resulted in a safety hazard for people residing or working in the project area (refer to Section 10.0, *Effects Found Not To Be Significant*);

- For a project within the vicinity of a private airstrip, if the project resulted in a safety hazard for people residing or working in the project area (refer to Section 10.0, *Effects Found Not To Be Significant*);

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (refer to Impact Statement No. 5.10-2);

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands (refer to Section 5.11, *Public Services and Utilities*); and

- If the project has environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly (refer to Impact Statement No. 5.10-3).

Potential impacts associated with the proposed Project have been identified. The impacts are categorized according to topic then numbered consecutively under

each category. Mitigation measures at the end of this Section directly correspond to the numbered impact statements below.

HAZARDOUS MATERIALS

5.10-1 *Implementation of the proposed Project may create a significant hazard to the public and the environment through the disposal of hazardous materials. Implementation of the specified mitigation would reduce impacts to a less than significant level.*

Resort Hotel Area

Site Conditions. The following areas of concern were documented during the site inspections on March 2, 1998 and September 6, 2000, and are illustrated on Exhibit 5.10-1, *Areas of Concern*.

- A sump within the concrete floor of the former service station was noted containing an unidentified liquid;
- The sealed subsurface vault associated with the former 300-foot sky tower has been reported to contain an undetermined quantity of an unknown liquid with an oily sheen (possibly as a result of the former operation of the hydraulic system associated with the sky tower); and
- Numerous abandoned structures associated with the former Marineland Aquatic Park were noted. These structures may potentially contain asbestos containing material (ACM) and lead-based paints.

Historical Use Information. Review of available environmental documentation and interviews indicate that previous uses within the RHA may have resulted in potential adverse environmental conditions. Specific uses include some of the former Marineland structures and the agricultural operations.

Based upon the site inspection, review of available historical aerial photographs, and interviews, portions of the RHA were historically used for agricultural purposes for several decades. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned may have been used throughout the subject site. It should be noted that the historical use of agricultural pesticides may have resulted in pesticide residues which persist in the soil at concentrations that are considered to be hazardous according to established Federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil present potential health concerns. While there is no requirement that agricultural soil be tested prior to development, many developers and lenders throughout the United States are requiring that sites

proposed for development undergo an evaluation of environmental conditions. Thus, with this information disclosed, it is required that the Applicant conduct additional environmental review (i.e., Phase II) to determine the absence or presence of pesticide residues, and if present, to determine how the soils would be handled (i.e., Risk Assessment).

Impacts associated with the site conditions and the historical use of the RHA are considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified mitigation measures.

Upper Point Vicente Area

Site Conditions. The following areas of concern were documented during the site inspections on March 2, 1998 and September 6, 2000, and are illustrated on Exhibit 5.10-1, *Areas of Concern*:

- Piping, potentially associated with two suspected underground storage tanks (USTs), was observed adjacent to the Point Vicente Bunker site within the USCG site. If present , it is unknown whether the UST's are located within the UPVA, within the USCG site, or within both properties.

- A 100 square foot area of stressed vegetation near a concrete slab was observed to the north of the City Hall structures, halfway down the adjacent slope. The purpose/use of the concrete slab which was breaking apart could not be determined. One pipe partially extending out of the concrete slab was observed near the center of the slab. No staining of the observable portions of the slab was noted.

- A pipe and wood structure was observed to the west of the concrete slab at the end of an abandoned asphalt roadway in the northern portion of the UPVA. The purpose/use of these noted objects could not be determined. It should be noted that no staining in the area of these objects was noted.

- The structural components of the NIKE silos and Point Vicente Bunker may potentially contain asbestos containing material (ACM), lead-based paints and PCBs.

Historical Use(s) Information. Review of available environmental documentation and interviews indicate that previous uses within the UPVA may have resulted in potential adverse environmental conditions. Specific uses include the military use and the agricultural operations.

Historical operations within the UPVA are not well documented. It is believed that the types of materials used and types of wastes generated from past operations

would include pesticides, polychlorinated bipheyls (PCBs), petroleum products, organic solvents, explosive ordnance and NIKE missile propellants. Surveys conducted by the military indicated that the risk associated with explosive ordnance and missile propellants is low as these materials have been removed from the area. Pesticides are associated with agricultural uses (refer to the discussion below). PCBs could be found in the transformers and the hydraulic lifts within the NIKE facilities. Petroleum products would have been stored in the known and suspected underground storage tanks associated with Battery #240. Organic solvents would include degreasing solvents, paint thinners/paint removers.

Based upon the site inspection, review of available historical aerial photographs, and interviews, portions of the UPVA are/were historically used for agricultural purposes for several decades. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned may have been used throughout the subject site. Refer to the discussion above regarding the historical use of agricultural pesticides.

Impacts associated with the site conditions and historical uses on the UPVA are considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified mitigation measures.

Public Records

Available public records were reviewed by VISTA Information Solutions, Inc. on August 25, 2000. The purpose of this research was to verify if there are sites located within the subject site boundaries or within a 1-mile radius of the subject site, which have been reported as contaminated or that generate hazardous materials. The lists which were reviewed identified that two (2) sites are reported within the boundaries of the subject site and no listed regulatory sites are within a one-mile radius of the subject site. None of the identified sites appear to be a potential environmental concern with regards to the subject site due to their status. Therefore, a significant impact would not occur in this regard.

Other Potential Sources of Hazardous Material

The presence of hazardous materials on the subject site that may have been generated from adjacent properties was not visually or physically evident.

As previously noted, lead contaminated soil was discovered on the Point Vicente Interpretive Center site. Sampling of this soil indicated that lead concentrations had the potential to exceed regulated levels. Based on review of existing information and historical aerial photographs it does not appear that operations on the PVIC site would have impacted the UPVA. Therefore, a significant impact is not anticipated in this regard.

GOLF COURSE SAFETY

5.10-2 *Development of the proposed golf course and practice facility may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*

The proposed Long Point Resort Golf Course was routed using the standard method for golf hole corridor widths identified in the *Existing Conditions* discussion. The Golf Course Safety Analysis was conducted to confirm that the layout, routing and grading of the proposed golf course and practice facility would not create safety concerns with respect to residential units, adjacent holes, streets, and pedestrian traffic. A hole by hole analysis was conducted through which it was determined that in general, the golf course as designed would work well with respect to both safety and playability based on the aforementioned standards (refer to Appendix 15.11, *Golf Course Peer Review and Safety Analysis*).[3] Based on the analysis, it was concluded that each hole within the Long Point Resort Golf Course is consistent

[3] Long Point Resort Golf Course Peer Review and Safety Analysis, Kipp Schulties Golf Design, Inc., September 15, 2000, page 12.

with the accepted standard lengths for each par.[4] The analysis also concludes that the proposed golf course would contain areas where adjacent fairways, tees, and greens would infringe on each other (i.e., less than 200 feet from center to center).[5] Based on these findings, the analysis identified recommendations for mitigating the safety adjacent to each golf play area and to surrounding uses (refer to Appendix 15.11). The following are the recommendations for each golf course hole:

Hole # 1

Additional support (i.e., higher mounding) along the parking area with vegetation provided would better contain errant shots from hitting parked cars. The back tee should be moved slightly to the left for two reasons: First, there is very little containment on the grading plan to collect errant shots from the elevated sixth hole which may roll down toward the first tee area. Secondly, the more that the tee shot can be angled towards the left side property boundary (aiming the tee shot back to the center of the landing area), the less likely that players would hit shots into the parking area left of the hole. This may help avoid conflicts with both vehicles and pedestrians.

Hole # 2

A concern exists regarding errant shots landing on Palos Verdes Drive South to the left of the hole. To improve this situation, the back two tee complexes should be moved more to the left and down the slope. This would create more of an angle into the containing slope on the right and better direct shots away from the road. However, while still good, the golf course would have to sacrifice views from the tees.

Additionally, because the hole is so far downhill, many longer hitters may be able to drive the ball over the bunker on the inside left of the landing area. The sand bunker should be moved more toward the green. This way it would serve as a containment or saving bunker rather than an obstacle for longer hitters to play over with their tee shots.

Hole # 3

It is recommended that this hole be a Par 4. The green should be located beyond the shallow draw near what is now the proposed second landing area. As the plan is proposed, the second landing area is 85 feet from the property boundary to the left and 100 feet the centerline of the 4th hole. This is unacceptable based on industry standards for golf hole corridor widths. The 3rd fairway does not address the issue of the blind shot. If there were no other holes or property boundaries on

[4] Ibid., Page 2.

[5] Ibid., Page 3.

either side of this hole, the blind shot would not be a concern. However, that is not the case for the proposed golf course design.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary. This is considered one of the most useful landforms on the course.

The landform to the right of the first landing should be retained, however, the fairway area shall be cut by five to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway would be at 355 feet while the sides (rough areas) would be five to ten feet higher. This would help remove the "blind" shot in the process.

In summary, it is recommended that the first landing area be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

There isn't enough room to get the third hole's second landing area and green complex in the same small area as the 4th tee complex. This is due to the property boundary left of the third hole and the steep slope to the left of the 4th tee complex. As it is shown, the second landing area of the third hole is less than 100 feet from the property boundary (the center line gets as close as 70 feet from the property boundary just short of this landing area). Additionally, there is a pedestrian trail (and cart path) proposed between the property boundary and the third hole all within this 100 foot area separating the second landing area and the property boundary. There is a significant potential for conflict with errant shots landing on or near the pedestrian trail in this area.

To avoid conflicts with shots going into the pedestrian area or off the property, the second landing area would need to be moved to the right approximately 80 to 100 feet (at the very least). However, by moving this over to the right, the second landing area would then be in the direct flight path of shots off the fourth tee – a very dangerous situation for players on the third hole.

Two possible options are recommended regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4

The design of this hole provides containment in the fairway by having the outside edge of the dogleg (left edge) much higher than the landing area. This would help keep shots away from the fifth tee location.

There is additional room to move the fifth tee location to the South by 35 to 40 feet if a retaining wall is used similar to that around the fourth tees. By doing this, the landing area on the fourth could move over by 30 feet or so and would better the relationship with the third hole's second landing area. Signage on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee is also recommended.

Additionally, as with the third hole, lowering the overall profile of the entire third and fourth fairways for better vision with each shot is recommended.

Hole # 5

This hole should be shortened slightly by moving the green back towards the tee. As an option, dense vegetation of medium height should be added to screen against long shots landing near the pedestrian trails. For playability, two or three more bunkers should be added down the slope to the right of the green. The majority of players would slice the ball (hit it to the right). If the greenside bunker is missed, there is nothing to prevent golf balls from going all the way down the slope. The additional bunkers may help the speed of play and also create a complex of greens as seen from the upper tees. The back tee should be moved to the South as discussed on the previous hole.

Hole # 6

A bunker or strong shaping (grass hollows) should be provided between the sixth green and first tee. Errant shots to the right of the green have nothing to contain them from rolling down toward the first tee complex. Also, the back tee on the first hole should be moved slightly left (closer to the property boundary).

Hole # 7

Additional support (i.e., higher mounding) should be provided on the back left if possible. Also, The cart path should be moved behind the back tee and down the left-hand side. The cart path in front of these tees would take away from the visual aesthetic beauty of this hole from both the tees and Clubhouse area.

Hole # 8

The landform to the right of the eighth tees should be landscaped to protect players from shots off the ninth tee. The ninth tee shot is from a high elevation causing the ball to carry much father than if play were to a landing area that was level with the tees. These tees (eighth) would be in play from longer hitters off the ninth tees.

Hole # 9

Vegetation should be added to the right area support, just past the landing area to create separation and protect players on the eighth tees from long shots off the ninth. Taller (15 –20 feet), denser vegetation in this location would have no effect on views from the surrounding hillsides. Walking trails should be screened with small to medium height vegetation near the landing to avoid any potential problems from shots pulled to the left.

Unless mitigated, safety impacts associated with the proposed golf course would be considered significant. Mitigation requiring that each of the recommendations identified above be implemented would reduce impacts in this regard to a less than significant level. Mitigation requiring that the golf course design be subject to final review and approval by the City would further reduce the potential impacts in this regard to a less than significant level.

Practice Facility

The Golf Safety Study also concluded the following regarding the proposed practice facility (driving range):

- The range runs directly to the east from a tee at elevation 240 (approximately). Golfers using the range would hit shots uphill (east) to a number of target greens evenly spaced throughout the range. The range is shorter than normal at only 700 feet from the front of the tee to the back of the range. However, because of the vertical rise from tee to landing area, the majority of golf balls would never reach the opposite end. If they do, the native vegetation and continued rise in vertical elevation would certainly knock them down from having any potential of reaching Hawthorne Boulevard.

- The range is graded to contain shots. The architect generally “cut” the range into the hillside, which created the natural containment north and south. The south side is well framed by the existing hillside. If this ground where this range was planned was level, the greatest concern would be for the City buildings to the south as the majority of golfers slice the ball (hit it to the right/south). However, because there is nearly 120 feet of vertical elevation, it is extremely unlikely that any one could hit a ball that far and right/south.

It should be noted that concern has been raised regarding the safety of the residential units situated north of the range, specifically, regarding golf balls entering their property. By “cutting” in the range, the architect has naturally created a berm or landform along the north/left edge of the driving range. This light berming would help contain errant shots. If there were no homes north of the range, the architect would simply push this berm out to the north, raise it 10 to 15 feet, and then plant

vegetation on top of the berm. This would collect nearly every errant shot. However, in the case of this particular driving range, any kind of tall berm would be unacceptable as it would potentially obstruct views from these adjacent residences.

A low area running along the northern boundary of the UPVA exists between the proposed range and the residential units. This low area is a fire break that sits in a small valley with the floor of the residential units approximately 10 feet above it (as one would look straight south from each unit). This low, or draw as it is sometimes called, would go a long way to insuring that no golf balls reach the residential units (particularly if the area between the edge of the range and the property boundary is revegetated with low growing dense materials). Any ball that does happen to get over the berm on the north edge of the range would not get much further once it lands in this area.

There is one other beneficial buffer, that being elevation. The lowest elevation of the residential units is at least 20 to 25 feet higher than the driving range tee. Hitting uphill would make for shorter shots off the tee creating less of a likelihood that shots would reach residential home sites.

The driving range tees are laid out such that they play away from the residential units on the north as much possible. With the tee on the left/north in the shape of an arc (away from the left side), it would be nearly impossible for anyone from this tee to hit a shot towards the residential units. The only real concern, if there is one, would be from players on the right side tee that can hit the ball a long way and pull it or hook it at the same time.

The corridor width of the driving range is adequate as measured from the edge of the range to the property boundaries. There is 150 feet from the left edge of the range to the residential units at its closest point. From the center of the range to the property boundary is nearly 300 feet (the golf course uses 150 feet from the center of the fairway to the residential property line).

According to the Golf Safety Study, there is no alternative way that the range at this location could be designed given all of the constraints.[6] The range plays into a steep hillside, is graded to collect balls toward the center and there is adequate buffer distance between the north edge of the range and the property boundary.

However, the Study has identified two alternative modifications to the range's design to improve it's relationship with the residential home sites:

- To excavate out the low area between the range and property boundary. Decrease the range's elevation by between 10 and 15 feet and then revegetate it with native materials. Although considered a

[6] Ibid., page 12.

small benefit to aid in the containment of shots, it would be considered an improvement on the current design; or

- Lower the elevation of the driving range tee to approximately 230 feet (is considered more effective than the previous modification). The increased difference in elevation between the tee and the residential home sites would decrease the chances of shots reaching the property boundary.

Safety impacts associated with the practice facility would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of the specified measures requiring incorporation of the design modifications identified in the Golf Safety Study.

EMERGENCY RESPONSE PLANS

5.10-3 *Implementation of the proposed Project may impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan for the area. Analysis has concluded that compliance with the City Development Code would result in a less than significant impact.*

General Plan (Civil Defense and Disaster)

As previously noted, two streets located adjacent to the Project area are indicated as disaster routes: Palos Verdes Drive South and Hawthorne Boulevard. Modifications to Hawthorne Boulevard are not proposed as part of the proposed Project. However, Project implementation would involve modifications to Palos Verdes Drive South including the following:

- Access to the resort hotel is proposed via Palos Verdes Drive South at the existing access to the former Marineland project, opposite Crestmont Lane. A 4-lane divided entry is proposed to allow right and left turns onto Palos Verdes Drive South and allow right and left turns into the resort hotel.

- Access to the practice facility is proposed off of Palos Verdes Drive West adjacent to an existing emergency access roadway to the Villa Capri townhouse development.

- Access to the golf maintenance facility is proposed from Palos Verdes Drive South via the alignment of an existing unpaved dirt road.

- One golf cart tunnel crossing is proposed under Palos Verdes Drive South which would connect the RHA with UPVA by a tunnel system under Palos Verdes Drive South.

It is anticipated that traffic flow would be temporarily impacted during construction of these proposed improvements. However, Project compliance with City Development Code 12.04.040, Section 128, would be required. This Section of the Code specifically states the following with respect to street construction:

> *"Any-person engaged in performing work regulated by this Chapter which interferes with or endangers the safe movement of traffic shall have the work safeguarded by adequate warning signs, barricades, lights and devices. He shall be responsible for placing and maintaining adequate warning signs, lights, barricades and devices during all periods of his activity in order to promote the safe movement of traffic including but not limited to periods of twilight, fog and/or rain. All warning signs, barriers, barricades, flags, and other devices shall comply with or exceed the standards required in the Vehicle Code. Traffic controls throughout permit construction shall conform to the current State of California "Manual of Warning Signs, Lights and Devices for Use in Performance of Work Upon Highways."*

Impacts associated with the Emergency Response Plan would be considered as less than significant after compliance with the Development Code.

Further, it should be noted that the proposed Project is limiting development and improvements to the UPVA and RHA. The proposed access improvements are being designed to facilitate adequate traffic movement for peak hour conditions which would also ensure adequate emergency condition vehicular movement from the Hotel site and along the adjacent roadway network. Therefore, it is anticipated that the Project would not have a significant impact relative to the implementation or interference with emergency response/evacuation plans.

SEMS Multihazard Functional Plan

According to Attachment 2, Threat Summary 3, *Map of Evacuation Routes*, of the MHFP, there are no areas depicted as evacuation routes in the immediate Project area. Therefore, a significant impact would not occur in this regard.

FIRE ANTS

5.10-4 *Development of the proposed golf course and practice facility may introduce fire ants which may cause significant safety affects on human beings. Analysis has concluded that with mitigation, impacts would be reduced to less than significant levels.*

The introduction of non-native wildlife species, especially the fire ant, is of particular concern to the development of the UPVA and RHA. Fire ants (Solenopsis sp.) occur from North Carolina south to northern Florida, along the Gulf Coast and west to California. Colonies in landscape areas may be observed as mounds or more

commonly may be constructed under the cover of stones, boards, and other objects or at the base of plants. Ants could be imported to the UPVA, RHA, and adjacent areas by infected nursery stock. Golf courses are especially attractive to fire ants due to the ideal conditions that exist there: irrigation water; fertile soil, open sunny areas, and electrical wires and their associated magnetic fields or impulses. Fire ants have a severe bite and sting and will attack anything that disturbs their nest. Unless mitigated, the potential infestation of the Project site by fire ants is considered potentially significant due to the resulting potentially serious medical threat to visitors of public and private lands on and adjacent to the Project site. Implementation of the specified mitigation, including the inspection of all nursery stock/other items and development of a management program, would reduce impacts in this regard to a less than significant impact.

CUMULATIVE IMPACTS

5.10-5 *The proposed Long Point Resort, in combination with other cumulative projects, may increase exposure of the public to hazardous substances, or interfere with emergency response plans.*

Compliance with local, State and Federal regulations would ensure that contamination or exposure to hazardous substances is avoided or controlled to minimize the risk to the public on a case-by-case basis as the cumulative projects are constructed. Review of the development proposals relative to emergency response plans would be conducted by the City and mitigation required as necessary on a project-by-project basis.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements in the Impact subsection.

HAZARDOUS MATERIALS

5.10-1a Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the concrete sump located in the former service station in the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1b Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the liquid contained within the vault of the former sky tower on the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1c Prior to Demolition Permit issuance, site specific investigations shall be conducted to determine the contents of the interior of all structures on the RHA. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to renovation/demolition activities.

5.10-1d If during demolition any of the structures, paint is separated from the building materials (e.g., chemically or physically), the paint waste shall be evaluated independently from the building material to determine its proper management. According to the Department of Substances Control, if paint is not removed from the building material during demolition (and is not chipping or peeling), the material could be disposed of as construction debris (a non-hazardous waste). The landfill operator shall be contacted in advance to determine any specific requirements they may have regarding the disposal of lead-based paint materials.

5.10-1e Prior to the commencement of any remedial work and consistent with the National Emission Standards for Hazardous Air Pollutants (NESHAP), building owners shall conduct an asbestos survey to determine the presence of Asbestos Containing Materials (ACMs). Prior to Demolition Permit issuance, areas shall be sampled as part of an asbestos survey.

5.10-1f Any demolition of the existing building shall comply with State law, which requires a contractor, where there is asbestos-related work involving 100 square feet or more of ACMs, to be certified and that certain procedures regarding the removal of asbestos be followed.

5.10-1g Soil sampling of the agricultural portion of the RHA shall be conducted to determine the presence or absence of banned agricultural pesticides, prior to Grading Permit issuance.

5.10-1h Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the level of potential contamination associated with the historic use of the UPVA. The focus of the investigation shall include, but not be limited, to the following:

- Determine the actual absence or presence of the suspected underground storage tanks located near the Point Vicente Bunker. If determined present within the UPVA, soil sampling and/or testing to determine the characteristics and extent of potential contaminants shall be performed. Upon completion of soil testing and/or sampling, a Risk Assessment shall be prepared to determine the appropriate measures for remediation of the tank sites; and

- The 100-square foot area of distressed vegetation located adjacent to the abandoned concrete slab in the northern portion of the UPVA shall be examined to determine the potential for a release of hazardous materials. In addition, a subsurface investigation shall be conducted to determine if any other structures or substances are located below the concrete slab. Any stained soil shall be tested to determine the absence or presence of hazardous materials.

5.10-1i Prior to Demolition Permit issuance, the Project Applicant shall coordinate with the appropriate authorities from the United States Department of Interior, National Park Service regarding any proposed modifications to the Nike missile silos.

5.10-1j Prior to Demolition Permit issuance or modification to the Point Vicente Bunker, a site specific investigation to determine the contents of the interior shall be conducted. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to modification/demolition activities.

5.10-1k Prior to Grading Permit issuance, soil sampling of the agricultural portion of the Upper Point Vicente Area shall be conducted to determine the presence or absence of banned agricultural pesticides.

GOLF SAFETY

5.10-2a The proposed golf course design shall be modified prior to Development Plan approval, to the satisfaction of the Planning Department, pursuant to the recommendations cited in the Golf Safety Study contained in Appendix 15.11, *Golf Course Peer Review and Safety Analysis*, of this EIR (September 15, 2000) as follows:

Hole # 1. Additional support (i.e., higher mounding) shall be added along the parking area by providing vegetation on top of the mounding. The tee shall be moved back slightly to the left.

Hole # 2. The back two tee complexes shall be moved to the left and down the slope. The sand bunker shall be moved toward the green.

Hole # 3. This hole shall be made a Par 4. The green shall be located beyond the shallow draw near what is now the proposed second landing area.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary and shall be retained, however, the fairway area shall be cut by five

to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway shall be at 355 feet while the sides (rough areas) shall be five to ten feet higher.

The first landing area shall be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

One of the two following options shall be implemented regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4. The fifth tee location shall be moved to the south by 35 to 40 feet and a retaining wall provided similar to that around the fourth tees. The landing area on the fourth shall move by approximately 30 feet. Signage shall be provided on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee. The overall profile of the entire third and fourth fairways shall be lowered for improved vision with each shot. Also refer to the Hole #3 discussion.

Hole # 5. Two or three more bunkers shall be added down the slope to the right of the green. The back tee shall be moved to the south. One or the other of the following recommendations shall be implemented:

- The hole shall be shorted slightly by moving the green back towards the tee; or

- Dense vegetation of medium height shall be added to screen against long shots landing near the pedestrian trails.

Hole # 6. A bunker or strong shaping (grass hollows) shall be provided between the sixth green and first tee. The back tee on the first hole shall be moved to the left slightly (closer to the property boundary).

Hole # 7. Additional support (i.e., higher mounding) shall be added on the back left. The cart path shall be relocated behind the back tee and down the left-hand side.

Hole # 8. The landform to the right of the eighth tees shall be landscaped to protect players from shots off the ninth tee.

Hole # 9. Vegetation shall be added to the right hand support (higher mounding) past the landing area. The walking trails shall be screened with small to medium height vegetation near the landing.

5.10-2b The Project Applicant shall, to the satisfaction of the Planning Department, implement one or the other of the following modifications to the practice facility's design prior to Development Plan approval:

- The low area between the range and property boundary shall be excavated out. The range's elevation shall be decreased by between 10 and 15 feet and then revegetated with native materials; or

- The elevation of the driving range tee shall be lowered to approximately the 230-foot elevation.

EMERGENCY RESPONSE PLAN

5.10-3 No mitigation measures are required.

FIRE ANTS

5.10-4a Prior to delivery to the UPVA and the RHA, all nursery stock and other items likely to carry fire ants shall be inspected for their presence and identified as free of ants by the landscape and native plant nursery used for the Project.

5.10-4b The Project Applicant shall develop for the suppression of fire ants a Fire Ant Management Program. The Program shall be included as part of the Landscaping Plans for both the UPVA and RHA and shall be submitted for review and approval to the City Planning Department prior to Landscape Plan approval. The Program shall include measures that (1) identify appropriate treatments that can be administered most effectively and at the right times, (2) identify the area to be managed and establish a level of acceptable pest presence/damage/tolerance, (3) establish regular monitoring visits as part of the landscape maintenance program, and (4) treat infestation when monitoring indicates that the situation exceeds the established level of presence.

CUMULATIVE IMPACTS

5.10-5 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Public Health and Safety have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

5.11 PUBLIC SERVICES AND UTILITIES

Information in this Section was obtained from correspondence from pubic services and utility agencies (refer to Appendix 15.1, *Initial Study/Notice of Preparation/ Correspondence*). Public services include fire protection, police protection, schools, and library services. Utilities and service systems include water, wastewater and solid waste. Electricity, natural gas, and telephone services are also evaluated.

This Section includes an Existing Conditions discussion which provides background information necessary to understand potential impacts of the proposed Project. The criteria by which an impact may be considered potentially significant is provided along with a discussion of impacts pursuant to Appendix G of CEQA. Mitigation measures are identified in an effort to reduce potential impacts to less than significant levels.

EXISTING CONDITIONS

PUBLIC SERVICES

Fire Protection

The County of Los Angeles Fire Department (LACFD) provides paramedic and fire protection to the Project area and throughout the City of Rancho Palos Verdes. Fire protection and paramedic service to the Project area is provided by Fire Station #53 which is the jurisdictional engine company for the Project area. Station #53 is located at 6124 Palos Verdes Drive West, Rancho Palos Verdes. The company's available equipment, estimated response distance and time, and the available manpower is detailed in Table. 5.11-1, *Fire Station Information*. As noted in this Table, fire protection serving the area appears to be adequate for the existing development/ land use.

The Los Angeles County Consolidated Fire Protection District is a special district operated by the County Fire Department which receives property tax revenues from the City. The property tax revenues serve to offset the costs of providing fire protection services.

The Project is located within an area described by the Forester and Fire Warden as a Fire Zone 4, Very High Fire Hazard Severity Zone (VHFHSZ). Accordingly, the site is subject to relevant code and ordinance requirements for construction, access, water main, fire hydrants, fire flows, brush clearance and fuel modification plans.

According to the LACFD, Helispot Pad #53A is located on the UPVA, between the City Hall and the existing City Yard. This helispot is used approximately six times per year for two purposes: emergency medical services (EMS) involving cliff

rescues and traffic accidents, and as a water filling station for fighting wildland fires.[1] Additionally, although not a designated helispot, the vacant parking lots located in the RHA have been used informally in the past for EMS.[2]

TABLE 5.11-1
FIRE STATION INFORMATION

Equipment	Manpower	Response Distance (miles)	Response Time (minutes)
Engine 53	3	1.8	3.1
Engine 106	3	3.25	5.6
Truck 106	4	3.25	5.6
Engine 2	3	4.5	7.7
Paramedic Squad 2	2	4.5	7.7

Police Protection

The City falls under the jurisdiction of the Los Angeles County Sheriff's Department (LACSD). The City pays for police services contractually with the LACSD based on a formula that factors patrol minutes, incidents, calls for service, cases handled, traffic accidents, traffic citations and investigations. The contract guarantees that the police would respond to requests for police services within given time parameters.

Currently, the Lomita Sheriff's Station located at 26123 Narbonne Avenue in the City of Lomita, services the Project area. The Lomita Station serves 22.75 square miles, encompassing four cities and three small areas of unincorporated county. The total population of the served area is approximately 79,250. Currently, there is a per shift average of two patrol deputies assigned to the general Project area, who may be deployed as either two one-person units, or one two-person unit. The current response times to calls for service to the Project vicinity are detailed in Table 5.11-2, *Police Response Time*. The response time from the station to the Project area is approximately 20 minutes, depending on traffic.

TABLE 5.11-2

[1] Telecon: Dennis Ware, Chief, Battallion #14B, Los Angeles County Fire Department, December 5, 2000.

[2] Ibid.

POLICE RESPONSE TIMES

Service Need	Response Time
Emergent	5 minutes
Immediate	9 minutes
Routine	20 minutes

Schools

The Project site falls under jurisdiction of the Palos Verdes Peninsula Unified School District (PVPUSD). Table 5.11-3, *Local School Information*, details the schools which would serve the Project site and their corresponding enrollment information.

TABLE 5.11-3
LOCAL SCHOOL INFORMATION

School	Location	Grade Levels	Permanent Classroom Capacity	Existing Enrollment	Relocatable Classroom Capacity
Point Vicente Elementary[1]	30540 Rue de la Pierre Rancho Palos Verdes	Kinder to 5th	322	373	72
Lunada Bay Elementary[1]	520 Paseo Lunado Palos Verdes Estates	Kinder to 5th	428	470	74
Miraleste Intermediate	29323 Palos Verdes Drive East Rancho Palos Verdes	6th to 8th	1,774	1,158	34
Palos Verdes Peninsula High School[1]	27118 Silver Spur Road Rolling Hills Estates	9th to 12th	2,362	2,989	1,324
Notes: 1. Existing enrollment exceeds it's permanent classroom capacity.					

As detailed in Table 5.11-3, three of the four school facilities which would serve the Project site are presently over capacity. It should be noted that the Palos Verdes

Peninsula High School is also presently experiencing significant physical constraints associated with traffic, circulation, and parking issues.[3]

The recent legislation for class size reduction at the primary grade level requires the ratio of students to teachers to be 20:1. The 4th and 5th grade classes are staffed at approximately a 30:1 ratio.

Under California State Assembly Bill 2768 (AB 2768), employees who work outside of the school district they reside in have the option to enroll their children in the school district of the area in which their workplace is located. This is left to the discretion of the school district, as it is dependent upon available capacity and verification of employment by the district.

Libraries

The Project area is serviced by the Palos Verdes Library District (PVLD). PVLD has three facilities that currently service the Project site. These facilities are detailed in Table 5.11-4, *Library Facilities*.

TABLE 5.11-4
LIBRARY FACILITIES

Facility	Location	Distance From Project
Peninsula Center Library	701 Silver Spur Road in Rolling Hills Estates	2.75 miles
Malaga Cove Plaza Library	2400 Via Campensina Palos Verdes Estates	4.75 miles
Miraleste Library	29089 Palos Verdes Drive East in Rancho Palos Verdes	6.50 miles

UTILITIES AND SERVICE SYSTEMS

Wastewater (Sewer)

Wastewater services to the City are provided by the County Sanitation Districts of Los Angeles (CSDLA) and the Los Angeles County Department of Public Works (DPW).

[3] Telecon: Dennis R. Welsh, Ed.D, Assistant Superintendent, Business Services, Palos Verdes Peninsula Unified School District, August 17, 2000.

Wastewater flow originating from the Project site is transported by DPW's local sewers to the Districts' nearest trunk sewer which is the Joint Outfall "J" Unit 1G Trunk Sewer (refer to Exhibit 5.11-1, *Resort Hotel Infrastructure Plan*, and Exhibit 5.11-2, *Upper Point Vicente Infrastructure Plan*). This trunk sewer is located in a right of way north of Palo Verdes Drive South and west of Crestmont Lane, approximately 0.20 miles away from the southern portion of the Project site. This 21-inch diameter trunk sewer has a peak capacity of 5.2 million gallons per day (mgd) and conveyed a peak flow of 2.3 mgd when last measured in 1996.

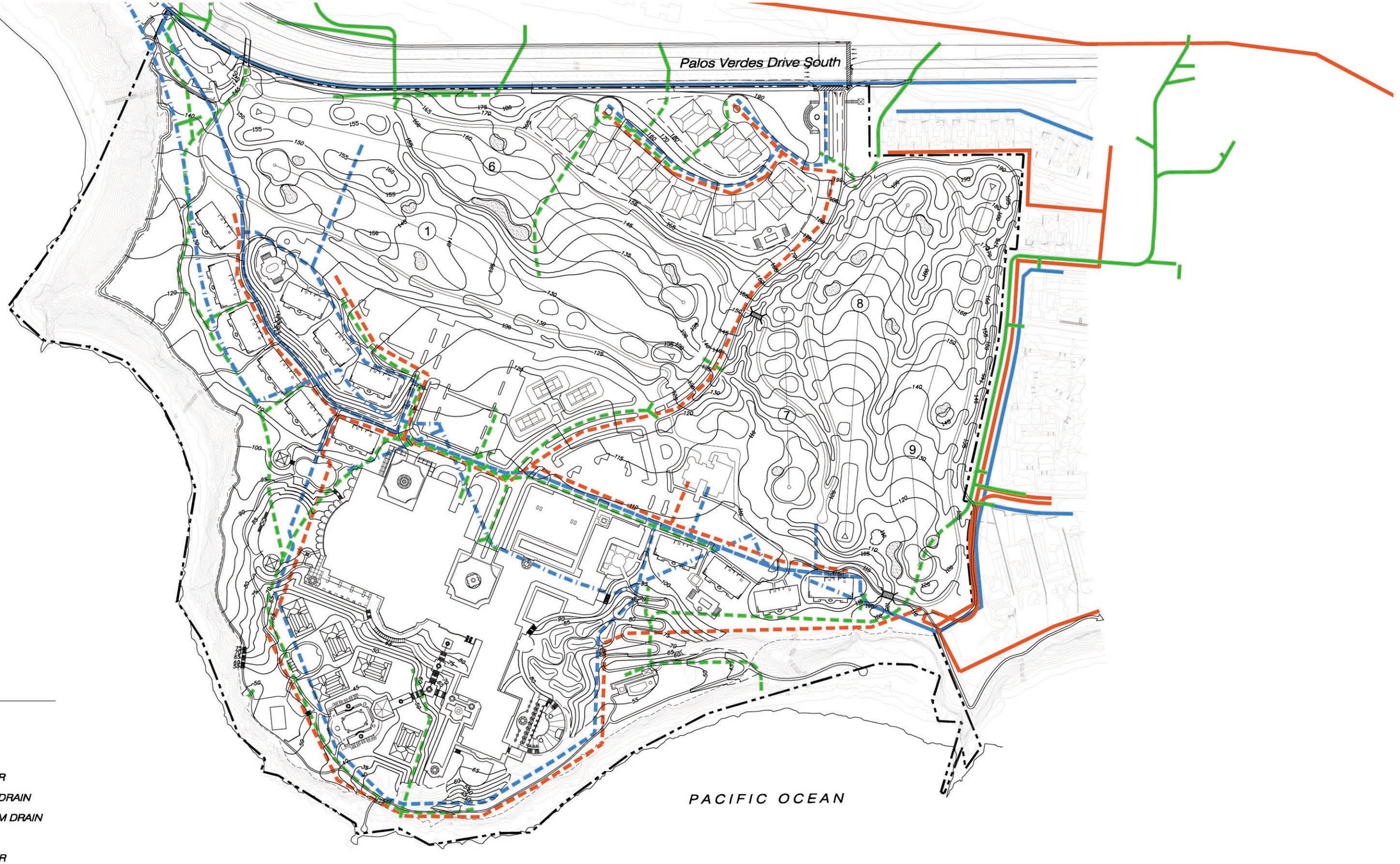
The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is required to construct an incremental expansion of the Sewerage System to accommodate future development.

The wastewater generated by the Project site is treated at the Joint Water Pollution Control Plant (JWPCP), located at 24501 South Figueroa in Carson. The JWPCP has a design capacity of 385.0 mgd and currently processes an average flow of 332.4 mgd. The design capacities of the Districts' wastewater treatment facilities are based on population forecasts adopted in the Southern California Association of Governments' (SCAG) 1994 Regional Comprehensive Plan and Guide (RCPG).

The RCPG is part of the 1994 South Coast Air Quality Management Plan (AQMP). The AQMP and RCPG are jointly prepared by the South Coast Air Quality Management District (SCAQMD) and SCAG as a requirement of the Federal Clean Air Act (CAA). In order to conform with the AQMP, all expansions of Districts' facilities must be sized and service phased in a manner which would be consistent with the Growth Management Element of the RCPG. The Growth Management Element contains a regional growth forecast of the Counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial which was prepared by SCAG. Specific policies included in the RCPG which deal with the management of growth would be incorporated into the AQMP strategies to improve air quality in the South Coast Air Basin. The available capacity of the Districts' treatment facilities are, therefore, limited to levels associated with approved growth identified in the RCPG.

Water

The purveyor of domestic water to the Project site is the California Water Service Company (CWSC). The CWSC water district is 100 percent reliant on imported water deliveries from the Metropolitan Water District (MWD), which are purchased through the West Basin Municipal Water District. There are no local supplies



LEGEND

CONSERVATION ZONES

- EXISTING WATER
- EXISTING WATER (to be removed)
- PROPOSED WATER
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING SEWER
- PROPOSED SEWER

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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SOURCE: FORMA

RBF CONSULTING

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Resort Hotel Area Infrastructure Plan

Exhibit 5.11-1

Point Vicente
Interpretive Center

Coast Guard Site
(Not a Part)

Rancho Palos Verdes
City Hall

Palos Verdes Drive South

LEGEND

CONSERVATION ZONES

- EXISTING WATER
- PROPOSED WATER
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- EXISTING SEWER
- PROPOSED SEWER

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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SOURCE: FORMA

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Upper Pointe Vicente Area Infrastructure Plan

Exhibit 5.11-2

currently available to this district. As a result the availability of water is completely dependent on the supply conditions of the MWD. There are several local projects in design in other CWSC districts, which are within MWD's service area, that would increase local supply availability and reduce reliance on MWD in those areas. These local projects would free up additional imported supplies for use in Rancho Palos Verdes and other similarly reliant communities.

The maximum delivery capacity of the Palos Verdes system is as follows:

Gallons Per Minute	44,185
Per Hour	2.6 MG*
Winter Off Peak	27.8 MG
Summer Off/Mid Peak	46.3 MG
Daily	63.6 MG
Cubic Feet Per Second	98.45

* *MG: million gallons.*

Water lines which exist in the Project vicinity include a 12 inch main within an easement which traverses the Resort Hotel Area (RHA), a 12 inch main in Palos Verdes Drive South, and a 12 inch main in Hawthorne Boulevard.

CWSC has stated that an insufficient water storage capacity exists in the west side of the peninsula.[4]

Solid Waste

The City has non-exclusive agreements with various haulers to provide disposal service for solid waste generated by commercial uses within the City. Generally, each private business owner negotiates the fees for service and arranges for bin(s) and/or roll-off(s) to be provided at their business establishment. The choice of which landfill to use is ultimately made by the hauler that would service the Project area. The closest landfill operated by the County Sanitation Districts of Los Angeles County available to serve the Project is the Puente Hills Landfill located at 2800 South Workman Mill Road in Whittier. The Puente Hills Landfill is permitted to receive 72,000 tons of non-hazardous solid and inert waste per week. According to the District, this landfill is expected to reach capacity between the year 2003 and the year 2006.[5]

[4] Correspondence from Mr. Donald Jensen, District Manager, California Water Service Company, August 25, 2000.

[5] Personal Communication with Ms. Connie Christian, County Sanitation Districts of Los Angeles County, July 13, 1999.

In addition, the closest transfer station operated by the County Sanitation Districts of Los Angeles County available to serve the Project is the South Gate Transfer Station located at 9530 South Garfield in South Gate. The South Gate Transfer Station is permitted to receive 545 tons of non-hazardous solid and inert waste per day.

The California Integrated Waste Management Act, AB 939, requires cities to divert 50 percent of the wastestream away from land disposal by the year 2000[6], respectively. If the 50 percent is not met by the end of year 2000, the City will be required to apply for an extension. In response to AB 939, the City has prepared a Source Reduction and Recycling Element (SRRE). The intent of this Element is to establish goals and policies for the City regarding source reduction, recycling and composting, and environmentally safe solid waste management alternatives to land disposal.

Electric

The Southern California Edison (SCE) Company provides electrical service to the City. A variety of sources provide electricity to SCE, including coal, nuclear, and hydroelectric plants throughout the western states. High voltage (66 kV) electrical lines are typically utilized to transmit power to an area. This power subsequently passes through a substation from which it is distributed to the individual consumers via lower voltage lines. Existing overhead and underground electrical lines are located on the Project site and along Palos Verdes Drive South.

Natural Gas

The Southern California Gas Company (SCG) provides natural gas service to the City. SCG imports natural gas to the area via its interstate system. Gas lines existing in the Project vicinity are located in Palos Verdes Drive South and Palos Verdes Drive West.

The availability of natural gas service is based upon present conditions of gas supply and regulatory policies. As a public utility, SCG is under the jurisdiction of the California Public Utilities Commission and federal regulatory agencies. Should these agencies take any action that effects gas supply, or the condition to which service is available, gas service would be provided in accordance with revised conditions.

Telephone

[6] This 50 percent diversion rate is to be achieved by the end of the 2000 calendar year. According to personal communication with Ms. Lauren Ramezani with the City of Rancho Palos Verdes Public Works Department, the City is currently diverting approximately 42 percent of the wastestream.

Verizon Communications (VZ) currently provides telephone service to the Project site. At present, telephone lines run through numerous locations within the Project site. One line runs along Hawthorne Boulevard, from the City of Rolling Hills Estates and then proceeding west along Via Capri. Telephone lines also run south from Hawthorne Boulevard - adjacent to the west side of the Salvation Army Regional Training Center, to Palos Verdes Drive South, then east to Nantasket Drive. In addition there is a telephone line located along Hawthorne Boulevard.

Additionally, VZ has a MPOE[7] established on the RHA with legs extending from the terminal room located in an existing Marineland building, back to VZ's aerial poles. In addition, there are numerous telephone lines throughout the property which were established by the previous occupant of the property.

IMPACTS

Significance Criteria

Pursuant to Appendix G, Environmental Checklist of the California Environmental Quality Act (CEQA) Guidelines, a Project would normally have a significant adverse impact on public services if it results in any of the following:

Public Services

A significant impact would occur if the project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services. (See Impact Statements 5.11-1, 5.11-2, 5.11-3, 5.11-4 and 5.11-5).

Utilities and Service Systems

A significant impact would occur if the project. . .

- *Exceeds wastewater treatment requirements of the applicable Regional Water Quality Control Board* (see Impact Statement 5.11-6)*;*
- *Requires or results in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects*(see Impact Statement 5.11-6 and 5.11-7)*;*

[7] MOPE is defined as a Minimum Point of Entry.

- *Requires or results in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (refer to Section 5.7, Drainage and Water Quality);*

- *Has insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed* (see Impact Statement 5.11-7)*;*

- *Results in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments* (see Impact Statement 5.11-6)*;*

- *Is not served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs* (see Impact Statement 5.11-8)*; and/or*

- *Does not comply with federal, state, and local statutes and regulations related to solid waste* (see Impact Statement 5.11-8)*.*

Potential impacts are categorized below according to topic. Mitigation measures at the end of this Section directly correspond to the impact statements below.

PUBLIC SERVICES

Fire Protection

5.11-1 *The proposed Project may result in significant physical impacts with respect to fire protection. Potential fire service impacts are considered less than significant after mitigation and compliance with all applicable codes and ordinances.*

As previously noted, fire protection serving the area appears to be adequate for the existing development/land use. However, each additional development creates greater demands on existing resources. Consequently, it is anticipated that Project implementation would have an impact on the adequacy of the Fire Department's level of service since the proposed resort development would increase the potential for urban-related fire and life safety occurrences on the site. Since the Project is situated within the Consolidated Fire Protection District, the District would receive property tax revenues from the property. This funding is to be used for staffing and equipment and would result in less than significant impacts.

Project implementation would potentially impact the Fire Department's level of service, however, it would not warrant the construction of new fire protection related

facilities, nor would it result in the need for alteration of existing facilities. Additionally, Project implementation would result in the removal of Helispot Pad #53A located in the UPVA. This impact would be considered significant unless mitigated. The specified mitigation requiring that the Applicant consult with the LACFD would reduce this impact to a less than significant level.

According to the Fire Department, the size, complexity, and projected use of the proposed development may necessitate multiple ingress/egress access for the circulation of traffic and emergency response issues. The Project proposes three emergency access roads within the RHA for use by fire, paramedic and other public safety services. These emergency access points are illustrated in Exhibit 3.7, *Circulation Plan*, and are described below. Crash-through gates or other facilities approved by the City would be provided for these emergency access drives to prevent non-emergency use of these access gates. Emergency access points include the following:

- An emergency access point is provided at the westerly parking area for the resort casitas, connecting the proposed public parking lot (Planning Area 2-A)adjacent to the existing Point Vicente Fishing Access Parking. (This new lot also provides direct access to/from the eastbound lanes of Palos Verdes Drive South);

- A second emergency access point is proposed at the east portion of the main Hotel building. This emergency route is accessed from the easterly parking area for the resort casitas. The trail passes behind the east casita area adjacent to the eastern portion of the Resort, beyond the golf/putting/chipping area, and terminates in a regulation turnaround area beyond the Lower Pool.

- The third emergency entry access is from the west resort parking area located near the ballroom access road, and connects to a pedestrian trail in the RHA. The trail is adjacent to the western portion of the Resort and terminates near the Sunset Pool and bungalows.

As previously stated, the proposed development would be required to comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and hydrants, brush clearance and fuel modification plans. The proposed Project would be subject to the applicable codes which include fire flows up to 5,000 gallons per minute at 20 pounds per square inch residual pressure for up to a five hour duration; and minimum driveway widths.

As the Project site is located within Fire Zone 4, the Project would be subject to compliance with Section 1117.2.1 of the County Fire Code which requires a Fuel Modification Plan, a Landscape Plan and an Irrigation Plan to be submitted prior to any new construction, remodeling, modification or reconstruction. The Fire Code states the following requirement:

> *"Maintain around and adjacent to each building or structure an additional fire protection or firebreak made by removing and clearing away all brush, vegetation or other growth which in the opinion of the Fire Chief or Commissioner is then or may become dangerously flammable..."*

Compliance with the specified mitigation, and County and City codes and ordinances, including those with respect to the installation of fire sprinkler systems in all buildings, would ensure that a less than significant impact would occur in regards to fire protection services.

Police Protection

5.11-2 *Project implementation may result in significant physical impacts with respect to police protection. Potential impacts would be reduced to a less than significant level with implementation of the specified mitigation.*

The LACSD anticipates that there would be an increase in the number of calls for service, and patrol requirements as a result of Project implementation. The precise impact (i.e., increase in policing costs) would depend upon the ultimate number and sizes of any hotel and/or transient housing, restaurants/bars, entertainments facilities, type of parking facilities, number of "compact" parking spaces, number and types of events, and other factors. This impact would be considered significant unless mitigated. However, with mitigation, this impact would be reduced to a less than significant level.

The proposed Project along with existing conditions would contribute to the need for the City to increase their contract for service with the LACSD by one deputy for 24-hours (equivalent to three additional shifts per day).[8] The Applicant would be required to pay their fair share portion of the funding associated with the additional deputy. Payment by the Applicant of their fair share portion of the funding associated with the additional deputy would reduce the Project's impact to a less than significant level.

The Project does not propose the construction of new police protection related facilities, nor does it propose the physical alteration of existing facilities. Further, while Project implementation would result in an increase in calls for service to the area, it would not warrant the construction of new police protection related facilities, nor would it result in the need for alteration of existing facilities. Although the Project would warrant the addition of one deputy for 24-hours, the increase would not require any physical alterations of existing facilities. Calls for police protection

[8] Telecon: Mike Grimaldi, Lieutenant, Los Angeles County Sheriff's Department, August 24, 2000.

would be reduced through implementation of measures relative to parking, signage, notification and traffic control. With implementation of the specified mitigation measures, the proposed Project would not result in substantial adverse physical impacts regarding police protection.

Schools

5.11-3 *Project implementation may result in significant physical impacts to existing school facilities. Analysis has concluded that a less than significant impact would occur in this regard.*

Project implementation would not directly generate students as there are no residences proposed as a part of the Project. However, AB 2768 allows employees who work outside of the school district they reside in the option of enrolling their children in the school district of the area in which their workplace is located. The only source of a student population increase would be if employees of the hotel were to request that their children be enrolled in local schools. Therefore, any employees of the proposed Resort who wish to enroll their children in the PVPUSD have the opportunity to do so, assuming acceptance by the District. Based on this legislation, Project implementation has the potential to increase the PVPUSD's student population. This potential increase in student population resulting from interdistrict transfers is not anticipated to significantly impact the District since any interdistrict transfers would be accommodated by the District only if sufficient capacity exists at the time. Therefore, a significant impact is not anticipated in this regard.

The Developer Fees are presently set at $0.25 per square foot for commercial uses. With payment of the Developer Fees, impacts to schools are considered less than significant. Accordingly, the proposed Project would not result in physical impacts to existing school facilities.

Libraries

5.11-4 *Project implementation may result in an increase in demand for library service. However, the proposed Project would not result in significant physical impacts to library facilities and a significant impact is not anticipated in this regard.*

The PVLD has noted that is unlikely that significant library usage would occur from the resort hotel facilities and golf course[9]. The anticipated increase in patronage

[9] Telecon: Diana Moreno, Palos Verdes Library District, August 7, 2000.

would not create a need for the construction of new facilities or alteration of existing facilities, thus, substantial adverse physical impacts to library facilities would not occur as a result of Project implementation.

UTILITIES AND SERVICE SYSTEMS

Wastewater (Sewer)

5.11-5 *Project implementation may generate additional wastewater beyond current conditions and may require an incremental expansion of the existing sewerage system and expansion of the water treatment facility. With payment of appropriate connection fees impacts to wastewater systems and facilities would be considered as less than significant.*

Project implementation would increase the quantity of wastewater which is attributable to the Project site. Table 5.11-5, *Wastewater Generation Estimates*, provides a breakdown of the expected average wastewater flow that would be generated by the proposed Project based on coefficients provided by the County Sanitation Districts. As shown in Table 5.11-5, the proposed development would result in the generation of approximately 137,214 gallons per day of wastewater. The developer would have the responsibility of conveying any wastewater generated by the Project to the nearest local sewer and/or trunk sewer.

Exhibit 5.11-1, *Resort Hotel Area Infrastructure Plan*, and Exhibit 5.11-2, *Upper Point Vicente Infrastructure Plan* illustrates the proposed wastewater collection system. The proposed Sewer Plan for the RHA involves delivering sewage to the LACSD Long Point Pump Station. This would require a gravity system serving the “higher” elevation area, and a lift station serving the "lower" areas along the coast. A 6-inch Force Main would pump the sewage from the lower elevation area to the existing pump station located on the higher area of the RHA. The gravity system would consist of 8-inch sewer lines running along streets and around the main buildings where there is no street access.

A detailed analysis would be required prior to recordation of the Final Tract Map for the RHA to verify flows and capacity of the affected tributary area (refer to Section 5.6, *Hydrology and Drainage*). Presently, no off-site improvements are anticipated to be necessary in order to accommodate the proposed Project.

The County Sanitation District has stated their intent to provide sewer service up to the levels which are legally permitted. The legally permitted levels are contingent upon the available capacity of the Districts’ treatment facilities which are in turn limited to levels associated with approved growth identified in the RCPG. In 1989, approval by the City and the Coastal Commission was granted for development of the RHA with land uses including a major destination hotel and conference center,

an athletic club, and a nine-hole golf course. The estimated wastewater generation for the currently approved development is approximately 140,000 gallons of wastewater per day.[10] As noted above, the currently proposed development would result in the generation of approximately 137,214 gallons per day of wastewater. Therefore, wastewater flow associated with the proposed Project would not exceed levels associated with approved growth as identified in the RCPG.

Project implementation would not result in a significant impact with respect to wastewater services. The District charges a fee for the privilege of connecting (directly or indirectly) to their sewerage system or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. With payment of this connection fee to offset the costs to construct an incremental expansion of the existing sewerage system, the Project's impact would be considered as less than significant. The wastewater generated by the proposed Project would ultimately be treated at the Joint Water Pollution Control Plant in Carson. The proposed Project's estimated wastewater flow of 137,214 gallons per day would not exceed the currently approved development's estimated wastewater flow of approximately 140,000 gallons of per day. Therefore, Project implementation would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities and a significant impact is not anticipated in this regard.

Water

5.11-6 *Project implementation may increase the demand for water beyond current conditions requiring the expansion of existing facilities. Analysis has concluded that a less than significant impact would occur in this regard.*

CWSC would continue to provide water service to the Project site. Based upon data provided by CWSC, the total average daily water demand estimates for the proposed Project would be 151,916 cubic feet per month. Table 5.11-6, *Water Demand Estimates*, details the average daily water demand.

TABLE 5.11-5
WASTEWATER GENERATION ESTIMATES

[10] Estimate derived based upon data provided in the Draft EIR for the Long Point Master Plan Development (Myra L. Frank & Associates, June 1989, page 2-69) and development entitlement data provided by the City.

Use	Units or Square Feet	Generation Rate (Gallons/Day/Unit) or 1,000 Square Feet	Wastewater Flow (Gallons / Day)
Hotel Rooms	400	125	50,000
Resort Casitas	150	156	23,400
Resort Villas	32	260	8,320
Restaurants	(400 seats) 9,000	1,000	9,000
Conferee Dining	(200 seats) 3,000	1,000	3,000
Lounges/Beverage Bars	(150 seats) 2,250	1,000	2,250
Pool Bar	2,000	1,000	2,000
Banquet/Meeting Rooms/Retail	68,000	125	8,500
Health Spa	25,000	600	15,000
Parks/Golf Course/Practice Facility	81.2 acres	--	15,744
		Total	**137,214**

Source: County Sanitation Districts of Los Angeles, August 7, 2000.

The Project Applicant would be required by the CWSC to make all improvements necessary to extend water service to the Project site. The water system for the proposed Project would involve relocation of the existing 12-inch water line. The system would also connect the east and west sides of the RHA to replace the existing line which conflicts with the proposed buildings. Water to service the RHA would be from the relocated 12-inch water line, and portions of the existing 12-inch line that would not be removed. The water lines would extend to loop around the buildings located furthest south of the Resort for fire protection purposes.

TABLE 5.11-6
WATER DEMAND ESTIMATES

Use	Units	Consumption	Water
Resort Rooms	582 rooms	88[1]	51,216
Restaurants	400 seats	50[3]	20,000
Conferee Dining	200 seats	50[3]	10,000
Lounges/Beverage Bars	150 seats	50[3]	7,500
Banquet/Meeting Rooms	68,000	0.75[3]	51,000
Health Spa	25,000	300/1000[3]	7,500
Golf Course/Practice Facility	71 acres	62[2]	4,402
Public Parks	4.8 acres[4]	62[2]	298
		Total	**151,916**

Source: California Water Service Company

Notes:
1. Currently, there are no hotels located on the Peninsula. The closet hotel to the Project site is the Holiday Inn Crown Plaza at Redondo Beach, a 339 room facility. During 1999, this facility consumed approximately 29,595 cubic feet of water. The consumption rate for the resort uses was utilized based on consumption of the Holiday Inn Crown Plaza for 1999.
2. The consumption rate for the golf course was derived from the water consumption during 1999 for the Los Verdes Golf Course.
3 Generation rate obtained from the Draft EIR for the Long Point Master Plan Development, Myra L. Frank & Associates, June 1989, Page 2-71.
4. Includes the following proposed Public Parks: Bluff-Top Park (2-acres), Long Point Overlook (0.2-acres), City Hall Park Expansion (1.6-acres), and Point Vicente Overlook (1.0-acres).

Water conservation measures are proposed by the Applicant including the installation of low volume toilets, water saver showers, and energy conservation fixtures. Where appropriate, drought-tolerant trees and shrubs, and low-water-requirement lawns would be installed.[11]

CWSC does not currently have a reclaimed water program available in this area. In the event such a program is made available by CWSC prior to construction, the Project Applicant has stated their intent to provide a reclaimed water distribution system for golf course landscape irrigation. The system would be reviewed and approved by CWSC.

[11] Long Point Resort Permit Documentation, Forma, June 23, 2000, Page 5-27.

As previously stated, an approval by the City and the Coastal Commission was granted for development of the RHA in 1989. The estimated water demand for the currently approved development was 271,976 gallons of water per day.[12] As noted above, the currently proposed development would result in the demand of approximately 151,916 gallons per day of water. During preparation of the most recent CWSC Urban Water Management Plan in 1995, development under the 1989 entitlements was assumed for the Project site. Thus, the demand for water services created by the current proposal would not exceed the demand for water anticipated for the area which the CWSC has projected.

Sufficient water supplies are available to serve the Project from existing resources. However, due to an insufficient water storage capacity which currently exists in the west portion of the peninsula, the CWSC has stated that a five million gallon tank would be required in the Project vicinity.[13] The Applicant would be required to enter into an agreement with CWSC to determine their fair share portion of the funding associated with the water tank. Payment by the Applicant of their fair share portion of the funding associated with the tank would reduce the Project's impact to a less than significant level.

Solid Waste

5.11-7 *Development of the Project area may result in increased solid waste generation. Project compliance with the City's AB 939 waste reduction requirements would reduce the amount of solid waste which is disposed of at the landfill and maintain potential impacts at less than significant levels.*

The proposed Project would generate an estimated 2,096 pounds of solid waste per day.[14] This projected increase in solid waste generation would increase the demand to provide disposal service and would impact the capacities at the Puente Hills Landfills and South Gate Transfer Station. Further, this increased solid waste generation would incrementally shorten the lifespan of the Puente Hills Landfills.

It is anticipated that the Project's estimated volume of solid waste generation would be reduced through the storage and collection of recyclables. Additionally, it should

[12] Estimate derived based upon data provided in the Draft EIR for the Long Point Master Plan Development (Myra L. Frank & Associates, June 1989, Page 2-69.) and development entitlement data provided by the City.

[13] Correspondence from Mr. Donald Jensen, District Manager, California Water Service Company, August 25, 2000.

[14] The generation rate of 3.6 lbs/unit/day of hotel development, was obtained from page 2-68 of the Draft Environmental Impact Report for the Long Point Master Plan Development , Myra L. Frank & Associates, June 1989.

be noted that the volume of the Project's solid waste which would be ultimately disposed of at Puente Hills Landfills would be further reduced due to the requirements of AB 939. The City of Rancho Palos Verdes, Public Works Department has identified further measures to reduce the disposal of solid waste including but not limited to the following:

- Grasscycling of greenwaste generated from the golf course;
- Recycling of bottles, glass, and aluminum cans; and
- Preparation of annual reports on the progress of the Recycling Program.

A Demolition and Recycling Plan for the Long Point Resort and Golf Course was prepared by PBS&J, (June 2000). The purpose of this Plan was to provide an insight to the recycling efforts which would be implemented during the demolition and construction of the proposed Project. During demolition of the existing structures and vegetation on-site, relocation and/or re-use items existing on-site would occur where feasible. For example, large steel warehouses such as the one existing on the RHA are salvaged and relocated by users wishing to acquire such warehouses. Approximately 30,000 cubic yards of existing concrete and asphalt are proposed to be reduced to a base aggregate which would be used as structural section underlying road improvements, parking lots, and other structures. In addition, approximately 250 non-native trees currently on-site are planned to be boxed, stored, and incorporated into the landscaping plan for the resort and golf course. The balance of the trees and shrubbery compatible with shredding and composting would be incorporated into the landscaping plan as compost.

Electric

5.11-8 *Project implementation may result in an increase in the demand for electrical service beyond existing conditions and may require expansion of the existing electrical system. Analysis has concluded that impacts would be less than significant.*

The proposed development would require additional electric facilities to service the site. SCE has stated that they stand ready to install electrical distribution facilities within the Project area. Upon notification from the Project Applicant and payment of advances, SCE would install an underground distribution system within the development, as well as underground service laterals from the distribution system to individual parcels. The developer would be responsible for providing and funding any additional electric facilities required to service the Project. Additionally, all SCE utility lines installed to serve new construction shall be placed underground in accordance with Development Code Section 17.54.020. The Code requires that "all utility lines installed to serve new construction be placed underground from an existing power pole or other point of connection off-site."

Implementation of the proposed Project would not result in a significant impact with respect to electric services as it would not significantly impact SCE's system capacity or ability to provide service. Additionally, since the required electrical distribution facilities would occur within the Project limits, implementation of the proposed Project would not result in substantial adverse physical impacts.

Natural Gas

5.11-9 *Project implementation may result in an increase in the demand for natural gas service beyond existing conditions and may require expansion of the existing gas system. Analysis has concluded that a less than significant impact would occur in this regard.*

Implementation of the proposed development would result in an increased demand for natural gas service to the Project site. The Gas Company has indicated that they have facilities in the Project area and that gas service to the Project could be provided without any significant impact on the environment. Furthermore, all SCG utility lines installed to serve new construction shall be placed underground in accordance with Development Code Section 17.54.020, Underground Utilities. Additionally, increases in natural gas demand generated from the proposed development can be accommodated and it would be the responsibility of the developer to provide the substructure work. Future natural gas service for the Project area would need to be coordinated with the Gas Company's engineering department for a comprehensive plan as to levels of service required.

Telephone

5.11-10 *Development of the proposed Project would result in the need for additional telephone service beyond existing conditions. Analysis has concluded that a less than significant impact would occur in this regard.*

VZ has indicated that Project implementation would not significantly impact telephone facilities or services and telephone service would be available for the Project. VZ telephone facilities that are within the Project area would need to be rerouted to meet the needs of adjacent land uses. Additionally, all VZ utility lines installed to serve new construction shall be placed underground in accordance with Development Code Section 17.54.020, Underground Utilities. Project implementation would not significantly impact the VZ's system capacity or ability to provide service. Therefore, significant impacts with respect to telephone service are not anticipated.

CUMULATIVE IMPACTS

5.11-11 *Cumulative development may result in an increase in the demand for public services and an increase in the consumption rates for public utilities, potentially requiring expansions of the existing utility systems. Analysis has concluded that cumulative development is subject to standards and requirements of reviewing agencies and no additional mitigation is required.*

In relation to past, present, and reasonable foreseeable future development, the proposed Project would cumulatively contribute to an increased demand for fire, water, sewer, stormdrain, solid waste, and energy utilities. The Long Point Resort Project and related projects would add to the cumulative demand for such services through the introduction of new residents, tenants, and users of the proposed facilities. However, this growth has been accounted for in long range plans. The site is located in an area which is served by all utilities (i.e. water, sewer, and storm drains) and other public services (i.e., police, fire, and sold waste). All of these existing facilities can be readily extended into the area to serve the proposed development. No additional governmental services or activities would be cumulatively impacted by the proposed Project. Since the respective providers of such services and facilities have indicated that the Project's incremental impacts are sufficiently mitigated, cumulative impacts on public services and utilities anticipated to result from this development are not considered to be significant.

MITIGATION MEASURES

The following mitigation measures directly correspond to the identified impact statements provided in the impacts Subsection:

PUBLIC SERVICES

Fire Protection

5.11-1 Prior to Grading Permit issuance for the UPVA, the Project Applicant shall consult with the Los Angeles County Fire Department with respect to avoidance of Helispot Pad #53A or the provision of an alternate pad within the Project area.

Police Protection

5.11-2 The Project Applicant shall, to the satisfaction of the City Planning Department, implement the following measures:

- Minimize number of compact parking spaces;
- Maximize required signage;
- Provide Sheriff's Department a minimum of 30 days prior notice of upcoming events; and

- Provide additional traffic control measures beyond public traffic signals at the main entrance to the Resort.

Schools

5.11-3 No mitigation measures are required.

Libraries

5.11-4 No mitigation measures are required.

UTILITIES AND SERVICE SYSTEMS

Wastewater

5.11-5 No mitigation measures are required.

Water

5.11-6 No mitigation measures are required.

Solid Waste

5.11-7 The Project Applicant shall, to the satisfaction of the City Public Works Department, implement the following on an on-going basis:

- Grasscycle, use as mulch, or compost all greenwaste generated from the Golf Course;

- Recycle all bottles, aluminum cans, glass, and foodwaste. The foodwaste generated on-site may be used for composting efforts if the Project Applicant desires; and

- Annual reports shall be prepared and submitted to the City Public Works Department on the progress of the recycling program. This report shall include the amount of tonnage which has been diverted to trash, recycling, composting and grasscycling.

Electric

5.11-8 No mitigation measures are required.

Natural Gas

5.11-9 No mitigation measures are required.

Telephone

5.11-10 No mitigation measures are required.

CUMULATIVE

5.11-11 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No unavoidable significant impacts related to public services and utilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Codes.

5.12 TRAFFIC AND CIRCULATION

This Section is based upon the Project Traffic Impact Analysis prepared by Urban Crossroads, Inc. (January 16, 2001), and the Revised Project Trip Generation, Internal Circulation Design, and Parking Demand Analysis prepared by LSA Associates, Inc., (May 24, 2000) which are included as Appendix 15.12, *Traffic Impact Analysis*, of this document. The purpose of the traffic impact analysis is to evaluate the development of the Long Point Resort Project from a traffic circulation standpoint. The evaluation considers impacts to local roadways, intersections, regional facilities and ingress/egress locations on-site. Mitigation measures are recommended to reduce impacts to less than significant levels.

This traffic study includes an evaluation of existing traffic conditions, existing plus ambient growth traffic conditions, existing plus ambient growth plus proposed Project traffic conditions, existing plus ambient growth plus other development traffic conditions, and existing plus ambient growth plus proposed Project plus other development traffic conditions for the study area. This analysis is in accordance with the County of Los Angeles traffic study guidelines and is intended to be consistent with traffic impact analysis guidelines set forth in the latest 1997 Congestion Management Program (CMP) prepared by the Los Angeles County Metropolitan Transportation Authority (MTA).

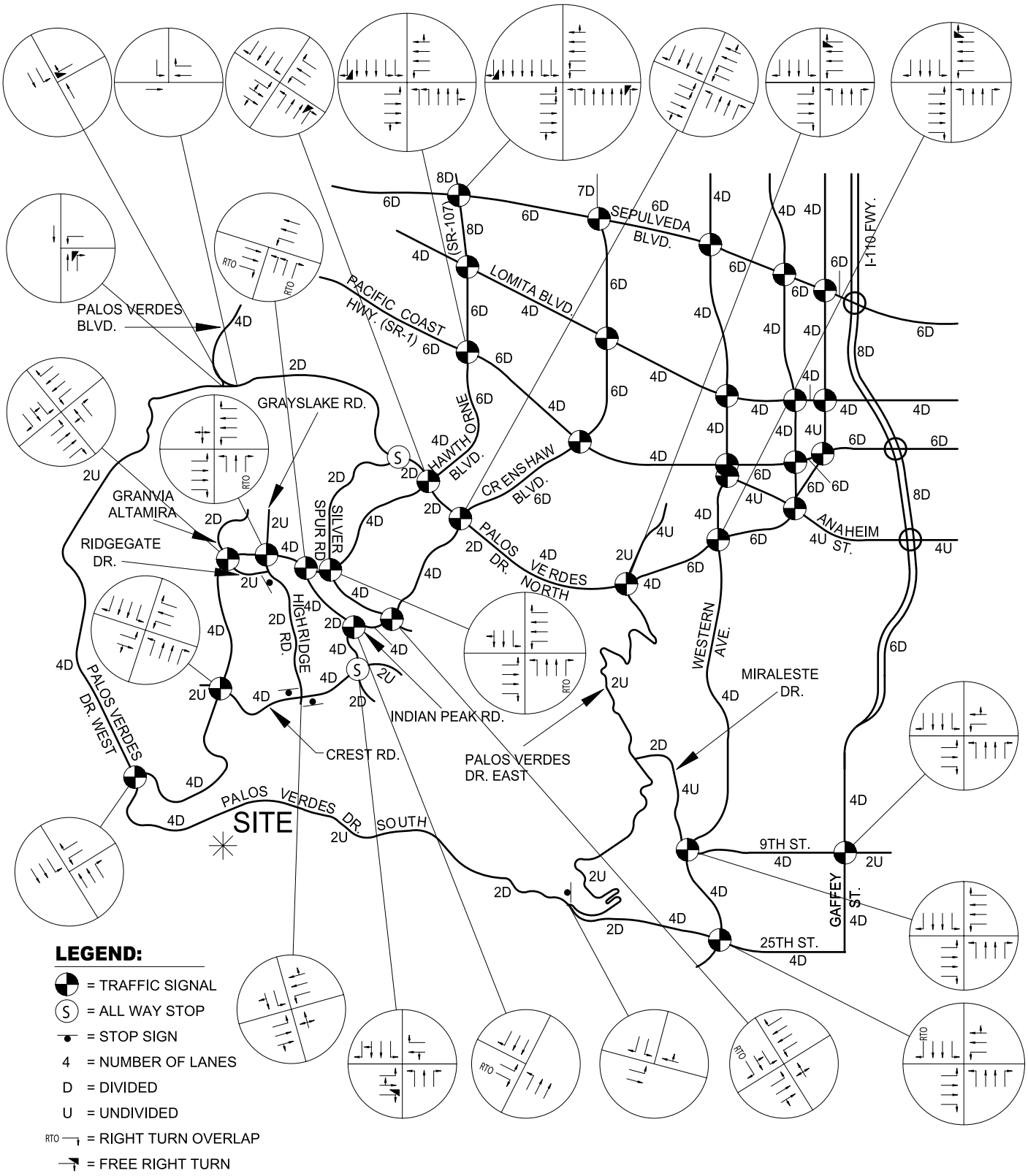
EXISTING CONDITIONS

The following discussion summarizes existing roadway and traffic conditions in the study area. The number of through travel lanes for existing roadways and intersection controls are presented along with existing traffic count data. This data was used to analyze existing traffic operations in the study area.

EXISTING STREET SYSTEM

Exhibit 5.12-1, *Existing Number of Through Lanes and Intersection Controls,* illustrates the existing conditions for the Project area. The following is a description of the street system in the Project vicinity:

Palos Verdes Drive West is currently a two lane undivided roadway south of Palos Verdes Drive North and a four lane divided roadway north of Hawthorne Boulevard. It carries approximately 8,600 to 20,900 vehicles per day in the study area. The right-of-way varies in the City of Rancho Palos Verdes.



NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Existing Number of Through Lanes and Intersection Controls

Exhibit 5.12-1

Hawthorne Boulevard is currently a four lane divided roadway from north of Palos Verdes Drive North to Palos Verdes Drive West. It is a six lane divided roadway from south of Pacific Coast Highway to north of Sepulveda Boulevard. It carries approximately 8,300 to 63,300 vehicles per day in the study area. The right-of-way is 100 feet wide in the City of Rancho Palos Verdes.

Crenshaw Boulevard is currently a two lane divided roadway south of Crest Road, a four lane divided roadway from Crest Road to Palos Verdes Drive North, and a six lane divided roadway north of Palos Verdes Drive North. It carries approximately 2,800 to 26,400 vehicles per day in the study area. The right-of-way is 80 feet wide in the City of Rancho Palos Verdes.

Palos Verdes Drive East is currently a two lane undivided roadway south of Palos Verdes Drive North and a four lane divided roadway north of Palos Verdes Drive North. It carries approximately 2,200 to 9,900 vehicles per day in the study area. The right-of-way is 75 feet wide from Calle Aventura to Ganado Drive and 50 feet wide from Ganado Drive to Palos Verdes Drive South/25th Street in the City of Rancho Palos Verdes.

Western Avenue is currently a four lane divided roadway north of 25th Street. It carries approximately 6,400 to 30,500 vehicles per day in the study area.

Gaffey Street is currently a four lane divided roadway north of 25th Street. It carries approximately 25,300 to 26,900 vehicles per day in the study area.

Sepulveda Boulevard is currently a six lane divided roadway in the vicinity of the Project site. It carries approximately 30,400 to 43,400 vehicles per day in the study area.

Pacific Coast Highway is currently a four lane divided roadway between Crenshaw Boulevard and Western Avenue and is a six lane divided roadway west of Crenshaw Boulevard and east of Western Avenue. It carries approximately 40,000 to 43,000 vehicles per day in the study area.

Palos Verdes Drive North is currently a two lane divided roadway between Palos Verdes Boulevard and east of Crenshaw Boulevard, a four lane divided roadway between east of Crenshaw Boulevard and east of Palos Verdes Drive East, and a six lane divided roadway east of Palos Verdes Drive East. It carries approximately 11,500 to 28,500 vehicles per day in the study area.

Silver Spur Road is currently a two lane divided roadway between Palos Verdes Drive North and Hawthorne Boulevard and a four lane divided roadway south of

Hawthorne Boulevard. It carries approximately 13,000 to 17,500 vehicles per day in the study area. The right-of-way is 80 feet wide in the City of Rancho Palos Verdes.

Indian Peak Road is currently a two lane divided roadway north of Crenshaw Boulevard and a four lane divided roadway south of Hawthorne Boulevard. It carries approximately 6,100 to 10,100 vehicles per day in the study area. The right-of-way is 80 feet wide in the City of Rancho Palos Verdes.

Highridge Road/Grayslake Road is currently a two lane undivided roadway north of Hawthorne Boulevard and a two lane divided roadway south of Hawthorne Boulevard. It carries approximately 600 to 7,500 vehicles per day in the study area. The right-of-way is 100 feet wide in the City of Rancho Palos Verdes.

Granvia Altamira/Ridgegate Drive is currently a two lane undivided roadway south of Hawthorne Boulevard and a two lane divided roadway north of Hawthorne Boulevard. It carries approximately 5,800 to 7,700 vehicles per day in the study area.

Crest Road is currently a two lane undivided roadway west of Hawthorne Boulevard and east of Crenshaw Boulevard and a four lane divided roadway between Hawthorne Boulevard and Crenshaw Boulevard. It carries approximately 2,900 to 8,300 vehicles per day in the study area. The right-of-way is 100 feet wide in the City of Rancho Palos Verdes.

Miraleste Drive/9th Street is currently a two lane undivided roadway to four lanes divided roadway east of Palos Verdes Drive East. It carries approximately 5,500 to 7,700 vehicles per day in the study area. The right-of-way is 170 feet wide in the City of Rancho Palos Verdes.

Palos Verdes Drive South/25th Street is currently a two lane undivided roadway to four lane divided roadway between Hawthorne Boulevard and Gaffey Street. It carries approximately 10,400 to 16,300 vehicles per day in the study area. The right-of-way for Palos Verdes Drive South is 100 feet wide from Palos Verdes Drive West to Narcissa Drive and Schooner Drive to 25th Street and the right-of-way for 25th Street varies from 60 to 70 feet wide in the City of Rancho Palos Verdes.

The study area was analyzed for the following intersections:

Palos Verdes Boulevard (NS) at:

- Palos Verdes Drive West – North (EW)
- Palos Verdes Drive West – South (EW)
- Palos Verdes Drive West – East (EW)

Palos Verdes Drive West (NS) at:

- Hawthorne Boulevard (EW)

Granvia Altamira (NS) at:
- Hawthorne Boulevard (EW)

Highridge Road (NS) at:
- Hawthorne Boulevard (EW)
- Crest Road (EW)

Indian Peak Road (NS) at:
- Hawthorne Boulevard (EW)
- Crenshaw Boulevard (EW)

Silver Spur Road (NS) at:
- Hawthorne Boulevard (EW)
- Crenshaw Boulevard (EW)

Hawthorne Boulevard (NS) at:
- Sepulveda Boulevard (EW)
- Pacific Coast Highway (EW)
- Palos Verdes Drive North (EW)
- Crest Road (EW)

Crenshaw Boulevard (NS) at:
- Palos Verdes Drive North (EW)
- Crest Road (EW)

Project Entrance (NS) at:
- Palos Verdes Drive South (EW)

Palos Verdes Drive East (NS) at:
- Palos Verdes Drive North (EW)
- Palos Verdes Drive South (EW)

Western Avenue (NS) at:
- Palos Verdes Drive North (EW)
- 9th Street (EW
- 25th Street (EW)

Gaffey Street (NS) at:
- 9th Street (EW)

The intersection of Gaffey Street/15th Street has not been analyzed within the traffic study. It is not a CMP arterial monitoring intersection and is currently not a major through route.

EXISTING TRAFFIC VOLUMES

Existing average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 5.12-2, *Existing ADT*. ADT volumes are based upon the traffic data collected from the *1998 Traffic Volumes on California State Highways* by Caltrans, previous traffic studies and are factored up from the peak hour counts made for Urban Crossroads using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 10 = Leg Volume

ANALYSIS METHODOLOGY

The technique used to assess the operation of a signalized intersection is known as Intersection Capacity Utilization (ICU). To calculate an ICU the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a percent. The percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. The levels of service for existing intersections in the vicinity of the Project are shown in Table 5.12-1, *Intersection Analysis for Existing Conditions*. The City of Rancho Palos Verdes' performance criteria for intersections is LOS D.

TRAFFIC ANALYSIS

Peak Hour Intersection Analysis

Existing intersection level of service calculations are based upon AM and PM peak hour turning movement counts conducted in May, July and August, 1999. Existing intersections within the study area are currently operating at Level of Service "D" or better during the peak hours, except for the following study area intersections which operate at Level of Service "E" or "F" during the peak hours:

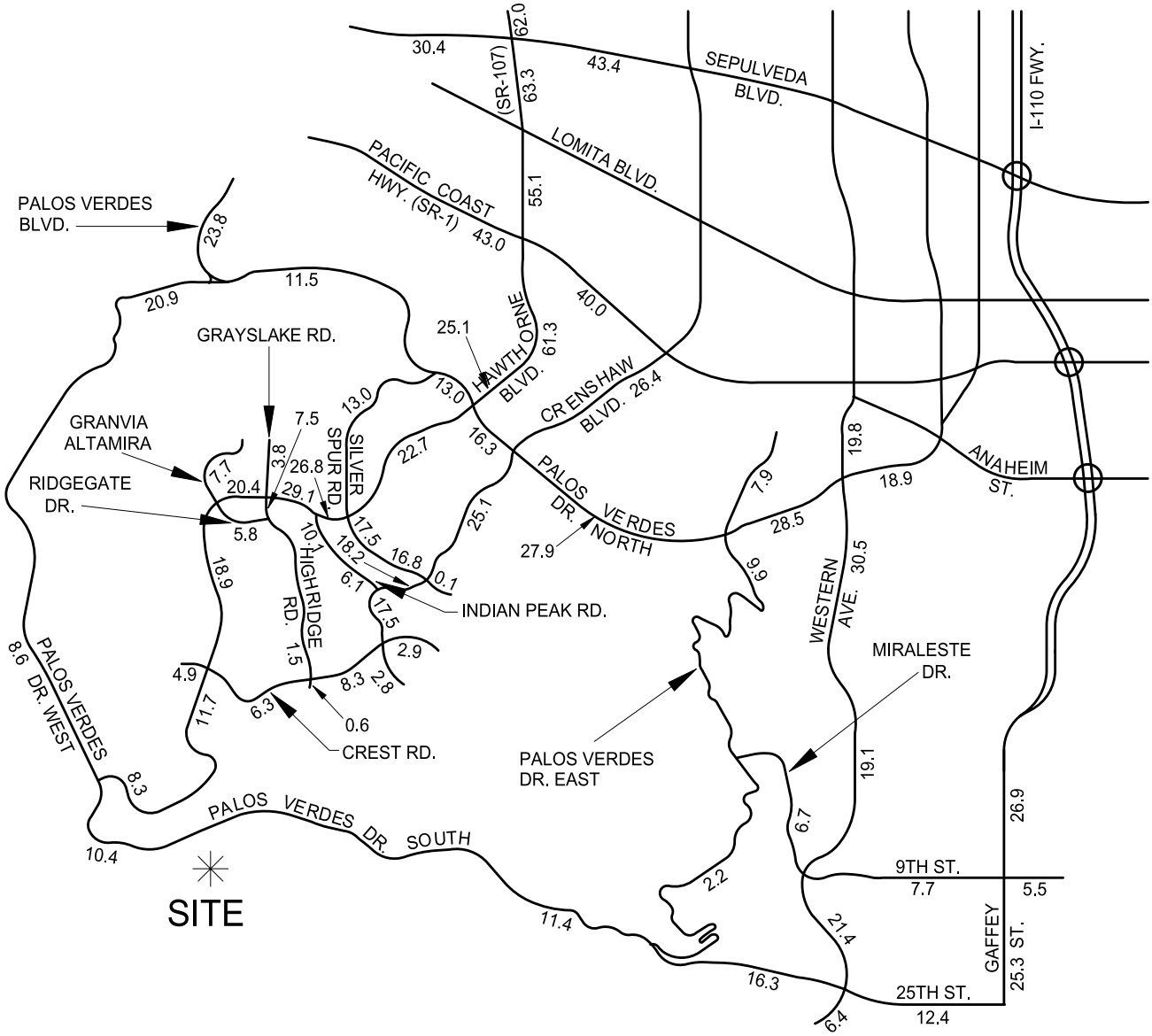
Silver Spur Road (NS) at:

- Hawthorne Boulevard (EW)

Hawthorne Boulevard (NS) at:

- Sepulveda Boulevard (EW)
- Pacific Coast Highway (EW)
- Palos Verdes Drive North (EW)

Exhibit 5.12-2, Existing ADT



LEGEND:

10.4 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

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LONG POINT RESORT EIR

Existing Average Daily Traffic (ADT)

Exhibit 5.12-2

TABLE 5.12-1
INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Palos Verdes Blvd. (NS) at:																
• Palos Verdes Dr. West-North (EW)	0	1	0	1	1	0	0	0	0	0	0	1>>	0.87	0.77	D	C
• Palos Verdes Dr. West-South (EW)	0	1	1>>	0	1	0	0	0	0	1	0	0	0.84	0.83	D	D
• Palos Verdes Dr. West-East (EW)	0	1	0	0	1	1	1	0	0	0	0	0	0.35	0.49	A	A
Palos Verdes Dr. West (NS) at:																
• Hawthorne Blvd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.50	0.45	A	A
Granvia Altamina (NS) at:																
• Hawthorne Blvd. (EW)	0	1	1	1.5	0.5	1	1	2	1	1	2	1	0.58	0.57	A	A
Highridge Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	1	1>	0	1	0	1	2	1	1	2	1	0.82	0.66	D	B
• Crest Rd. (EW)	0	1	0	1	1	0	1	2	0	1	2	0	0.28	0.27	A	A
Indian Peak Rd. (NS) at:																
• Hawthorne Blvd. (EW)	2	0	1>	0	0	0	0	2	1>	1	2	0	0.66	0.68	B	B
• Crenshaw Blvd. (EW)	0	0	0	1	0	1>	1	2	0	0	2	1	0.57	0.55	A	A
Silver Spur Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1>	1	2	0	1	2	1	1	2	1	0.87	0.98	D	E
• Crenshaw Blvd. (EW)	0	1	0	1.5	0.5	1>	1	2	0	1	2	1	0.68	0.69	B	B
Hawthorne Blvd. (NS) at:																
• Sepulveda Blvd. (EW)	2	4	1>>	2	4	1>>	2	3	0	2	3	0	0.89	1.06	D	F
• Pacific Coast Hwy. (EW)	2	3	0	2	3	1>>	1	3	0	1	3	0	0.91	1.45	E	F
• Palos Verdes Dr. North (EW)	1	2	1>>	1	2	1	1.5	1.5	0	1	1	1	0.92	0.85	E	D
• Crest Rd. (EW)	1	2	1	1	2	1	1	1	0	1	1	1	0.45	0.43	A	A
Crenshaw Blvd. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	2	2	0	2	2	0	0.79	0.67	C	B
• Crest Rd. (EW)	1	1	1	1	1.5	1.5	1.5	0.5	1>>	0	1	1	0.48	0.38	A	A
Palos Verdes Dr. East (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	2	1	1	2	1>>	0.74	0.70	C	B
• Palos Verdes Dr. South (EW)	0	0	0	1	0	1	1	1	0	0	1	0	0.47	0.49	A	A
Western Ave. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	3	1	1	3	1	0.87	0.93	D	E
• 9th St. (EW)	1	2	1	1	2	1	1	2	1	1	2	1	0.49	0.57	A	A
• 25th St. (EW)	1	2	1	1	2	1>	1	2	1	1	2	0	0.59	0.69	A	B
Gaffey St. (NS) at:																
• 9th St. (EW)	1	2	1	1	2	1	1	1	1	1	1	0	0.75	0.79	C	C

Notes:

1. When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

   L = Left; T = Through; R = Right; > = Right Turn Overlap;>> = Free Right Turn

2. Intersection Capacity Utilization (ICU).

3. Level of Service (LOS).

Western Avenue (NS) at:

- Palos Verdes Drive North (EW)

IMPACTS

Significance Criteria

The traffic issues related to the proposed land use and development have been evaluated in the context of CEQA and the Rancho Palos Verdes General Plan Circulation Element. The City of Rancho Palos Verdes is the lead agency responsible for preparation of the traffic impact analysis, in accordance with both CEQA and CMP authorizing legislation.

A transportation impact on an intersection shall be deemed "significant" if the project related increase in the volume to capacity ratio equals or exceeds the threshold shown below (Table 5.12-2, *Significant Transportation Impact*):

TABLE 5.12-2
SIGNIFICANT TRANSPORTATION IMPACT

Level of Service (With Project)	Final V/C Ratio	Project-related Increase in V/C
C	> 0.710 - 0.800	0.04 or more
D	> 0.810 - 0.900	0.02 or more
E, F	> 0.910 or more	0.01 or more

Environmental impact thresholds as indicated in Appendix G, *Initial Study Checklist*, of the CEQA Guidelines were also used as significance thresholds in this analysis. As such, a project would create a significant impact if it would cause one or more of the following to occur:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections) (refer to Impact Statement 5.12-1);

- Exceed, either individually or cumulatively, a LOS standard established by the County CMP agency for designated roads or highways (refer to Impact Statement 5.12-2).

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (refer to Section 10.0, *Effects Found Not To Be Significant*)

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (refer to Impact Statement 5.12-3);

- Result in inadequate emergency access (refer to Section 5.10, *Public Health and Safety*);

- Result in inadequate parking capacity (refer to Impact Statement 5.12-4); and/or

- Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) (refer to Section 5.13, *Recreation and Section 10, Effects Found Not To Be Significant*).

Impacts to traffic and circulation are analyzed below according to topic. Mitigation measures at the end of this Section directly correspond with the identified impact.

TRAFFIC GENERATION

5.12-1 *Project implementation may cause a significant increase in traffic when compared to the traffic capacity of the street system and may exceed an established LOS standard. Implementation of the specified mitigation measures would reduce impacts to a less than significant level.*

Trip Generation

Trip generation represents the amount of traffic which is produced or attracted to a development. The traffic generation for this Project has been estimated, based upon the specific land uses which have been planned for the proposed development. Trip generation rates are based upon the latest data collected by the Institute of Transportation Engineers (ITE). Trip generation rates utilized in this study are included in Table 5.12-3, *Trip Generation Rates*.

Both daily and peak hour trip generation for the proposed Project are shown in Table 5.12-4, *Project Trip Generation*. The proposed development is projected to generate approximately 6,263 trip-ends per day with 313 vehicles per hour during the AM peak hour and 499 vehicles per hour during the PM peak hour.

TABLE 5.12-3

TRIP GENERATION RATES

Land Use	Units1	Peak Hour				Daily
		A.M.		P.M.		
		In	Out	In	Out	
Hotel/Meeting Facility[2]	RM	0.22	0.09	0.18	0.24	6.00[3]
Casitas Units[2]	RM	0.22	0.09	0.18	0.24	6.00[3]
Resort Villas[2]	RM	0.07	0.37	0.36	0.18	5.86
Retail Facilities[2]	TSF	1.87	1.19	5.21	5.64	121.09
Restaurants[2]	TSF	4.82	4.45	6.52	4.34	130.34
Health Spa/Fitness Center[2]	TSF	0.14	0.16	2.62	1.68	30.00[4]
Golf Course[2]	HOLE	1.75	0.47	1.21	1.53	35.74
Driving Range[5]	AC	1.47	0.63	3.15	3.15	70.00

[1] RM = Rooms
TSF = Thousand Square Feet
AC = Acres

[2] Source: Institute of Transportation Engineers (ITE), Trip Generation, Sixth Edition, 1997, Land Use Categories 330, 820, 832, 493, 430 and 230.

[3] Daily trip rates based upon Austin-Foust Associates, Resort Hotel Traffic Study (1986).

[4] Daily trip rate based upon San Diego Association of Governments (SANDAG), Traffic Generators, July 1998.

[5] Trip rates based upon San Diego Association of Governments (SANDAG), Traffic Generators, July 1998.

TABLE 5.12-4
PROJECT TRIP GENERATION

Land Use	Quantity	Units[1]	Peak Hour				Daily
			A.M.		P.M.		
			In	Out	In	Out	
Hotel/Meeting Facility	400	RM	88	36	72	96	2,400
Casitas Units	150	RM	33	14	27	36	900
Resort Villas	32	RM	2	12	12	6	188
Retail Facilities[2]	20.0	TSF	15	10	42	45	969
Restaurants[2]	22.5	TSF	43	40	59	39	1,173
Health Spa/Fitness Center[3]	22.0	TSF	1	1	17	11	198
Golf Course[4]	9	HOLES	7	2	5	6	145
Driving Range[4]	9	AC	6	3	13	13	290
TOTAL			**195**	**118**	**247**	**252**	**6,263**

[1] RM = Rooms
TSF = Thousand Square Feet
AC = Acres

[2] Based on marketing information provided by the Project team, the Project trip generation assumes 60% internal hotel use and 40% outside community use. It is assumed that a percentage of patrons within the hotel would use the other facilities on-site. The Project trip generation has been adjusted to account for only new trips associated with the Project. This internal use does not constitute a new Project trip, as the patron is already on-site.

[3] Based on marketing information provided by the Project team, the Project trip generation assumes 70% internal hotel use and 30% outside community use. It is assumed that a percentage of patrons within the hotel would use the other facilities on-site. The Project trip generation has been adjusted to account for only new trips associated with the Project. This internal use does not constitute a new Project trip, as the patron is already on-site.

[4] Based on marketing information provided by the Project team, the Project trip generation assumes 55% internal hotel use and 45% outside community use. It is assumed that a percentage of patrons within the hotel would use the other facilities on-site. The Project trip generation has been adjusted to account for only new trips associated with the Project. This internal use does not constitute a new Project trip, as the patron is already on-site.

Proposed Circulation

The vehicular/pedestrian circulation plan for the proposed Project, including access points, is illustrated in Exhibit 3-5, *Circulation Plan*. Proposed improvements are described as follows:

- Access to the Resort Hotel is proposed via Palos Verdes Drive South at the existing access to the former Marineland project, opposite the existing gated Crestmont Lane. A 4-lane divided entry is proposed to allow right and left turns onto Palos Verdes Drive South and allow right and left turns into the Resort Hotel.

- The proposed Resort Entry Drive consists of two 21-foot-wide lanes. Portions of the road (i.e., entry, arrival at intersections and entry courtyard arrival) are divided by a minimum 10-foot variable-width landscape median. A minium 10-foot-wide landscape parkway lines each side of the drive, with a pedestrian walk on the eastern side only.

- Access to the golf course and clubhouse is proposed via the Resort Entry Drive. The entrance to the clubhouse parking lot is situated along the east side of the Resort Entry Drive en-route to the Resort Hotel main guest entry court.

- Access to the practice facility is proposed off of Palos Verdes Drive West adjacent to an existing emergency access roadway to the Villa Capri townhouse development.

- Access to the golf maintenance facility is proposed from Palos Verdes Drive South via an access road to be aligned consistent with that of an existing unpaved dirt road.

- One golf cart tunnel crossing under Palos Verdes Drive South is proposed which would connect the RHA with the UPVA by a tunnel system under Palos Verdes Drive South. The Palos Verdes Drive South right-of-way is presently split at this location, with the westbound lanes approximately 15 feet above the eastbound lanes. The golf cart path would parallel the right-of-way for approximately 100 feet within the median between the east and westbound lanes, before tunneling under the westbound lanes of Palos Verdes Drive South. This crossing would provide an off-road connection between Holes 1 and 2, and between Holes 5 and 6 returning to the RHA and golf clubhouse. The location for this road crossing was selected

based upon adjacent topography and to provide symmetrical, natural-appearing slopes on either side of the roadway.[1]

Traffic Assignment

Trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, commercial and recreational opportunities and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing land uses and highways within the community and existing traffic volumes. It should also be noted that the resort hotel would provide directional assistance within promotional material that would affect patrons driving patterns for visiting the Project site.

Trip distribution for this study has been based upon near-term conditions, based upon those highway facilities which are in place. The trip distribution pattern for the Project is graphically depicted on Exhibit 5.12-3, *Project Trip Distribution*.

The assignment of traffic from the site to the adjoining roadway system has been based upon the site's trip generation, trip distributions, existing arterial highway and local street systems, which would be in place by the time of occupancy of the Project site. Based on the identified Project trip generation and distribution, Project related ADT volumes are shown on Exhibit 5.12-4, *Project ADT*.

Existing Plus Ambient Growth Traffic Conditions (2010)

Method of Projection. To assess future (Year 2010) traffic conditions, existing traffic is combined with ambient growth. To account for ambient growth on roadways, future traffic volumes have been calculated based on a 0.5 percent annual growth rate of existing traffic volumes to the Year 2010. Ambient growth has been based upon a growth factor obtained from the latest 1997 Congestion Management Program (CMP) for Los Angeles County prepared by the Los Angeles County Metropolitan Transportation Authority (MTA), as follows:

1992 Factor: 1.000 (Base Year)
2010 Factor: 1.097
Approximate Annual Growth Rate: 0.5%

This analysis follows the County of Los Angeles Traffic Study Guidelines and is intended to be consistent with traffic impact analysis guidelines set forth in the CMP prepared by the Los Angeles County MTA.

[1]Long Point Resort Permit Documentation, June 23, 2000, Page 5-20.

Average Daily Traffic. Once the ambient growth related traffic is added to existing volumes in the study area, the traffic impact can be assessed. Exhibit 5.12-5, *Existing Plus Ambient Growth ADT*, shows ADT volumes for existing plus ambient growth traffic conditions. A traffic signal is projected to be warranted at the Crenshaw Boulevard (NS) at Crest Road (EW) intersection for existing plus ambient growth traffic conditions.

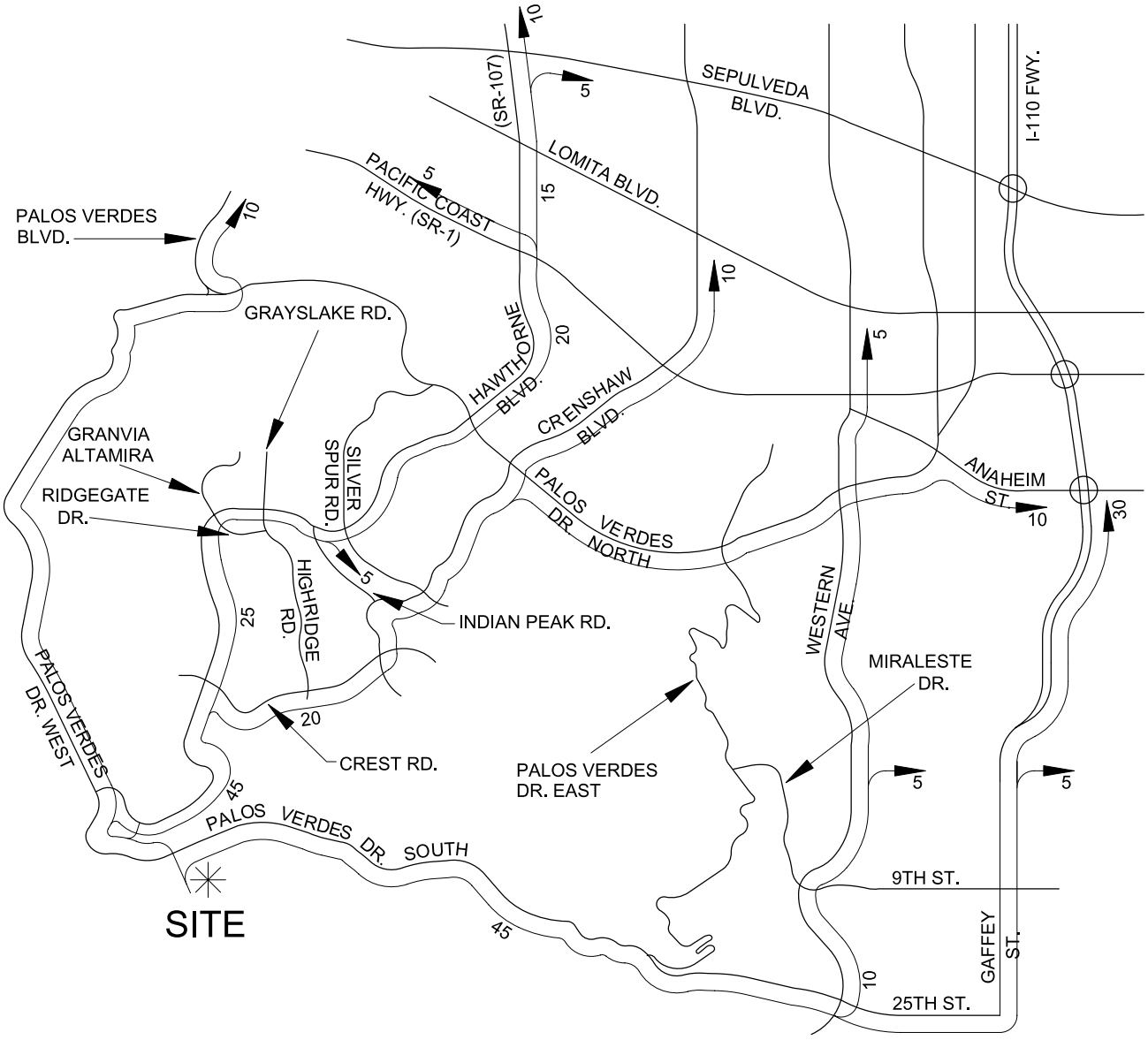
Refer to the *Signal Warrant Analysis* discussion for further discussion regarding this signal.

Intersection Analysis. The ICU methodology has been utilized to evaluate intersection levels of service. Intersection levels of service for existing plus ambient growth traffic conditions have been calculated and are shown in Table 5.12-5, *Intersection Analysis For Existing Plus Ambient Growth Conditions*. Table 5.12-5 shows ICU calculations based on the existing geometrics at the study area intersections. Existing plus ambient growth AM and PM peak hour turning movement volumes are shown on Exhibits L and M of Appendix 15.12, respectively. As shown in Table 5.12-5, the study area intersections are projected to operate at Level of Service "D" or better during the peak hours, except for the following study area intersections which are projected to operate at Level of Service "E" or "F" during the peak hours:

- Palos Verdes Boulevard (NS) at:
  - Palos Verdes Drive West – North (EW);
  - Palos Verdes Drive West - South (EW);
- Silver Spur Road (NS) at Hawthorne Boulevard (EW);
- Hawthorne Boulevard (NS) at:
  - Sepulveda Boulevard (EW)
  - Pacific Coast Highway (EW)
  - Palos Verdes Drive North (EW); and
- Western Avenue (NS) at Palos Verdes Drive North (EW).

Existing Plus Ambient Growth Plus Proposed Project Traffic Conditions

Average Daily Traffic. Once the ambient growth and proposed Project traffic is assigned to the street network and added to existing volumes in the study area, the traffic impact can be assessed. Exhibit 5.12-6, *Existing Plus Ambient Growth Plus Proposed Project ADT*, shows ADT volumes for existing plus ambient growth plus proposed Project traffic conditions.



LEGEND:

10 = PERCENT TO/FROM PROJECT

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

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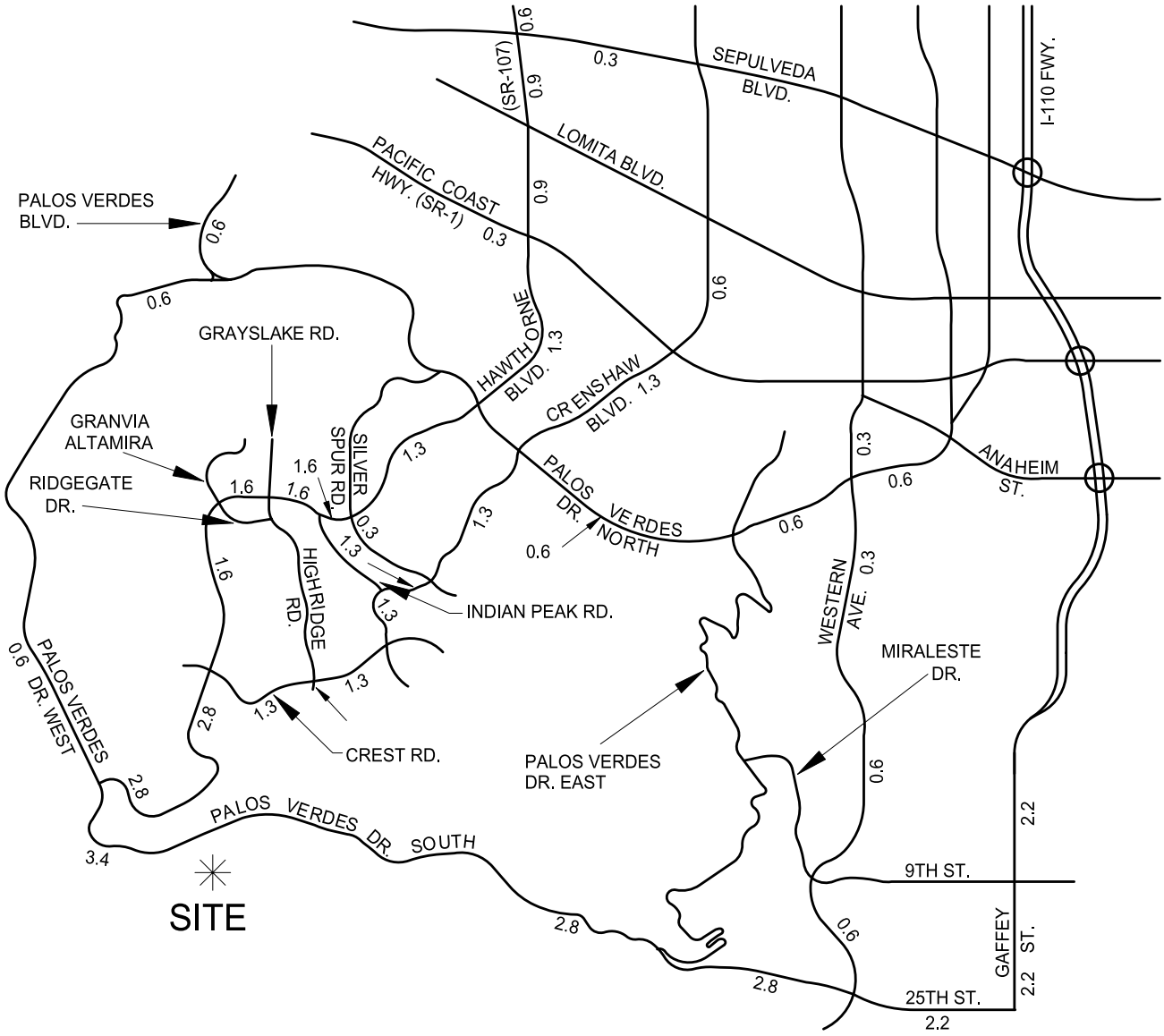
Project Trip Distribution

Exhibit 5.12-3



LEGEND:

3.4 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

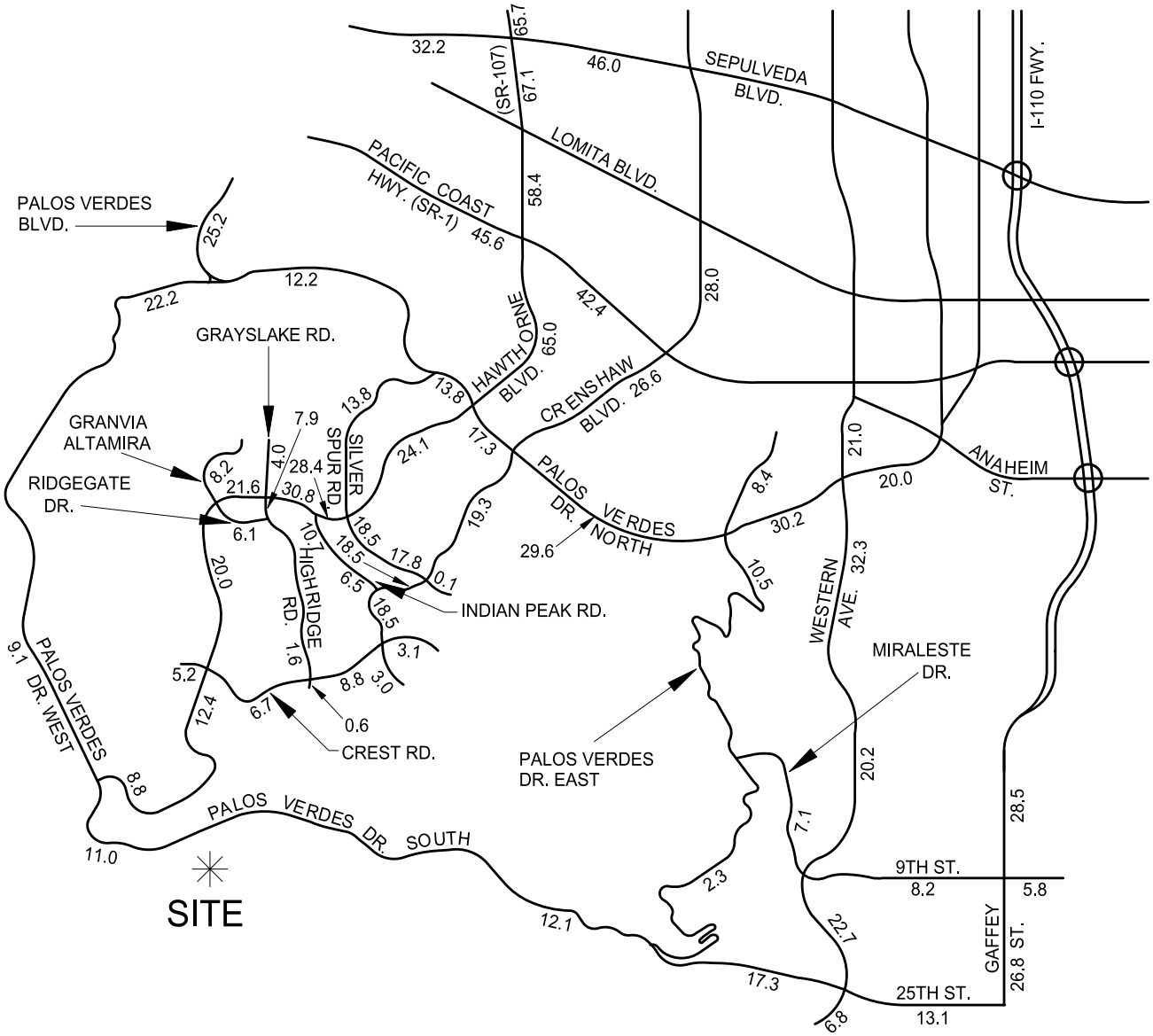
SOURCE: RKJK & ASSOCIATES, INC.

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Project Average Daily Traffic (ADT)

Exhibit 5.12-4



LEGEND:

11.0 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Existing Plus Ambient Growth ADT

Exhibit 5.12-5

TABLE 5.12-5
INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH CONDITIONS

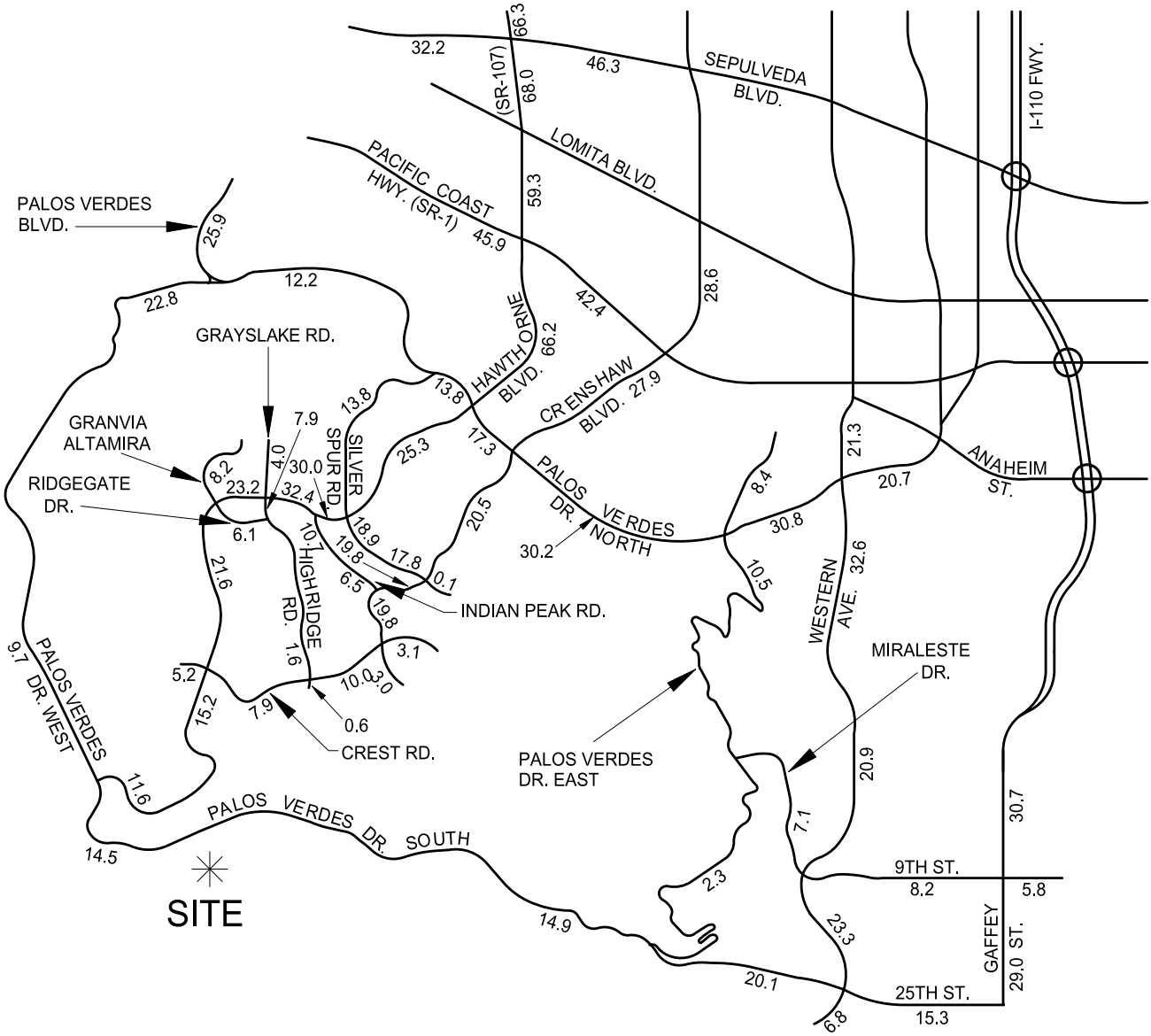
Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Palos Verdes Blvd. (NS) at:																
• Palos Verdes Dr. West-North (EW)	0	1	0	1	1	0	0	0	0	0	0	1>>	0.91	0.81	E	D
• Palos Verdes Dr. West-South (EW)	0	1	1>>	0	1	0	0	0	0	1	0	0	0.88	0.87	D	D
• Palos Verdes Dr. West-East (EW)	0	1	0	0	1	1	1	0	0	0	0	0	0.36	0.51	A	A
Palos Verdes Dr. West (NS) at:																
• Hawthorne Blvd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.52	0.47	A	A
Granvia Altamina (NS) at:																
• Hawthorne Blvd. (EW)	0	1	1	1.5	0.5	1	1	2	1	1	2	1	0.61	0.60	B	A
Highridge Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	1	1>	0	1	0	1	2	1	1	2	1	0.85	0.69	D	B
• Crest Rd. (EW)	0	1	0	1	1	0	1	2	0	1	2	0	0.28	0.28	A	A
Indian Peak Rd. (NS) at:																
• Hawthorne Blvd. (EW)	2	0	1>	0	0	0	0	2	1>	1	2	0	0.69	0.72	B	C
• Crenshaw Blvd. (EW)	0	0	0	1	0	1>	1	2	0	0	2	1	0.60	0.58	A	A
Silver Spur Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1>	1	2	0	1	2	1	1	2	1	0.91	1.02	E	F
• Crenshaw Blvd. (EW)	0	1	0	1.5	0.5	1>	1	2	0	1	2	1	0.71	0.73	C	C
Hawthorne Blvd. (NS) at:																
• Sepulveda Blvd. (EW)	2	4	1>>	2	4	1>>	2	3	0	2	3	0	0.93	1.12	E	F
• Pacific Coast Hwy. (EW)	2	3	0	2	3	1>>	1	3	0	1	3	0	0.95	1.52	E	F
• Palos Verdes Dr. North (EW)	1	2	1>>	1	2	1	1.5	1.5	0	1	1	1	0.96	0.89	E	D
• Crest Rd. (EW)	1	2	1	1	2	1	1	1	0	1	1	1	0.46	0.46	A	A
Crenshaw Blvd. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	2	2	0	2	2	0	0.83	0.71	D	C
• Crest Rd. (EW)	1	1	1	1	1.5	1.5	1.5	0.5	1>>	0	1	1	0.51	0.39	A	A
Palos Verdes Dr. East (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	2	1	1	2	1>>	0.77	0.72	C	C
• Palos Verdes Dr. South (EW)	0	0	0	1	0	1	1	1	0	0	1	0	0.50	0.51	A	A
Western Ave. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	3	1	1	3	1	0.91	0.98	E	E
• 9th St. (EW)	1	2	1	1	2	1	1	2	1	1	2	1	0.50	0.58	A	A
• 25th St. (EW)	1	2	1	1	2	1>	1	2	1	1	2	0	0.61	0.72	B	C
Gaffey St. (NS) at:																
• 9th St. (EW)	1	2	1	1	2	1	1	1	1	1	1	0	0.80	0.82	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

[2] Intersection Capacity Utilization (ICU).

[3] Level of Service (LOS).



LEGEND:

14.5 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

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LONG POINT RESORT EIR

Existing Plus Ambient Growth Plus Proposed Project ADT

Exhibit 5.12-6

TABLE 5.12-6
INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS PROPOSED PROJECT CONDITIONS

Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Palos Verdes Blvd. (NS) at:																
• Palos Verdes Dr. West-North (EW)	0	1	0	1	1	0	0	0	0	0	0	1>>	0.92	0.82	E	D
• Palos Verdes Dr. West-South (EW)	0	1	1>>	0	1	0	0	0	0	1	0	0	0.89	0.89	D	D
• Palos Verdes Dr. West-East (EW)	0	1	0	0	1	1	1	0	0	0	0	0	0.36	0.51	A	A
Palos Verdes Dr. West (NS) at:																
• Hawthorne Blvd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.53	0.55	A	A
Granvia Altamina (NS) at:																
• Hawthorne Blvd. (EW)	0	1	1	1.5	0.5	1	1	2	1	1	2	1	0.62	0.62	B	B
Highridge Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	1	1>	0	1	0	1	2	1	1	2	1	0.86	0.71	D	C
• Crest Rd. (EW)	0	1	0	1	1	0	1	2	0	1	2	0	0.29	0.29	A	A
Indian Peak Rd. (NS) at:																
• Hawthorne Blvd. (EW)	2	0	1>	0	0	0	0	2	1>	1	2	0	0.70	0.74	B	C
• Crenshaw Blvd. (EW)	0	0	0	1	0	1>	1	2	0	0	2	1	0.61	0.60	B	A
Silver Spur Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1>	1	2	0	1	2	1	1	2	1	0.93	1.05	E	F
• Crenshaw Blvd. (EW)	0	1	0	1.5	0.5	1>	1	2	0	1	2	1	0.72	0.75	C	C
Hawthorne Blvd. (NS) at:																
• Sepulveda Blvd. (EW)	2	4	1>>	2	4	1>>	2	3	0	2	3	0	0.94	1.13	E	F
• Pacific Coast Hwy. (EW)	2	3	0	2	3	1>>	1	3	0	1	3	0	0.96	1.53	E	F
• Palos Verdes Dr. North (EW)	1	2	1>>	1	2	1	1.5	1.5	0	1	1	1	0.97	0.90	E	D
• Crest Rd. (EW)	1	2	1	1	2	1	1	1	0	1	1	1	0.49	0.50	A	A
Project Entrance (NS) at:																
• Palos Verdes Dr. South (EW)	1	0	1	0	0	0	0	2	0	1	2	0	0.35	0.47	A	A
Crenshaw Blvd. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	2	2	0	2	2	0	0.84	0.71	D	C
• Crest Rd. (EW)	1	1	1	1	1.5	1.5	1.5	0.5	1>>	0	1	1	0.52	0.41	A	A
Palos Verdes Dr. East (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	2	1	1	2	1>>	0.77	0.73	C	C
• Palos Verdes Dr. South (EW)	0	0	0	1	0	1	1	1	0	0	1	0	0.56	0.59	A	A
Western Ave. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	3	1	1	3	1	0.91	0.98	E	E
• 9th St. (EW)	1	2	1	1	2	1	1	2	1	1	2	1	0.51	0.59	A	A
• 25th St. (EW)	1	2	1	1	2	1>	1	2	1	1	2	0	0.64	0.77	B	C

TABLE 5.12-6
INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS PROPOSED PROJECT CONDITIONS (CONTINUED)

Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Gaffey St. (NS) at:																
• 9th St. (EW)	1	2	1	1	2	1	1	1	1	1	1	0	0.82	0.85	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

[2] Intersection Capacity Utilization (ICU).

[3] Level of Service (LOS).

A traffic signal is projected to be warranted at the Project Entrance (NS) at Palos Verdes Drive South (EW) intersection for existing plus ambient growth plus proposed Project traffic conditions Appendix E, *Traffic Signal Warrants*, of Appendix 15.12 details the methodology on which this conclusion is based. This analysis follows the County of Los Angeles Traffic Study Guidelines and is intended to be consistent with traffic impact analysis guidelines set forth in the CMP prepared by the Los Angeles County MTA.

Intersection Analysis. For purposes of this calculation, the "Final V/C Ratio" shall mean the future V/C ratio at an intersection considering impacts with Project and ambient growth but without proposed traffic mitigation. "Project-Related Increase in V/C" shall mean the change in V/C between the future V/C ratio with Project and ambient growth but without proposed traffic mitigation and the future V/C ratio with ambient growth but without Project and proposed traffic mitigation.

The ICU methodology has been utilized to evaluate intersection levels of service. Intersection levels of service for existing plus ambient growth plus proposed Project traffic conditions have been calculated and are shown in Table 5.12-6, *Intersection Analysis for Existing Plus Ambient Growth Plus Proposed Project Conditions*. Table 5.12-6 shows ICU calculations based on the existing geometrics at the study area intersections. Existing plus ambient growth plus proposed Project AM and PM peak hour turning movement volumes are shown on Exhibits O and P of Appendix 15.12, respectively. As shown in Table 5.12-6, the study area intersections are projected to operate at Level of Service "D" or better during the peak hours, except for the following study area intersections which operate at Level of Service "E" or "F" during the peak hours:

- Palos Verdes Boulevard (NS) at:
  - Palos Verdes Drive West – North (EW);
  - Palos Verdes Drive West - South (EW);
- Silver Spur Road (NS) at Hawthorne Boulevard (EW);
- Hawthorne Boulevard (NS) at:
  - Sepulveda Boulevard (EW)
  - Pacific Coast Highway (EW)
  - Palos Verdes Drive North (EW); and
- Western Avenue (NS) at Palos Verdes Drive North (EW).

Existing Plus Ambient Growth Plus Other Development Cumulative Traffic Conditions

Method of Projection. Based on an analysis of trends in traffic growth in the study area, an ambient growth factor of 0.5 percent per year was used to the Year 2010. This growth factor accounts for increases in traffic resulting from traffic growth from outside the study area. This growth factor, compounded annually, was applied to the existing traffic volumes to develop an estimate of future traffic volumes.

Also included in the future year analyses were other development proposed within the study area (see Exhibit 4.1, *Cumulative Projects Location Map*). Information regarding potential other development was obtained from previous traffic studies in the study area and City of Rancho Palos Verdes staff.

Both daily and peak hour trip generation for the other development are shown in Table 5.12-7, *Other Development Trip Generation*. The other development is projected to generate approximately 6,270 trip-ends per day with 356 vehicles per hour during the AM peak hour and 600 vehicles per hour during the PM peak hour.

The trip distributions for the other development are illustrated on Exhibits R to AA of Appendix 15.12. Based on the other development trip generation and distributions, other development related ADT volumes are shown on Exhibit 5.12-7, *Other Development ADT*. Other development AM and PM peak hour intersection turning movement volumes are shown on Exhibits CC and DD of Appendix 15.12, respectively.

Average Daily Traffic. Once the ambient growth and other development traffic is assigned to the street network and added to existing volumes in the study area, the traffic impact can be assessed. Exhibit 5.12-8, *Existing Plus Ambient Growth Plus Other Development ADT*, shows ADT volumes for existing plus ambient growth plus other development traffic conditions. A traffic signal is projected to be warranted at the Palos Verdes Drive East (NS) at Palos Verdes Drive South (EW) intersection for existing plus ambient growth plus other development traffic conditions (refer to Appendix E of Appendix 15,12).

Intersection Analysis. For purposes of this calculation, the “Final V/C Ratio” shall mean the future V/C ratio at an intersection considering impacts with Project, ambient and related project growth but without proposed traffic mitigation. “Project-Related Increase in V/C” shall mean the change in V/C between the future V/C ratio with Project, ambient and related project growth but without proposed traffic mitigation and the future V/C ratio with ambient and related project growth but without Project and proposed traffic mitigation.

The ICU methodology has been utilized to evaluate intersection levels of service. Intersection levels of service for existing plus ambient growth plus other development traffic conditions have been calculated and are shown in Table 5.12-8, *Intersection Analysis For Existing Plus Ambient Growth Plus Other Development Conditions*. Table 5.12-8 shows ICU calculations based on the existing geometrics at the study area intersections. Existing plus ambient growth plus other development AM and PM peak hour turning movement volumes are shown on Exhibits FF and GG of Appendix 15.12, *Traffic Impact Analysis*, respectively. As shown in Table 5.12-8, the study area intersections are projected to operate at Level of Service "D" or better during the peak hours, except for the following study

area intersections which operate at Level of Service “E” or "F" during the peak hours:

- Palos Verdes Boulevard (NS) at:
  - Palos Verdes Drive West – North (EW);
  - Palos Verdes Drive West - South (EW);
- Silver Spur Road (NS) at Hawthorne Boulevard (EW);
- Hawthorne Boulevard (NS) at:
  - Sepulveda Boulevard (EW)
  - Pacific Coast Highway (EW)
  - Palos Verdes Drive North (EW); and
- Western Avenue (NS) at Palos Verdes Drive North (EW).

Existing Plus Ambient Growth Plus Proposed Project Plus Other Development Cumulative Traffic Conditions

Average Daily Traffic. Once the ambient growth, proposed Project and other development traffic is assigned to the street network and added to existing volumes in the study area, the traffic impact can be assessed. Exhibit 5.12-9, *Existing Plus Ambient Growth Plus Proposed Project Plus Other Development ADT*, shows ADT volumes for existing plus ambient growth plus proposed Project plus other development traffic conditions.

Intersection Analysis. The ICU methodology has been utilized to evaluate intersection levels of service. Intersection levels of service for existing plus ambient growth plus proposed Project plus other development traffic conditions have been calculated and are shown in Table 5.12-9, *Intersection Analysis for Existing Plus Ambient Growth Plus Proposed Project Plus Other Development Conditions*. Table 5.12-9 shows ICU calculations based on the existing geometrics at the study area intersections. Existing plus ambient growth plus proposed Project plus other development AM and PM peak hour turning movement volumes are shown on Exhibits II and JJ of Appendix 15.12, respectively. As shown in Table 5.12-9, the study area intersections are projected to operate at Level of Service “D” or better during the peak hours, except for the following study area intersections which operate at Level of Service “E” or “F” during the peak hours:

- Palos Verdes Boulevard (NS) at:
  - Palos Verdes Drive West - North (EW)
  - Palos Verdes Drive West - South (EW)

TABLE 5.12-7
OTHER DEVELOPMENT TRIP GENERATION

Location Number	Project	Cross Streets	Peak Hour				Daily
			AM		PM		
			In	Out	In	Out	
1	Ocean Trails[1]	Palos Verdes Drive South/ West of Shoreline Park	47	52	73	56	1,399
2	Subregion 1[2]	Palos Verdes Drive West/ Hawthorne Blvd.	15	44	51	28	756
3	Seabreeze[3]	Crest Rd./Highridge Rd.	12	35	41	23	603
4	Point View[4]	Palos Verdes Dr. South	18	52	60	33	890
5	Golden Cove Center Rehabilitation[5]	Palos Verdes Dr. West/ Hawthorne Blvd.	13	8	39	43	891
6	VTTM 52666[6]	Palos Verdes Dr. West/ Alida Pl.	2	7	8	5	124
7	Marriot Lifecare Facility[7]	Crestridge Rd./ Crenshaw Blvd.	5	2	12	9	262
8	Toso Corp. Com. Development[8]	Western Ave./ Summerland St.	19	12	49	53	1,152
9	Point Vicente Interpretive Center[9]	Palos Verde Dr. West	6	3	4	9	170
10	Wayfarers Chapel[10]	Palos Verde Dr. West	3	1	1	3	23
TOTAL			**140**	**216**	**338**	**262**	**6,270**

[1] Ocean Trail consists of 75 single-family residential dwelling units, 4 affordable residential dwelling units units and an 18 hole golf course.

[2] Subregion 1 consists of 79 single-family residential dwelling units.

[3] Seabreeze consists of 63 single-family residential dwelling units.

[4] Point View consists of 93 single-family residential dwelling units.

[5] Golden Cove Center rehabilitation consists of 12,600 square feet of new commercial space within an existing 77,550 square foot shopping center.

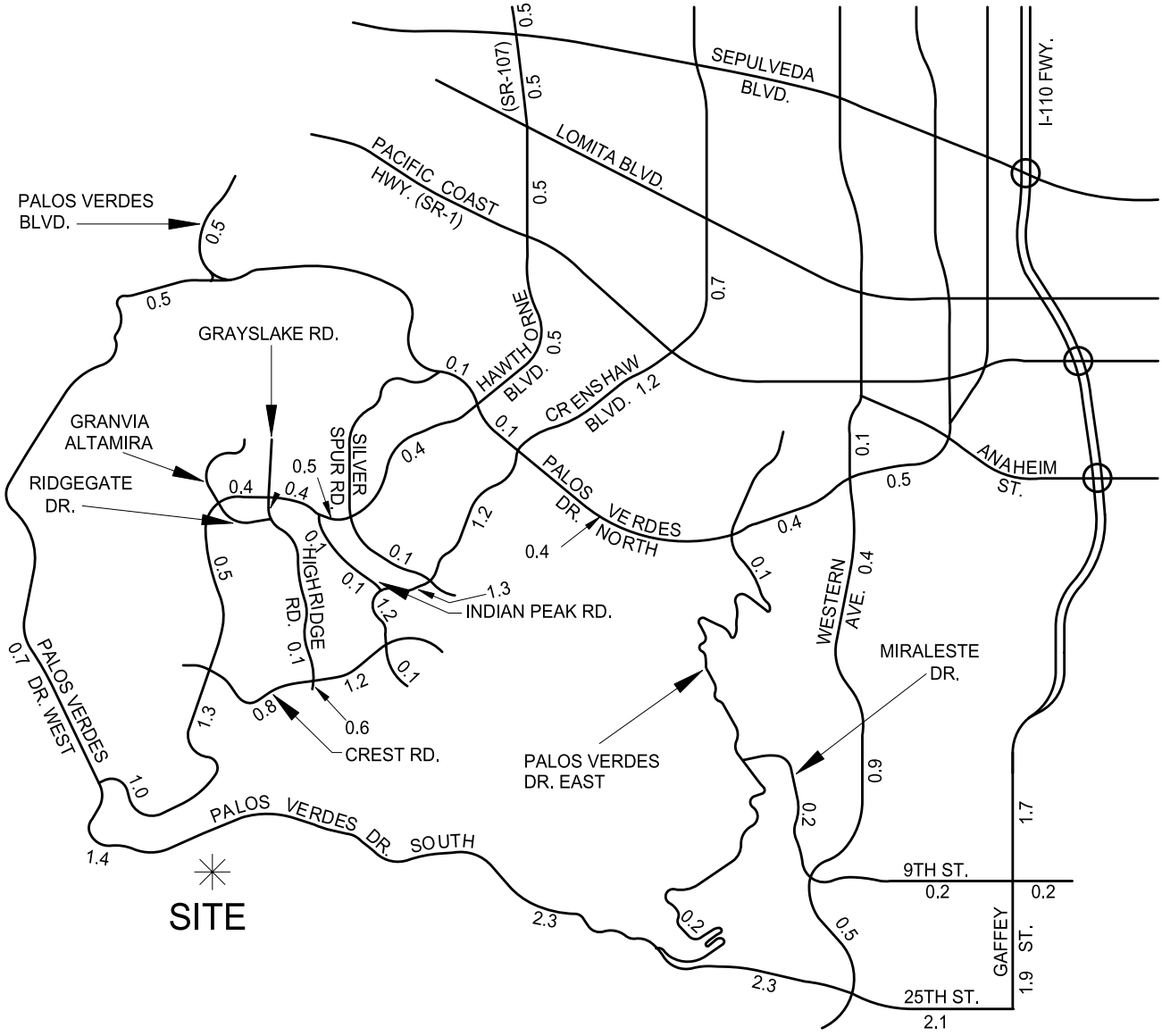
[6] VTTM 52666 consists of 13 single-family residential dwelling units.

[7] Marriot Lifecare facility consists of 122 rooms (126 beds).

[8] Toso Corp. commercial development consists of a 6,300 square foot commercial center.

[9] Point Vicente Interpretive Center consists of the expansion of the existing 2,309 square foot facility to a 9,746 square foot facility.

[10] Wayfarers Chapel consists of moving and reconstructing a 2,000 square foot office.



LEGEND:

1.4 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

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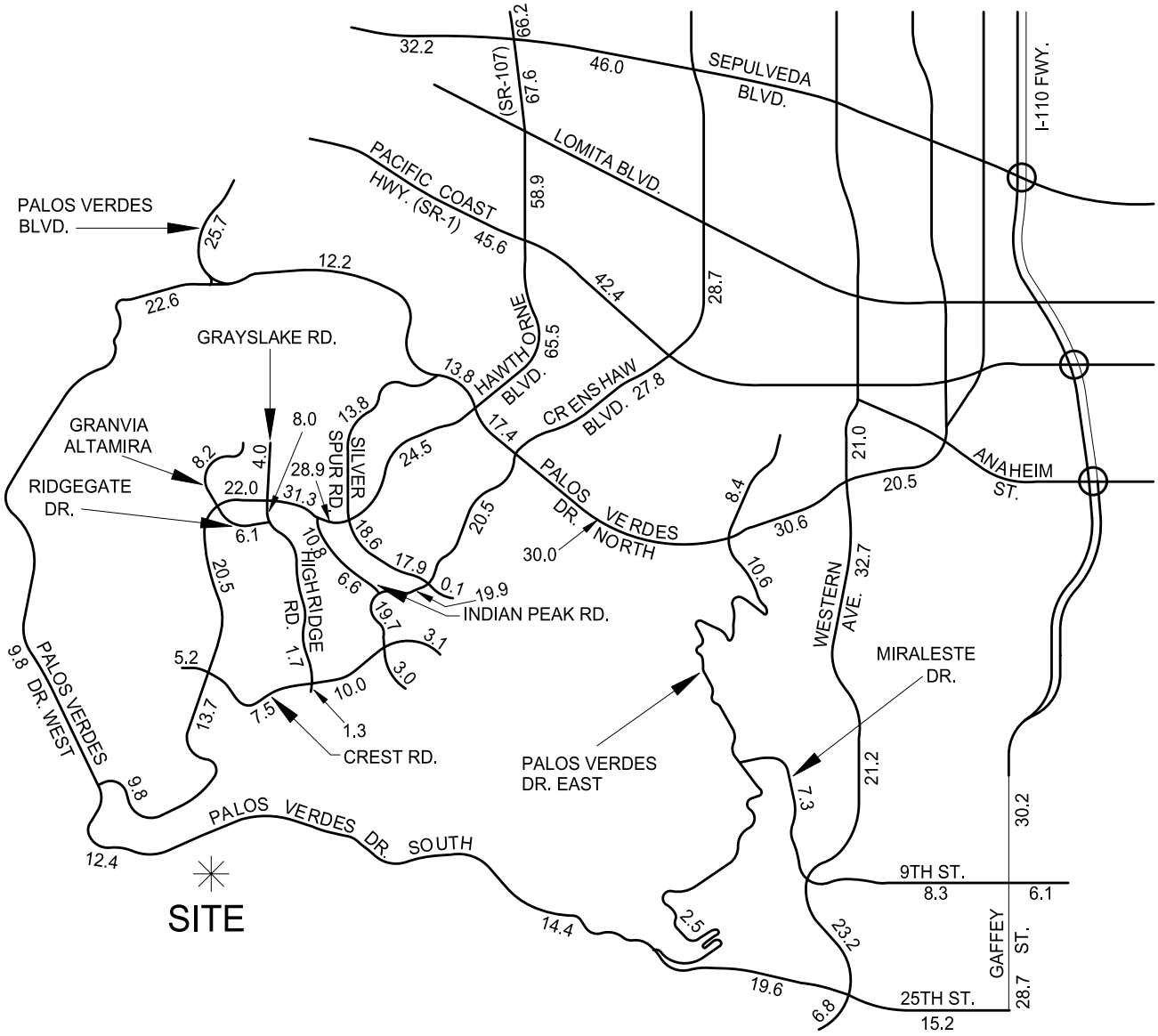
Other Development ADT

Exhibit 5.12-7



LEGEND:

12.4 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

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LONG POINT RESORT EIR

Existing Plus Ambient Growth Plus Other Development ADT

Exhibit 5.12-8

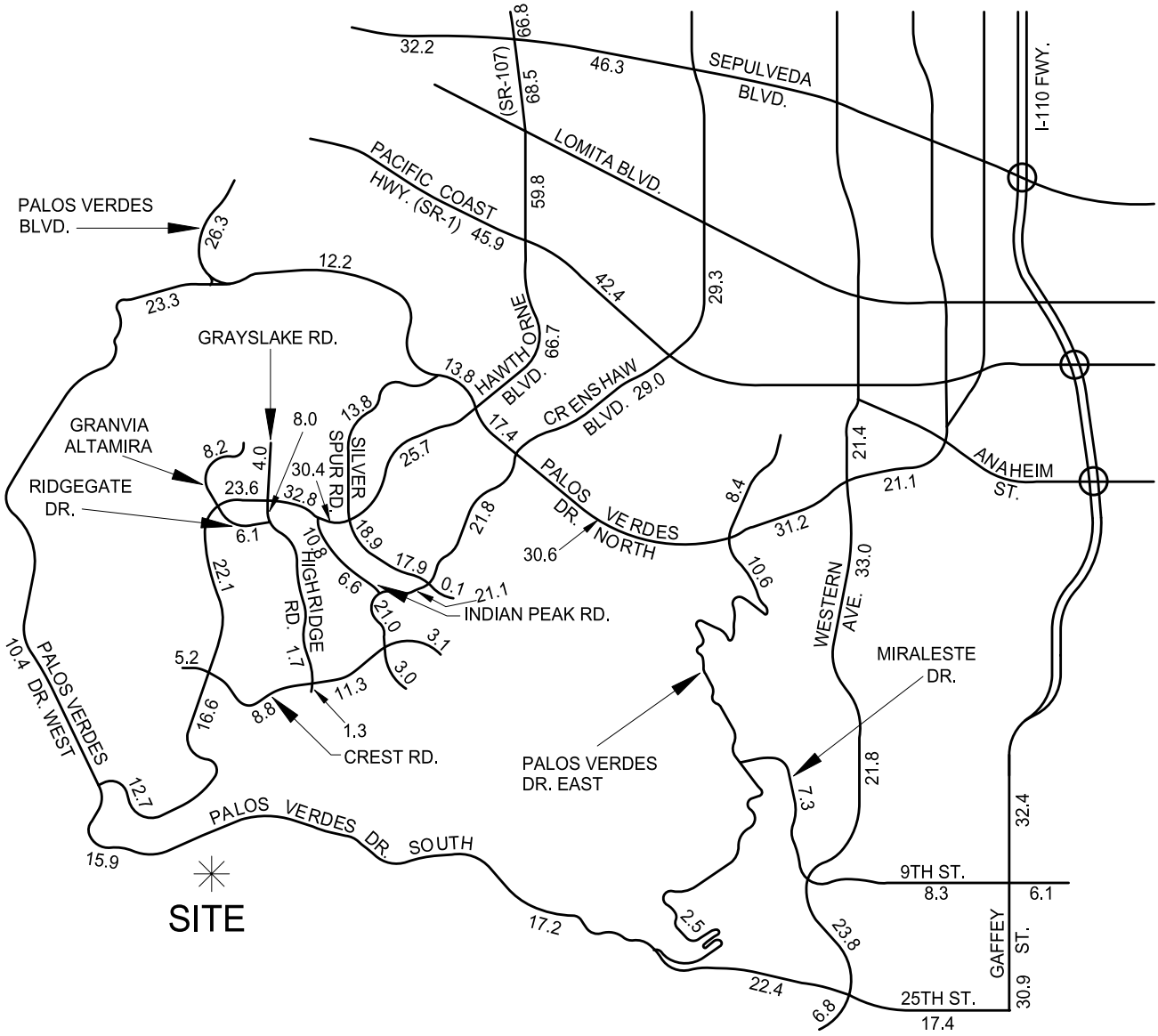
TABLE 5.12-8
INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS OTHER DEVELOPMENT CONDITIONS

Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Palos Verdes Blvd. (NS) at:																
• Palos Verdes Dr. West-North (EW)	0	1	0	1	1	0	0	0	0	0	0	1>>	0.93	0.82	E	D
• Palos Verdes Dr. West-South (EW)	0	1	1>>	0	1	0	0	0	0	1	0	0	0.90	0.89	D	D
• Palos Verdes Dr. West-East (EW)	0	1	0	0	1	1	1	0	0	0	0	0	0.36	0.51	A	A
Palos Verdes Dr. West (NS) at:																
• Hawthorne Blvd. (EW)	0	2	1	1	2	0	0	0	0	1	0	1	0.56	0.52	A	A
Granvia Altamina (NS) at:																
• Hawthorne Blvd. (EW)	0	1	1	1.5	0.5	1	1	2	1	1	2	1	0.61	0.61	B	B
Highridge Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	1	1>	0	1	0	1	2	1	1	2	1	0.86	0.71	D	C
• Crest Rd. (EW)	0	1	0	1	1	0	1	2	0	1	2	0	0.33	0.30	A	A
Indian Peak Rd. (NS) at:																
• Hawthorne Blvd. (EW)	2	0	1>	0	0	0	0	2	1>	1	2	0	0.70	0.73	B	C
• Crenshaw Blvd. (EW)	0	0	0	1	0	1>	1	2	0	0	2	1	0.62	0.60	B	A
Silver Spur Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1>	1	2	0	1	2	1	1	2	1	0.92	1.03	E	F
• Crenshaw Blvd. (EW)	0	1	0	1.5	0.5	1>	1	2	0	1	2	1	0.73	0.76	C	C
Hawthorne Blvd. (NS) at:																
• Sepulveda Blvd. (EW)	2	4	1>>	2	4	1>>	2	3	0	2	3	0	0.94	1.13	E	F
• Pacific Coast Hwy. (EW)	2	3	0	2	3	1>>	1	3	0	1	3	0	0.96	1.53	E	F
• Palos Verdes Dr. North (EW)	1	2	1>>	1	2	1	1.5	1.5	0	1	1	1	0.97	0.89	E	D
• Crest Rd. (EW)	1	2	1	1	2	1	1	1	0	1	1	1	0.47	0.49	A	A
Crenshaw Blvd. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	2	2	0	2	2	0	0.85	0.72	D	C
• Crest Rd. (EW)	1	1	1	1	1.5	1.5	1.5	0.5	1>>	0	1	1	0.53	0.41	A	A
Palos Verdes Dr. East (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	2	1	1	2	1>>	0.77	0.73	C	C
• Palos Verdes Dr. South (EW)	0	0	0	1	0	1	1	1	0	0	1	0	0.54	0.59	A	A
Western Ave. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	3	1	1	3	1	0.91	0.98	E	E
• 9th St. (EW)	1	2	1	1	2	1	1	2	1	1	2	1	0.51	0.59	A	A
• 25th St. (EW)	1	2	1	1	2	1>	1	2	1	1	2	0	0.63	0.77	B	C
Gaffey St. (NS) at:																
• 9th St. (EW)	1	2	1	1	2	1	1	1	1	1	1	0	0.83	0.85	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

[2] Intersection Capacity Utilization (ICU).

[3] Level of Service (LOS).



LEGEND:

15.7 = VEHICLES PER DAY (1000'S)

NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Existing Plus Ambient Growth Plus Proposed Project Plus Other Development ADT

Exhibit 5.12-9

TABLE 5.12-9
INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT GROWTH PLUS PROPOSED PROJECT PLUS OTHER DEVELOPMENT CONDITIONS

Intersection	Intersection Approach Lanes[1]												ICU[2]		LOS[3]	
	Northbound			Southbound			Eastbound			Westbound						
	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Palos Verdes Blvd. (NS) at:																
• Palos Verdes Dr. West-North (EW)	0	1	0	1	1	0	0	0	0	0	0	1>>	0.93	0.83	E	D
• Palos Verdes Dr. West-South (EW)	0	1	1>>	0	1	0	0	0	0	1	0	0	0.90	0.90	D	D
• Palos Verdes Dr. West-East (EW)	0	1	0	0	1	1	1	0	0	0	0	0	0.36	0.51	A	A
Palos Verdes Dr. West (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1	1	2	0	1	1	0	1	1	0	0.56	0.60	A	A
Granvia Altamina (NS) at:																
• Hawthorne Blvd. (EW)	0	1	1	1.5	0.5	1	1	2	1	1	2	1	0.62	0.63	B	B
Highridge Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	1	1>	0	1	0	1	2	1	1	2	1	0.87	0.73	D	C
• Crest Rd. (EW)	0	1	0	1	1	0	1	2	0	1	2	0	0.34	0.32	A	A
Indian Peak Rd. (NS) at:																
• Hawthorne Blvd. (EW)	2	0	1>	0	0	0	0	2	1>	1	2	0	0.71	0.74	C	C
• Crenshaw Blvd. (EW)	0	0	0	1	0	1>	1	2	0	0	2	1	0.63	0.62	B	B
Silver Spur Rd. (NS) at:																
• Hawthorne Blvd. (EW)	1	2	1>	1	2	0	1	2	1	1	2	1	0.94	1.06	E	F
• Crenshaw Blvd. (EW)	0	1	0	1.5	0.5	1>	1	2	0	1	2	1	0.74	0.77	C	C
Hawthorne Blvd. (NS) at:																
• Sepulveda Blvd. (EW)	2	4	1>>	2	4	1>>	2	3	0	2	3	0	0.94	1.13	E	F
• Pacific Coast Hwy. (EW)	2	3	0	2	3	1>>	1	3	0	1	3	0	0.96	1.53	E	F
• Palos Verdes Dr. North (EW)	1	2	1>>	1	2	1	1.5	1.5	0	1	1	1	0.97	0.91	E	E
• Crest Rd. (EW)	1	2	1	1	2	1	1	1	0	1	1	1	0.51	0.54	A	A
Project Entrance (NS) at:																
• Palos Verdes Dr. South (EW)	1	0	1	0	0	0	0	2	0	1	2	0	0.36	0.49	A	A
Crenshaw Blvd. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	2	2	0	2	2	0	0.85	0.73	D	C
• Crest Rd. (EW)	1	1	1	1	1.5	1.5	1.5	0.5	1>>	0	1	1	0.54	0.43	A	A
Palos Verdes Dr. East (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	2	1	1	2	1>>	0.78	0.74	C	C
• Palos Verdes Dr. South (EW)	0	0	0	1	0	1	1	1	0	0	1	0	0.59	0.66	A	B
Western Ave. (NS) at:																
• Palos Verdes Dr. North (EW)	1	2	1	1	2	1	1	3	1	1	3	1	0.93	0.98	E	E
• 9th St. (EW)	1	2	1	1	2	1	1	2	1	1	2	1	0.51	0.60	A	A
• 25th St. (EW)	1	2	1	1	2	1>	1	2	1	1	2	0	0.66	0.81	B	D
Gaffey St. (NS) at:																
• 9th St. (EW)	1	2	1	1	2	1	1	1	1	1	1	0	0.84	0.88	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

[2] Intersection Capacity Utilization (ICU).

[3] Level of Service (LOS).

TABLE 5.12-10
PROJECT TRAFFIC CONTRIBUTION

Intersection	Peak Hour	Existing Plus Ambient Growth plus Other Development		Existing plus Ambient Growth plus Proposed Project Plus Other Development							
				Without Mitigation				With Mitigation			
		ICU[2]	LOS[3]	ICU[4]	LOS	Project Impact	Significant Impact	ICU	LOS	Project Impact	Significant Impact
Palos Verdes Blvd. (NS) at:											
• Palos Verdes Dr. West-North (EW)	AM	0.928	E	0.935	E	+ 0.007	NO				
	PM	0.820	D	0.835	D	+ 0.015	NO				
• Palos Verdes Dr. West-South (EW)	AM	0.893	D	0.900	D	+ 0.007	NO				
	PM	0.888	D	0.904	D	+ 0.016	NO				
• Palos Verdes Dr. West-East (EW)	AM	0.366	A	0.366	A	+ 0.000	NO				
	PM	0.508	A	0.508	A	+ 0.000	NO				
Palos Verdes Dr. West (NS) at:											
• Hawthorne Blvd. (EW)	AM	0.544	A	0.548	A	+ 0.004	NO				
	PM	0.517	A	0.595	A	+ 0.078	NO				
Granvia Altamira (NS) at:											
• Hawthorne Blvd. (EW)	AM	0.612	B	0.621	B	+ 0.009	NO				
	PM	0.605	B	0.624	B	+ 0.019	NO				
Highridge Rd. (NS) at:											
• Hawthorne Blvd. (EW)	AM	0.859	D	0.869	D	+ 0.010	NO				
	PM	0.697	B	0.717	C	+ 0.020	NO				
• Crest Rd. (EW)	AM	0.330	A	0.337	A	+ 0.007	NO				
	PM	0.303	A	0.319	A	+ 0.016	NO				
Indian Peak Rd. (NS) at:											
• Hawthorne Blvd. (EW)	AM	0.697	B	0.706	C	+ 0.009	NO				
	PM	0.729	C	0.748	C	+ 0.019	NO				
• Crenshaw Blvd. (EW)	AM	0.623	B	0.630	B	+ 0.007	NO				
	PM	0.606	B	0.621	B	+ 0.015	NO				
Silver Spur Rd. (NS) at:											
• Hawthorne Blvd. (EW)	AM	0.925	E	0.939	E	+ 0.014	YES	0.849	D	- 0.076	NO
	PM	1.033	F	1.055	F	+ 0.022	YES	0.872	D	- 0.161	NO
• Crenshaw Blvd. (EW)	AM	0.714	C	0.722	C	+ 0.008	NO				
	PM	0.746	C	0.762	C	+ 0.016	NO				
Hawthorne Blvd. (NS) at:											
• Sepulveda Blvd. (EW)[5]	AM	0.940	E	0.946	E	+ 0.006	NO				
	PM	1.127	F	1.135	F	+ 0.008	NO				
• Pacific Coast Hwy. (EW)[5]	AM	0.957	E	0.961	E	+ 0.004	NO				
	PM	1.527	F	1.537	F	+ 0.010	NO				
• Palos Verdes Dr. North (EW)	AM	0.974	E	0.981	E	+ 0.007	NO	0.976	E	- 0.105	NO
	PM	0.893	D	0.909	E	+ 0.016	YES	0.900	D	- 0.070	NO
• Crest Rd. (EW)	AM	0.483	A	0.515	A	+ 0.032	NO				
	PM	0.492	A	0.542	A	+ 0.050	NO				
Project Entrance (NS) at:											
• Palos Verdes Dr. South (EW)	AM	--	--	0.359	A	--	--				
	PM	--	--	0.484	A	--	--				
Crenshaw Blvd .(NS) at:											
• Palos Verdes Dr. North (EW)	AM	0.840	D	0.849	D	+ 0.009	NO				
	PM	0.724	C	0.741	C	+ 0.017	NO				
• Crest Rd. (EW)	AM	0.536	A	0.546	A	+ 0.010	NO				
	PM	0.406	A	0.427	A	+ 0.020	NO				

TABLE 5.12-10
PROJECT TRAFFIC CONTRIBUTION
(CONTINUED)

Intersection	Peak Hour	Existing Plus Ambient Growth plus Other Development		Existing plus Ambient Growth plus Proposed Project Plus Other Development							
				Without Mitigation				With Mitigation			
		ICU[2]	LOS[3]	ICU	LOS	Project Impact	Significant Impact	ICU	LOS	Project Impact	Significant Impact
	PM	0.736	C	0.744	C	+ 0.008	NO				
• Palos Verdes Dr. South (EW)	AM	0.534	A	0.589	A	+ 0.055	NO				
	PM	0.589	A	0.658	B	+ 0.069	NO				
Western Ave. (NS) at:											
• Palos Verdes Dr. North (EW)	AM	0.917	E	0.922	E	+ 0.005	NO				
	PM	0.984	E	0.988	E	+ 0.004	NO				
• 9th St. (EW)	AM	0.510	B	0.514	A	+ 0.004	NO				
	PM	0.601	B	0.609	B	+ 0.008	NO				
• 25th St. (EW)	AM	0.636	B	0.665	B	+ 0.029	NO	0.603	B	-0.033	NO
	PM	0.765	C	0.808	D	+ 0.043	YES	0.753	C	-0.012	NO
Gaffey St. (NS) at:											
• 9th St. (EW)[5]	AM	0.824	D	0.837	D	+ 0.013	NO				
	PM	0.856	D	0.882	D	+ 0.026	NO				

[1] ICU calculation worksheets are included in Appendix "J".

[2] Intersection Capacity Utilization (ICU).

[3] Level of Service (LOS).

[4] The ICU values may vary slightly when compared to Exhibit 5.10-9. This is due to the computer program rounding for two decimal points versus three decimal points for the computer printouts.

[5] Los Angeles County CMP Arterial Monitoring Intersection. The CMP defines a significant project impact as one that increases traffic demand on a CMP facility by 2% of capacity (change in January 27, 2001 V/C $0.02), causing or worsening LOS “F” (V/C $ 1.00).

- Silver Spur Road (NS) at Hawthorne Boulevard (EW);
- Hawthorne Boulevard (NS) at:
  - Sepulveda Boulevard (EW)
  - Pacific Coast Highway (EW)
  - Palos Verdes Drive North (EW)
- Western Avenue (NS) at Palos Verdes Drive North (EW)

Existing plus ambient growth plus proposed Project plus other development Level of Service calculation worksheets are included in Appendix "I" of Appendix 15.12, *Traffic Analysis*.

As previously noted, a transportation impact on an intersection shall be deemed "significant" if the project related increase in the volume to capacity ratio equals or exceeds the threshold indicated in Table 5.12-2, *Significant Transportation Impact*.

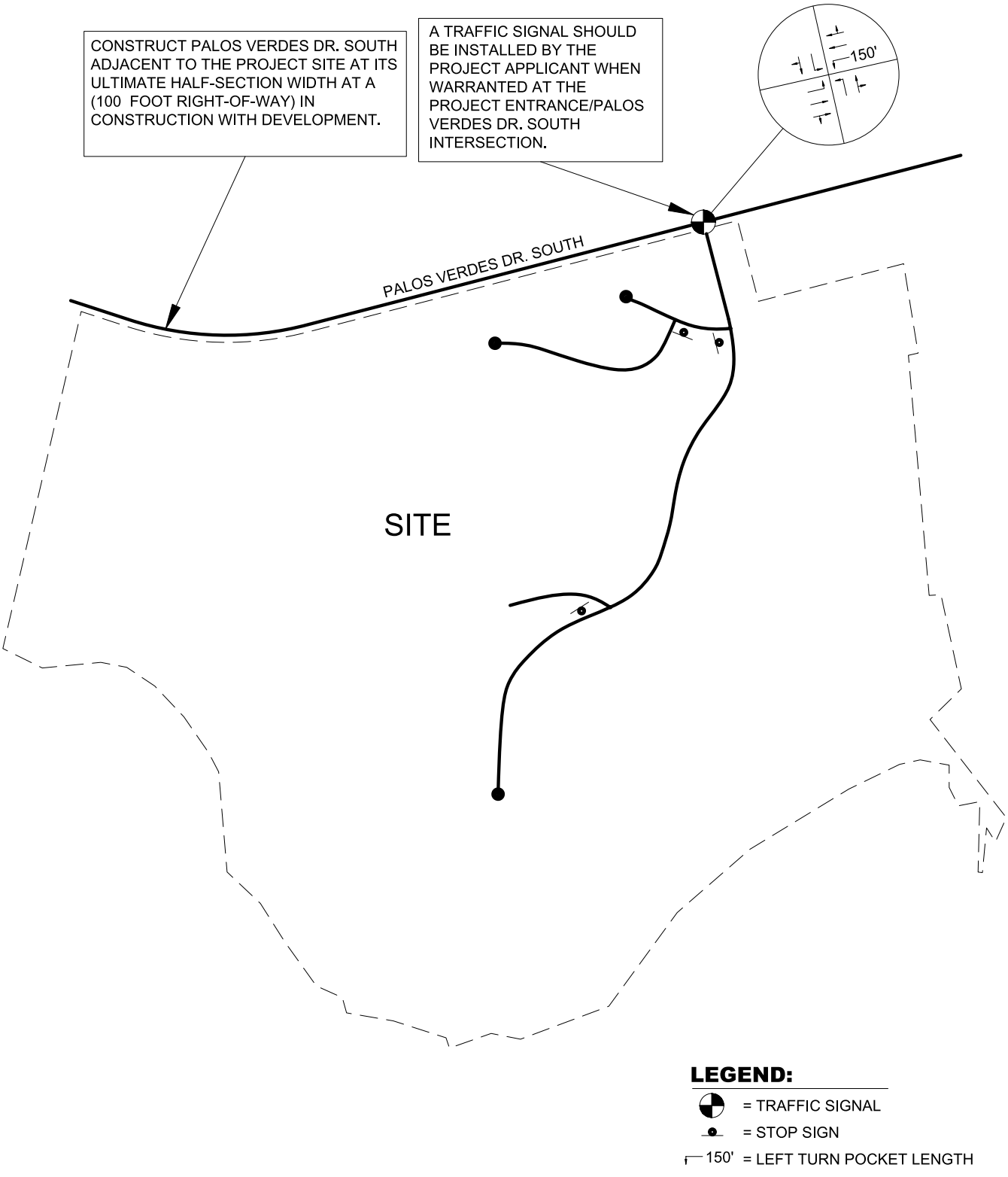
For purposes of this calculation, the "Final V/C Ratio" shall mean the future V/C ratio at an intersection considering impacts with Project, ambient and related project growth but without proposed traffic mitigation. "Project-Related Increase in V/C" shall mean the change in V/C between the future V/C ratio with Project, ambient and related project growth but without proposed traffic mitigation and the future V/C ratio with ambient and related project growth but without Project and proposed traffic mitigation.

Table 5.12-10, *Project Traffic Contribution*, depicts the Project traffic contribution at the study area intersections. The Project itself is expected to have a significant traffic impact at three (3) study area intersections projected to operate at Level of Service "E" or "F" during the peak hours. Therefore, impacts to these intersections would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with implementation of mitigation including improvements at the following intersections:

- Silver Spur Road (NS) at Hawthorne Boulevard (EW);
- Hawthorne Boulevard (NS) at Palos Verdes Drive North (EW); and
- Western Avenue (NS) at 25th Street (EW); and

Exhibit 5.12-10, *Circulation Recommendations*, illustrates the required circulation improvements. An analysis was conducted by Urban Crossroads to determine the Project's fair share portion of these improvements. The Project's share of cost has been based on the proportion of Project peak hour traffic attributed to the improvement location relative to the total new peak hour existing plus ambient growth plus proposed Project plus other development traffic volume. Table 5.12-11, *Project Fair Share Contribution*, presents a summary of Project shares at each intersection improvement location.

Exhibit 5.12-10, Circulation Recommendations



NOT TO SCALE

SOURCE: RKJK & ASSOCIATES, INC.

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Circulation Recommendations

Exhibit 5.12-10

TABLE 5.12-11
PROJECT FAIR SHARE CONTRIBUTION

Intersection	Peak Hour	Existing Traffic	Existing + Ambient Growth + Proposed Project + Other Development	Project Traffic	Total New Traffic	Project % of New Traffic
Silver Spur Rd. (NS) at: • Hawthorne Blvd. (EW)	AM PM	3,476 3,885	3,784 4,281	79 125	308 396	25,6% 31.6%
Hawthorne Blvd. (NS) at: • Palos Verdes Dr. North (EW)	AM PM	3,937 3,663	4,262 4,025	63 100	325 362	19.4% 27.6%
Western Ave. (NS) at: • 25th St. (EW)	AM PM	1,839 2,549	2,249 3,129	141 224	410 580	34.4% 38.6%

CONGESTION MANAGEMENT PLAN (CMP) ANALYSIS

5.12-2 *The proposed Project may exceed standards established by the Los Angeles County CMP. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*

The Congestion Management Plan (CMP) is a state-mandated program as a result of Proposition 111 and has been implemented by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. This analysis has been conducted in accordance with the guidelines set forth within the latest 1997 CMP for Los Angeles County.

Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis must be conducted where:

- At CMP arterial monitoring intersections, including freeway on- or off-ramps, where the proposed project will add 50 or more trips during either AM or PM weekday peak hours; and

- At CMP mainline freeway monitoring locations, where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The following three (3) intersections are designated as part of the Los Angeles County CMP arterial monitoring intersections and are affected by 50 or more peak hour Project trips (refer to Exhibits I and J of Appendix 15.12):

- Hawthorne Boulevard (NS) at:
  - Sepulveda Boulevard (EW)
  - Pacific Coast Highway (EW)
- Gaffey Street (NS) at 9th Street (EW)

The CMP defines a significant project impact as one that increases traffic demand on a CMP facility by 2% of capacity (change in V/C $\geq$ 0.02), causing or worsening LOS "F" (V/C > 1.00).

The addition of Project traffic at the three (3) CMP arterial monitoring intersections would not be significant, after implementation of specified mitigation measures. The Project would not add 150 or more trips, in either direction, during either the AM or PM peak hours along the I-110 Freeway and no further CMP analysis is required.

INTERNAL CIRCULATION AND PROJECT ENTRY GEOMETRICS

5.12-3 *Project implementation may significantly increase hazards due to a design feature. Implementation of specified mitigation measures would reduce impacts to a less than significant level.*

Main Entrance Spine Road

Using the Project trip assignment, LSA Associates has identified recommended lane geometrics for the primary roadway serving the resort and the Project entrance onto Palos Verdes Drive South.

The forecast traffic volume could be accommodated by a two lane roadway serving all of the uses on site. Additional lanes could be provided for aesthetics or on-street parking, but, would not be required from a capacity standpoint. The northbound access out of the Project site would include one left turn lane and one right turn lane based on the forecast traffic volumes. The westbound left turn demand can be accommodated by the existing left turn lane into the site (with more than adequate storage length).

The City of Rancho Palos Verdes does not have roadway design standards for residential and private roadways. According to the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets (page 333), the minimum lane width for low volume residential streets is approximately nine feet; however, a width of ten feet is more desirable. This standard does not provide for medians, bicycle lanes or on-street parking width. This design can be accomplished without either impeding traffic flow along the

proposed Resort Entry Drive (Project residential roadway) or compromising vehicular safety. The Long Point Resort internal circulation system may apply these guidelines for the design of the residential streets. This design width can also be applied for the "spine" road; however, with a higher volume, it may be beneficial to provide at minimum two 12 foot lanes.

Exhibit 3.5, *Circulation Plan*, illustrates the main entrance improvements. The spine road has been designed in excess of the minimum standard. Two 20 foot lanes are planned, separated horizontally by a 10 foot median. Therefore, a significant impact would not occur in this regard.

Signal Warrant Analysis

A signal warrant analysis was conducted for the Project Entrance (NS) at Palos Verdes Drive South (EW) intersection. The Caltrans Signal Warrant 11, Peak Hour Volume Warrant, contained in the current Traffic Manual, was used to determine whether traffic signalization is warranted at the Project entry. This warrant is applied where the volume of traffic on a major street is so heavy that traffic on a minor intersection suffers excessive delays or hazard upon entering or crossing the major street.

Signal warrants are based on the minimum approach volume requirements for the major street (total of both approaches) and the minor street (one direction only). These volume requirements have been established for two levels of development: urban and rural. According to the Caltrans Traffic Manual, "When the 85th percentile speed of major street traffic exceeds 40 miles per hour, or the intersection lies within a built-up area of an isolated community having a population less than 10,000, the location is considered rural. All other areas are considered urban." These definitions are general, in order to provide basic guidelines as to whether another signal is located in the proximity of the intersection examined. Such an intersection would affect the overall approach speed and opportunities to enter the major street. Since the prevailing speeds along the study area arterials are in excess of 40 miles per hour, the rural requirements were used for the signal warrant analysis.

The Project Entrance (NS) at Palos Verdes Drive South (EW) intersection warrants careful consideration of a traffic signal due to the a.m. and p.m. peak hour traffic volume forecast. The minor street approach volume in the a.m. peak hour exceeds the lower threshold volume for an approach with two or more lanes (i.e., 100 vehicles per hour). The forecast p.m. peak hour volume also exceeds this threshold. Thus, a traffic signal is projected to be warranted at this intersection. Impacts to this intersection would be considered significant unless mitigated. Impacts would be reduced to less than significant levels with mitigation requiring that a signal be installed at this intersection.

Level of Service at Project Entry

The level of service at the Project Entrance (NS) at Palos Verdes Drive South (EW) intersection is LOS A in the a.m. and p.m. peak hours. Therefore, one Project entrance can accommodate the forecast Project traffic. There does not appear to be a need to provide two separate access driveways onto Palos Verdes Drive.

Golf Cart Undercrossing

As previously noted, one golf cart tunnel crossing under Palos Verdes Drive South is proposed which would connect the RHA with the UPVA by a tunnel system under Palos Verdes Drive South. This crossing would provide an off-road connection between Holes 1 and 2, and between Holes 5 and 6 returning to the RHA and golf clubhouse. Concern has been expressed with respect to the impact of the undercrossing on the integrity of Palos Verdes Drive South. This impact would be considered as less than significant since the undercrossing's design would be subject to review and approval as part of the City's engineering plan review process.

PARKING CAPACITY

5.12-4 *Project implementation may result in inadequate parking capacity. Analysis has concluded that the Project proposes adequate on-site parking to meet the demand created by the proposed uses by the City of Rancho Palos Verdes standards. This would result in a less than significant impact. Mitigation would be required with respect to occasional use of the public parking areas for hotel/golf uses.*

Comparison to Similar Destination Resorts

A research effort was conducted by LSA Associates (May, 2000) to compare the proposed Project to other facilities in the area that function in a similar manner (refer to Appendix 15.12, *Traffic Impact Analysis*). The purpose of this comparison was to identify parking rates of similar projects that are applicable to the proposed Long Point Resort.

Large-scale hotel facilities contain varying components of meeting space, dining, recreation, and retail facilities and, depending on location and quality level, they service various market segments that may have differing parking demands. As a result, the ratio of the number of parking spaces per guest room can vary widely from property to property, and a simple, reliable comparison to a closely similar property is not often available. Nonetheless, four sources of information that provide perspectives on parking demand generated by similar facilities were identified. The information sources are summarized below:

Institute of Transportation Engineers. The ITE Parking Generation, August, 1987, manual is a key reference source for identifying parking demand in the transportation engineering profession. Parking rates are determined based on hotel surveys nationwide. This source describes a convention hotel as a place of lodging providing sleeping accommodations, restaurants, lounges, and meeting and banquet rooms capable of handling conventions. These hotels often have retail and service shops within the facility. The average weekend parking rates for convention hotels range between 0.73 and 1.33 spaces per room. For comparative purposes, the parking rates surveyed for non-convention hotels range between 0.29 and 0.68 spaces per room.

Resort Hotel Traffic Study. The Resort Hotel Traffic Study was prepared by Austin-Foust Associates, Inc. in December, 1986. This study identified parking rates based on actual parking surveys for the following resort hotels:

- Hotel del Coronado - Coronado, California
- La Costa - San Diego County, California
- Marriott Hotel - Newport Beach, California
- Hyatt at Hilton Head - South Carolina.

The amenities of these resort hotels are very similar to those of the proposed Long Point Resort. The hotels described above all include conference and meeting facilities, restaurants, gift shops, spas, tennis, and golf on site.[2]

Table 5.12-12, *Similar Hotel Parking Rates*, identifies the number of rooms for each hotel and the prevailing parking rate. As Table 5.12-12 indicates, the highest parking rate was at the 376 room La Costa Hotel.[3]

TABLE 5.12-12
SIMILAR HOTEL PARKING RATES

Hotel	Number of Rooms	Parking Spaces per Room
Del Coronado	689	0.99

[2] While the Hotel del Coronado does not include golf on site, the Coronado Golf Course is located nearby, and the Hotel provides a shuttle service to this amenity. Therefore, the parking statistics identified in the Austin-Foust Resort Hotel Traffic Study are applicable to the proposed Long Point Resort Project.

[3] The La Costa parking included non-guest membership users of the spa, tennis courts, and golf facilities. These facilities are used on a regular basis by members living in the surrounding area. Austin-Foust adjusted the observed parking rate of 1.88 spaces per room to account for the residential patronage not associated with the hotel. The Hotel's adjusted rate to account for non-hotel guests was 1.39 spaces per room. The La Costa site is also freeway close, which would attract more local patrons than the proposed Long Point Resort, which is isolated from regional access.

La Costa	376	1.39
Marriott	400	0.81
Hyatt	359	0.80

Hotel Planning and Design. A key reference material in the hotel planning business is Hotel Planning and Design, by Walter A. Rutes and Richard H. Penner. This source describes conceptual planning elements for different types of hotels and/or motels. One crucial element in hotel planning is the provision for sufficient parking.

This document provides a summary of parking rates for different types of hotels according to spaces per room. Table 5.12-13, *Summary of Parking Rates*, provides this summary.

TABLE 5.12-13
SUMMARY OF PARKING RATES

Type of Hotel	Parking Rate (Spaces/ room)	Description
Downtown	0.4 - 0.8	Assumes limited function space
Suburban	1.2 - 1.4	Heavy local meeting/banquet use
Airport	0.6 - 1.0	Moderate rental car use
Highway	1.0 - 1.2	Some local banquet/F&B use
Resort	0.2 - 1.4	Varies by location/proximity to urban centers
Convention	0.8 - 1.4	Regional conv. hotels need higher provision
Conference	1.0 - 1.3	If full house, minimum local use
Residential	1.2 - 2.0	May need two spaces/condominium
All-suite	0.8 - 1.2	Limited public functions
Super-luxury	1.0 - 1.2	Limited public functions
Mega-hotel	1.0 - 1.2	Limited local business; high rental car or shuttle use
Mixed-use	0.6 - 1.2	Highly variable depending on other activities
Casino	0.8 - 2.0	Varies by location; extensive bus parking

The Waterfront Hilton Beach Resort Parking Survey. The Waterfront Hilton Beach Resort is a 300 room hotel located in Huntington Beach. As originally constructed, the Waterfront Hilton Beach Resort conformed to the City of Huntington Beach parking code for hotel use (i.e., 1.1 parking spaces per hotel room). Approximately 330 parking spaces were required and constructed for the existing hotel. However, over time the total on-site parking supply available for the Waterfront Hotel has grown to approximately 594 spaces. A parking accumulation study was conducted in February, 1994, to determine the actual parking demand. The peak demand is

determined to be 427 spaces, or a parking rate of 1.47 spaces per occupied room. This parking rate inherently includes all of the amenities on site, including the 21,500 square feet of conference and banquet facilities.

It should be noted that the resort hotel and conference components operate in conjunction with each other, not independently. The meeting rooms/exhibit space is not large enough for independent exhibition events associated with typical convention centers (e.g., Long Beach or Anaheim Convention Center). The occupancy of the hotel would directly correspond with the use of the meeting rooms and conference room facilities. Therefore, it should be recognized that the parking demand for the meeting facility is a function of the occupancy of the hotel. The two components are intended to share the parking demand and are not viewed as independent land uses.

Proposed Project Parking Characteristics. As discussed above, the proposed Long Point Resort is a unique Project that would function as a destination resort and not a site of independent land uses. The occupancy of the hotel is directly related to the demand of the other facilities on site and, therefore, should be parked as a single resort use.

The current Project description includes a parking supply of 825 spaces (excluding approximately 100 spaces designated for public parking). The total parking supply also includes subterranean valet parking for the hotel guests. Approximately 30 percent of the total parking supply would be valet parking. Based on this information and the total parking supply provided, the Project would have a parking ratio of 1.5 spaces per room, not including the public parking spaces. This parking rate for the 400 hotel rooms, the 150 casitas (multiple keyed) and all of the amenities on site, including the public meeting space, would meet the overall parking demand for hotel guests and employees.[4,5]

For resort/convention hotels, the ITE Parking Generation manual cites a range of 0.73 to 1.33 parking spaces per room, the Resort Hotel Traffic Study cites a range of 0.80 to 1.39, the reference book Hotel Planning and Design suggests 0.8 to 1.4 parking spaces per room and the existing Waterfront Hilton Beach Resort has a parking supply of 1.47 spaces per room. The parking rate described from these resources inherently includes the amenities and public meeting facilities within the rate structure. Therefore, as the proposed Long Point Resort Project would function in a similar manner as these hotels (including amenities on site), a parking rate commensurate with these definitions is appropriate. LSA has determined that with

[4] This amount excludes the 32 Resort Villas since they would require individual parking for each unit.

[5] Only in special circumstances would the public parking areas be used by the Resort. These situations most likely would occur in the evening hours, when the public parking is available for Hotel use.

resort/conference hotels, an aggregate parking rate of 1.4 or 1.5 spaces per room would be appropriate for use in the Project design.

Assuming the development of 550 rooms and a parking rate of 1.5 spaces per room, the proposed Project would require 825 parking spaces. The Project proposes 825 on-site parking spaces (refer to Table 5.12-14, *Resort Hotel Area Parking Provisions*). This proposed amount would be adequate to meet the parking demand created by the proposed Project.

The Long Point Resort is projected to employ approximately 700 full-time equivalent employees (FTEE). These employees, however, would work separate shifts, with a maximum of approximately 100 actual employees on site at one time (with the exception of major conferences, banquets, and/or meetings). The parking supply of 825 spaces would adequately serve both the hotel patronage and employee parking on a regular business day. The parking rates provided in the analysis inherently include employee parking. Providing parking at a site to include the maximum number of employees at one time is not considered appropriate.[6] The actual number of employees on site at one time would be based on schedule and the number of shifts over 24 hours. The total number of employees would never be at the site at one time. The 700 employees includes full-time and part-time staff. With 550 rooms on site, the ratio of employees to rooms would be approximately 1.3, with a parking ratio of 1.5 spaces per room.[7] Employee parking would be designated in remote locations on the Project site, and not adjacent to the primary uses.

[6] Memorandum: Ken Wilhelm, LSA Associates, Inc., December 1, 2000, page 2.

[7] For comparative purposes, the Hotel del Coronado has approximately 689 rooms and 1,200 employees (1.7 employees per room), with a parking ratio of 0.99 spaces per room, and the Marriott has approximately 400 rooms and 500 employees (1.3 employees per room), with a parking ratio of 0.81 spaces per room. Based on this, the proposed Long Point Project would provide an adequate parking supply for both patrons and employees compared to similar hotels.

TABLE 5.12-14
RESORT HOTEL AREA PARKING PROVISIONS[1]

Primary Use	Parking Location	No. of Spaces
Visitor-Serving and Public Parking Areas		
A. Resort Hotel	1. Main Hotel Building (2 subterranean levels, valet only)	240
	2. Main Hotel Surface Parking Area	270
	3. East Casita Surface Parking Areas	80
	4. West Resort/Casita Surface Parking Area	155
B. Golf Course/Golf Clubhouse	Golf Parking Area (adjacent to Clubhouse)	80
	TOTAL	**825**
C. General Public Parking[2]	1. Resort Coastal Access Parking Area (PA 2-D)	50
	2. Fishing Access Parking Expansion (PA 2-A)	50
	TOTAL	**100**
D. Resort Villas	1. Covered Parking[3]	2 spaces/DU
	2. Street Parking[4]	½ space/DU

Source: Exhibit 6.9, Resort Hotel Area Parking Provisions, of the Long Point Permit Documentation, June 23, 2000, Page 6-31.

Notes:
1 The final distribution of parking spaces may shift, however, the total number of parking space provided shall equal 925.
2 General Public Parking Areas (2-A and 2-D) may be utilized for guest-related evening parking in conjunction with Resort Hotel or Golf Clubhouse functions.
3 Resort Villa guest parking would be provided in enclosed garages.
4 Resort Villa visitor parking areas would be provided on-street or in surface parking bays.

LSA has estimated that approximately 50 percent of the employees would be transit dependent. The percentage of employees dependent on transit was estimated based on similar hotels operated by the Applicant. As a result, approximately 40 to 50% of the employees are estimated to be transit dependent. This range does not effect the overall parking demand, as the rate of 1.5 spaces per room inherently includes employee parking. Therefore, the transit employees would provide a surplus of parking since they would not drive to work.

The special events discussed above would not occur frequently, and in the event the parking demand was in excess of the 825 spaces, the public parking (100 spaces) could be utilized. Use of public parking areas for hotel/golf uses may impact the adequacy of parking for public uses. This impact would be considered significant unless mitigated. Implementation of the specified mitigation restricting the use of public parking areas would reduce this impact to a less than significant level.

The current Project description includes a parking supply of 825 spaces. As a result, the proposed development would have a parking ratio of approximately 1.5 spaces per guest room. This parking rate for the 550 accommodation rooms, including multiple keys for the casitas, all of the amenities on site, and public meeting facilities, would be adequate to meet the overall parking demand for hotel guests and employees of the Long Point Resort. Therefore, a significant impact would not be anticipated in this regard.

MITIGATION MEASURES

The recommendations in this Section address on-site improvements, off-site improvements and the phasing of all necessary study area transportation improvements. The following mitigation measures directly correspond to the numbered impact statements in the Impact Analysis.

TRAFFIC GENERATION

5.12-1a Prior to Occupancy Permit issuance, Palos Verdes Drive South, adjacent to the Project site, shall be constructed at its ultimate width at a 100 foot right-of-way.

5.12-1b Prior to Occupancy Permit issuance, a 150-foot minimum left turn pocket shall be provided for vehicles traveling west on Palos Verdes Drive South and desiring to turn left into the main access to the Project site.

5.12-1c Prior to Occupancy Permit issuance, access to the driving range shall be restricted to right turns in/out only.

5.12-1d Prior to Occupancy Permit issuance or when warranted, a traffic signal shall be installed by the Project Applicant at the Project Entrance (NS) at Palos Verdes Drive South (EW).

5.12-1e Prior to Occupancy Permit issuance, the Project Applicant shall make the following roadway improvements:

- Silver Spur Road (NS) at Hawthorne Boulevard (EW)
  - Restripe south leg with two left turn lanes, one through lane and one right turn lane and
  - Provide north leg with one left turn lane, two through lanes and one right turn lane
- Hawthorne Boulevard (NS) at Palos Verdes Drive North (EW)
  - Provide west leg with one left turn lane, one shared left/ through lane, one through lane and one right turn lane
- Western Avenue (NS) at 25th Street (EW)
  - Provide east leg with one left turn lane, two through lanes and one right turn lane

CONGESTION MANAGEMENT PLAN

5.12-2 Refer to Mitigation Measure 5.12-1.

INTERNAL CIRCULATION AND PROJECT ENTRY GEOMETRICS

5.12-3a Sight distances at the Project entrances shall be further reviewed with respect to standard Caltrans/City of Rancho Palos Verdes sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

5.12-3b Internal traffic signing/striping shall be implemented in conjunction with detailed construction plans for the Project.

PARKING CAPACITY

5.12-4 The use of public parking areas for hotel/golf uses shall be restricted unless a Conditional Use Permit or other approval from the City is obtained.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant impacts related to Traffic and Circulation have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

5.13 RECREATION

This Section includes an Existing Conditions discussion which provides background information necessary to understand potential impacts of the proposed Project. The criteria by which an impact may be considered potentially significant is provided along with a discussion of impacts pursuant to Appendix G of California Environmental Quality Act (CEQA). The impact analysis in this section addresses potential impacts with respect to increased usage of existing facilities, the physical effects of the proposed recreational uses, and compliance with City of Rancho Palos Verdes' plans and policies. Mitigation measures are identified in an effort to reduce potential impacts to less than significant levels.

EXISTING CONDITIONS

As stated in the City of Rancho Palos Verdes General Plan, both the private and the public sectors provide recreational activities within the City of Rancho Palos Verdes. The various types of facilities provided by the private sector include tennis courts, equestrian centers, beach clubs, etc. These are available to individuals who either pay a fee for their use or are members of the club operating the facility. The private sector helps diminish recreational demands and/or supplies specialized facilities which are not supported by the City.[1]

According to the General Plan, public recreational facilities in the City are provided by various levels of government including the Palos Verdes Peninsula Unified School District (PVPUSD), the County of Los Angeles, and the City of Rancho Palos Verdes. The facilities are proposed, planned, acquired, developed and operated by each of these separate entities.

Recreational facilities in the City are grouped into active recreational areas and passive recreational areas. Active recreational facilities are highly structured and designed with specific activity areas, such as recreation buildings, tennis courts, baseball fields, children's play apparatus, etc. Conversely, passive recreational facilities are mostly unstructured in order to allow natural ecosystems to function with the least amount of human disturbance. Passive sites are usually used for nature studies, hiking trails, limited picnicking areas, etc.

EXISTING PARKS/RECREATIONAL FACILITIES

Table 5.13-1, *Recreational Facilities*, details the parks which currently exist within the City of Rancho Palos Verdes. The City operates 13 parks totaling approximately 244 acres and approximately one 104-acre golf course.

[1] City of Rancho Palos Verdes General Plan, Urban Environment Element, June 1975, Page 93.

TABLE 5.13-1
EXISTING RECREATIONAL FACILITIES IN RANCHO PALOS VERDES

Park	Acreage			
	RPV[1]	LAC[2]	Active	Passive
Abalone Cove Shoreline Park		82		82
Clovercliff Park	0.17			0.17
Del Cerro Park	4.5		4.5	
Eastview Park	12		12	
Fred Hesse Community Park	29		29	
Friendship Park		97		97
Grandview Park	17			17
Ladera Linda Community Center	11.4		11.4	
Martingdale Trailhead Park	1.4			1.4
Miraleste Recreation and Park District	32			32
Point Vicente Park and Civic Center	11			11
Point Vicente Interpretive Center	27.5			27.5
Portuguese Bend Fields		22	22	
Robert Ryan Community Park	9		9	
Shoreline Park	72			72
Vanderlip Park	17			17
SUB TOTAL PARK ACREAGE	**243.97**	**201**	**87.9**	**357.07**
TOTAL PARK ACREAGE	**444.97**			
Ocean Trails Golf Course	104		104	
Los Verdes Golf Course		100	100	
SUB TOTAL GOLF COURSE ACREAGE	**104**		**204**	
TOTAL EXISTING RECREATION FACILITIES	**648.97**			

Notes:

1. City of Rancho Palos Verdes
2. County of Los Angeles
3. County-owned, City-Leased

The County of Los Angeles operates three parks within the City, totaling 201 acres and one 100-acre golf course. As indicated in Table 5.13-1, a total of 291.9 acres of active recreational facilities and 357.07 acres of passive recreational facilities exist in City at the present time.

PATH AND TRAILS NETWORK

The City has an established trail network which includes equestrian, pedestrian and bicycle trails. The City's Trails Network Plan, adopted in November 1984, is the implementation tool for policies regarding trails established by the City's General Plan and the Local Coastal Plan.

General Plan

The following discussion is based on information provided in the General Plan:

As an integral part of the transportation component of the infrastructure, walkways, bikeways, and equestrian trails make up the classification referred to in the General Plan as "Path and Trail Networks". In addition to satisfying recreation demands, as do equestrian trails, the potential of bikeways and walkways as functioning transportation networks is increasingly evident.

An analysis of existing path and trail networks within the City of Rancho Palos Verdes indicates the following:

- A "Bikeways Plan" (updated October 15, 1996) exists and has been implemented incrementally;
- Urban walkways (sidewalks) exist, however, major transportation or recreation linkages have not been identified; and
- A system of designated non-urban trails oriented toward providing access to the natural environment has been developed and has been implemented incrementally.

Path and trail networks, while functioning as transportation systems, also constitute a major addition to existing and proposed recreation facilities by functioning as linear recreation facilities, and by acting as linkages between various types of recreational and educational activity areas.

Bikeways. While bicycling has, for many years, provided a popular mode of recreation and transportation for limited segments of the City's population, an

unprecedented growth of bicycling has occurred in all segments of the population, and evidence suggests that this growth trend will continue.[2]

The Rancho Palos Verdes bikeways network is proposed as a conceptual Plan and, therefore, is intended to offer only an interim solution, and perhaps act as a model for the development of a Peninsula-wide bikeway network study and subsequent plan.

The proposed bikeways network consists of an integrated dual system (transportation/recreation) which forms concentric loops (approximately), radial branches connecting the primary loops, and several bypasses.

The principal component of the network is the Peninsula Loop. The Peninsula Loop would serve cyclists from both a recreation and transportation aspect and should be designated as such. The basic configuration of this Loop has long been recognized as an ideal transportation and recreation route by cyclists and interested agencies. Although no formal path exists, cyclists currently use the proposed route for circling the Peninsula. According to Figure 20, *Conceptual Bikeways Network*, of the General Plan, the following bikeways are located in the Project area:

Resort Hotel Area

- The Palos Verdes Drive South/25th Street alignment of the Peninsula Loop trail extends from Palos Verdes Drive West to Western Avenue. A segment of this trail passes along the northern boundary of the RHA; and

- A By-Pass trail is identified along the eastern edge of the RHA (outside of the Project site) extending along the coastal bluffs to and from Palos Verdes Drive South. According to the General Plan, a loop by-pass potential exists east of the Marineland site on a series of streets running through a small residential area. The approximate by-pass alignment would include Seawolf Drive, Beachview Drive, Nantasket Drive, and Sea Cove Drive.

Upper Point Vicente Area

- A radial trail is identified along Hawthorne Boulevard, from Palos Verdes Drive South to Crest Road.

Walkways. The walkways plan consists of two dominant components: Urban trails and non-urban trails. The first and most important to the City's residents is the system of urban trails (existing and future sidewalks), which act as primary transportation linkages. Non-urban trails provide a vital link to the more natural environment for residents and visitors.

[2] Rancho Palos Verdes General Plan, Urban Environment Element, June 26,1975, page 126.

Much like the proposed bikeway system, the configuration of the walkway system takes the form of two concentric loops and associated radial connecting branches, which are primarily urban trails, and a system of non-urban trails functioning as scenic/recreation by-passes.

Urban Trails

Of major significance to the entire Palos Verdes Peninsula is the Walkways Loop made up of paths paralleling Palos Verdes Drive West, Palos Verdes Drive South, Palos Verdes Drive East, and Palos Verdes Drive North. This Loop is specifically designated as an urban trail. According to Figure 21, *Conceptual Walkways Network*, of the General Plan, the following Urban Walkways are located in the Project area:

- Resort Hotel Area (RHA): The Palos Verdes Drive South/25th Street alignment of the Peninsula Walkways Loop trail extends from Palos Verdes Drive West to Western Avenue. A segment of this trail passes along the northern boundary of the RHA; and

- Upper Point Vicente Area (UPVA): An Urban trail is identified parallel to Hawthorne Boulevard, along the northern boundary of the UPVA.

Non-Urban Trails

The other feature of the walkways plan includes a network of designated non-urban trails used principally for recreation purposes. Day hiking and pleasure walking normally make up the function activities which take place on these trails, although they may sometimes be used for commuting purposes. Seldom associated with the street system, the majority of trails extend from urban/natural interfaces into the natural environment, and back to interface areas. The character of non-urban trails is usually that of a configuration which best suits the topography and a surface of either natural or man-made materials. According to Figure 21, *Conceptual Walkways Network*, of the General Plan, the following Non-Urban Walkways are proposed in the Project area:

- Resort Hotel Area: One Non-Urban Walkway is identified along the eastern edge of the RHA (outside of the Project site) extending along the coastal bluffs to and from Palos Verdes Drive South. It's alignment travels along the eastern edge of the RHA extending along the coastal bluffs to and from Palos Verdes Drive South. This alignment is referred to as the Coastal Bluff Trail.

- Upper Point Vicente Area: There are no Non-Urban Walkways identified in Figure 21 on the UPVA.

Potential Beach Access. According to Figure 21, two Potential Beach Access points have been identified near the RHA: one Access is identified at the southeastern corner of the RHA and the other is identified at the Point Vicente Fishing Access.

Equestrian Trails. According to Figure 22, *Conceptual Equestrian Network*, of the General Plan, an equestrian trail extends along Palos Verdes Drive South, immediately north of the RHA. However, in a 1978 Amendment to the General Plan, equestrian trails depicted in Figure 22 and the corresponding text were eliminated.[3]

Coastal Specific Plan[4]

According to the Coastal Specific Plan (CSP), Access Corridors provide access to and from activity areas by vehicles, pedestrians, and bicyclists. Very often, an access corridor would act as a multi functional corridor; however, single function access corridors can be found in the coastal region. Access corridors may also perform recreational and open space functions. The primary access corridor within the coast region is Palos Verdes Drive West/South/25th Street, which at present operates as a multifunction access corridor, providing automobile, bicycle, and pedestrian access. It forms the spine of an Access Corridors concept which involves a series of laterals and loops within the coastal region which would provide access to, from, and through developed and undeveloped areas.

Figure 24, *Access Corridors*, of the Coastal Specific Plan, illustrates the types of Access Corridors which might be developed within the coastal region. According to Figure 24, the following paths/trails relevant to the proposed Project site are identified:

Resort Hotel Area

- A primary path/trail runs parallel to Rancho Palos Verdes Drive South/West, along the northern border of this Area;

- A secondary trail starts at the historic Marineland entry on Palos Verdes Drive South, continues within the eastern portion of the site, parallel to the entry drive, proceeds east along the bluffs of the Pacific Ocean, then returns north to Palos Verdes Drive South;

[3] Resolution No. 78-81 (Exhibit A).

[4] As discussed in Section 3.0, *Project Description*, only the RHA is located within the Coastal Specific Plan (CSP) area.

- Two major bluff access points are identified: one access is identified at the southeastern corner of the RHA and the other is identified at the Point Vicente Fishing Access, immediately west of the RHA; and

- A proposed parking/turnout is identified at the Point Vicente Fishing Access.

Upper Point Vicente Area

As discussed in Section 3.0, *Project Description*, the UPVA is located outside of the CSP area.

RANCHO PALOS VERDES PARKS MASTER PLAN

The Rancho Palos Verdes Parks Master Plan (1989) contains recommendations for park development in the City, classifying the recommendations according to the following four categories:

- Immediate - Those acquisitions and developments which should take place as soon as financing is available.

- Class A: Acquisitions or development projects which are recommended to be accomplished within the next two years;

- Class B: Acquisitions or development projects which are recommended to be accomplished within the next five years; and

- Class C: Acquisitions or development which should be accomplished as funding becomes available.

The following recommendations (and their respective classifications) as identified in the Rancho Palos Verdes Parks Master Plan pertain to the Project area:

Upper Point Vicente Area

Immediate. "Develop a Senior Citizens Center at Pt. Vicente Park/Civic Center" (Page 4);

Class A. "Build a municipal golf course at Point Vicente Park which would wrap around existing and proposed park facilities and utilize neighboring privately held property to give it the proper size to be a championship course. Residents of Rancho Palos [Verdes] should be given priority as to starting times and fees"[5] (Page 5);

[5] It should be noted that restrictions on the property would likely now preclude any such preference.

Class A. "Add irrigation, turf and fencing to the athletic field partially completed at Pt. Vicente Park/Civic Center";

Class B. Point Vicente Park/Civic Center (Page 6):

- Add a public restroom facility;
- Construct two paddle tennis courts;
- Add pedestrian paths throughout the property
- Construct a permanent amphitheater with tiered semicircular bench seating with backs.

Resort Hotel Area

The City's Parks Master Plan does not specifically address the development of this area. However, as noted above, the Plan establishes a high priority for the development of an expanded park facility on the adjacent UPVA and suggests the use of neighboring privately held property (i.e. the RHA) to give a municipal golf course the proper size.

RANCHO PALOS VERDES CONCEPTUAL TRAILS PLAN

The *Conceptual Trails Plan for the City of Rancho Palos Verdes* was approved by the City Council on January 22, 1990, and revised by the City Council on December 6, 1991 and September 7, 1993.[6]

The purpose of the Conceptual Trails Plan is to identify the trail opportunities within the community, so that the acquisition and development of new public trails, through new development proposals, public works projects, and voluntary efforts can be integrated into the City's existing public trails network. Therefore, with the exception of Category I trails (described below), which are existing, dedicated public trails, the trails contained in this document are conceptual only.

For purposes of analysis, the City of Rancho Palos Verdes was divided into five geographic areas, and the Conceptual Trails Plan was written accordingly. Additionally, five trail systems (made up of a series of trail segments) which are found in more than one geographic area of the City were identified:

- "A": Palos Verdes Loop Trail
- "B": Top-of-the-Hill Trail System
- "C": Palos Verdes Drive Trail System
- "D": Coastal Bluff Trail System

[6] Its preparation has been the first phase of a process to revise the City's Trails Network Plan, and the information in the "Conceptual Trails Plan," combined with the "Conceptual Bikeways Plan," will become the first section of the City's revised Trails Network Plan.

- "E": Coastal Access Trails

The Palos Verdes Loop Trail, if fully implemented, would create a continuous loop around the Peninsula, passing through the Cities of Rancho Palos Verdes, Rolling Hills Estates, and Palos Verdes Estates.

Trails in the Plan are addressed on an individual basis. Each trail recommended is described with respect to five factors: (1) route, (2) status, (3) standards, (4) use, and (5) access. An explanation of each of these factors follows:

Route. Trails in the Trails Plan are identified as having one of two types of trail routes: point-to-point or specific course. Point-to-point trail routes are proposed trail routes which can be determined in the course of future development, provided that they connect with prescribed end points. End points are those places where the trail route connects with other trail routes or public rights-of-way. Specific course trail routes are proposed trail routes which (1) are confined to a particular course or corridor due to development, topography, or other constraints, or (2) follow the course of existing, but undedicated trails.

Status. To indicate what would be involved in the implementation of a particular trail, each trail recommended has been placed into one of six categories. These categories are as follows:

- *Category I:* Existing, dedicated trails which meet trail standards.

- *Category II:* Proposed trails and trail segments which cross undeveloped privately-owned land that is zoned as being developable. These trails and trail segments should be implemented when the respective parcels of land are developed.

- *Category III:* Proposed trails and trail segments which are located on existing trail easements, City property, or street right-of-ways and which require implementation or improvements.

- *Category IV:* Proposed trails and trail segments which cross privately-owned land designated as Open Space or Open Space Hazard, or on land owned by a public utility or public agency. These trails and trail segments require the acquisition of easements, and may require implementation or improvements.

- *Category V:* Proposed trails which would primarily benefit neighborhood residents, and which cross privately-owned land. Efforts to implement these trails shall only be initiated by affected property owners or community groups. The City shall provide guidance to those who wish to implement these trails, but it will not initiate efforts to implement them.

- *Category VI:* Proposed trails and trail segments which have special circumstances, considerations, or constraints.

Standards. Each trail is identified as having a level of difficulty of "easy", "intermediate", or "challenging". Each level of difficulty has specific criteria for trail width, average and maximum grade, and clearance distance. Trail standards also vary with designated trail usage.

Use. City policy is that all trails should be available to the maximum number of residents. The Palos Verdes Peninsula has a history of shared (or multi-purpose) trail use, by pedestrians, equestrians, and off-road bicyclists.

Access. Each trail and trail segment is described in relation to its place in the overall trails network.

The following recommendations as identified in the City of Rancho Palos Verdes Conceptual Trails Plan pertain to the Project area:

Upper Point Vicente Area

Palos Verdes Loop Trail - City Hall Segment

Route: This point-to-point trail segment begins on the east side of Palos Verdes Drive South at the northern boundary of the City Hall site. Provision should be made for a designated crossing of Palos Verdes Drive West. The trail goes up to the City Hall complex, and then extends eastward to a point just above Palos Verdes Drive South on the western boundary of the Salvation Army parcel. The trail route can be determined in the course of future development, but should include the historic bunker area as a vista point. It is recommended that this area be developed as a stopping point with a water fountain, rustic seating, and equestrian amenities.

Status: Category III. This trail segment crosses the City Hall site, and should be included in any plans for its development.

Standards: Easy.

Use: Multi-purpose.

Access: This trail segment is part of the Palos Verdes Loop Trail, connecting to the Baby's Breath (A4) and Salvation Army (A6) Segments. It also connects with the Sunset Ridge Trail (H3). Parking is available at the City Hall site.

Palos Verdes Loop Trail - Salvation Army Segment

Route: This specific course trail segment begins on the western boundary of the Salvation Army parcel above Palos Verdes Drive South. It extends eastward to a point just above Palos Verdes Drive South on the parcel's eastern boundary. The trail should be separated from the road by a grade change, and kept as far from the road as possible. Provision must be made for crossing the access road, Crestmont Lane.

Status: Category VI. The preferred route for this trail is on the southern edge of the Salvation Army parcel, on the bank above Palos Verdes Drive South. An alternate location would be within the street right-of-way.

Standards: Easy.

Use: Multi-purpose.

Access: This trail segment is part of the Palos Verdes Loop Trail, connecting to the City Hall (A5) and Seahill (A7) Segments. Access would be possible from a trail within the Long Point parcel if provision were made for crossing Palos Verdes Drive South. Parking is available at the City Hall Complex.

Resort Hotel Area

Palos Verdes Drive Trail - Marineland Segment

Route: This specific course trail segment begins at the western boundary of the Long Point parcel and continues along the south side of Palos Verdes Drive South to the eastern boundary of the parcel.

Status: Category III. This trail segment can be located in the street right-of-way, and should be included in any plans for the reconstruction of Palos Verdes Drive South. It also may be located in a linear park created when the adjacent parcel is developed.

Standards: Easy.

Use: Pedestrian.

Access: This trail segment is part of the Palos Verdes Drive Trail, connecting to the Point Vicente (C4) and Condo (C6) Segments. It forms a portion of the perimeter trail around the Long Point parcel. This trail segment also connects with the Flower Field (E2) and Café (J2) Trails. It is across the street from the Salvation army Segment (A6) of the Palos Verdes Loop Trail and the Vallon Trail (H2). Parking should be provided on the Long Point site when it is developed.

Coastal Bluff Trail System - Long Point Trail Segment

Route: This specific course trail begins at the western boundary of the Long Point parcel at Palos Verdes Drive South. It extends southward, then eastward along the bluff top to the eastern boundary of the parcel.

Status: Category II. This trail should be implemented when the parcel is developed.

Standards: Easy.

Use: Pedestrian.

Access: This trail connects with the Point Vicente (C4/D3) and Marineland (C5) Segments of the Palos Verdes Drive Trail. It also connects with the Vanderlip Park (D5) and Flower Field (E2) Trails. Parking should be provided on the Long Point site when it is developed.

Coastal Access Trails - Flower Field Trail Segment

Route: This point-to-point trail begins on the north side of Palos Verdes Drive South, crosses at Crestmont Lane to the east side of the entrance road to the Long Point Parcel, and then extends southward to the bluff. The trail route can be determined in the course of future development, as long as it connects with the Long Point Trail and provides for crossing Palos Verdes Drive South. A connection should also be made with Seacove Drive.

Status: Category II. This trail should be implemented when the parcel is developed. There are numerous existing trails across this parcel.

Standards: Easy.

Use: Pedestrian.

Access: This trail connects with the Long Point Trail (D4) and intersects the Palos Verdes Loop Trail (A) and the Palos Verdes Drive Trail (C). Parking should be provided on the Long Point site when it is developed.

Other Trails - Café Trail Segment

Route: This point-to-point trail extends from the Palos Verdes Loop Trail across Palos Verdes Drive South to the proposed restaurant to be developed on the northern edge of the Long Point site.

Status: Category II. This trail should be implemented when this parcel is developed.

Standards: Easy.

Use: Pedestrian/equestrian.

Access: This short trail link connects with the Salvation Army Segment (A6) of the Palos Verdes Loop Trail, and with the Marineland Segment (C5) of the Palos Verdes Drive Trail. It provides pedestrians and equestrians with access to the proposed restaurant.

RANCHO PALOS VERDES CONCEPTUAL BIKEWAY PLAN

The Rancho Palos Verdes *Conceptual Bikeways Plan* was adopted by the City Council on January 22, 1990, and revised by the City Council on October 15, 1996.

The purpose of the Conceptual Bikeways Plan is to identify the bikeway's opportunities within the community so that the acquisition and development of new bikeways through development proposals, public works projects, and voluntary efforts can be integrated into the City's existing public trails network. Therefore, with the exception of existing bikeways, the paths contained in the Bikeway Plan are conceptual only.

Each bikeway being recommended in the plan is described with respect to four factors: (1) segment location, (2) type, (3) status, and (4) access. An explanation of each follows:

Segment Location. Bikeways are identified by street name, and by beginning and ending points. Unless otherwise noted, the bikeway Segment will be located in both travel directions along the roadway.

Type. Each bikeway is described as being either Class I, Class I/Off-Road, Class II, or Class III. Except where noted, these classes coincide with the State guidelines for bikeways (see Appendix A). A description of each follows:

- *Class I:* A Class I bikeway is a special pathway designated for the exclusive use of bicycles. Crossflows by pedestrians and motorists are minimized. It is usually separated from motor vehicle facilities by a space or physical barrier. It is usually grade separated, but it may have street crossings at designated traffic controlled locations. It is identified with signing and also may have pavement markings. It can be used in both directions and is located on one side of the street. It should be noted that the State refers to a Class I bikeway as a "bike trail." To avoid confusion with unpaved trails (e.g., pedestrian/

equestrian), Class I bikeways are instead refereed to as “bike paths” in this document.

- *Class I/Off-Road:* While not specifically described by Caltrans, this designation has been included by the City in order to accommodate off-road bicycling interests within the City. These bikeways are to be designed for use by “mountain” or “all terrain” bicycle enthusiasts, and should be separated as much as possible from the roadway by a grade change and landscaping. In addition, these bikeways should not be paved with standard concrete or asphalt material, and instead should be constructed of natural earth or soft “off-road” tread. Currently this bikeway designation is found in the Ocean Trails Project area (VTM 50666 and 50667) and in the Forrestal Project area (Tentative Tract 37885).

- *Class II:* A Class II bikeway, or “bike lane”, is a lane on the paved area of a road for preferential use by bicycles. It is usually located along the edge of the paved area outside the traveled lanes or between the parking lane and the first motor vehicle lane, It is identified by limited “bike lane” or “bike route” signing, special lane lines, bicycle symbols or “bikes only” stencils on the pavement, and other pavement markings or signs deemed appropriate to give adequate instructions to bicyclists. Bicycles usually have exclusive use of a bike lane for longitudinal travel, but must accommodate cross-flows by motorists at driveways and intersections, and also by pedestrians at various locations. Bike lanes are used only in the same direction of motor vehicle flow and, therefore, must be on both sides of the street.

- *Class III:* A Class III bikeway, or “shared route”, is a roadway identified as a bicycle facility by “bike route” signing only. There are no special lane markings, and bicycle traffic shares the roadway with motor vehicles. Special regulations may be enacted and posted along such facilities to control motor vehicular speeds or restrict parking to enhance bicycling safety. Class III lanes are mainly to provide continuity in the bikeway system by connecting discontinuous segments of Class I and/or Class II facilities, or to provide a link to specific destination points.

Status. Bikeways are described in terms of their current implementation status. The description may also identify specific considerations which may impact the implementation of a new bikeway or the improvement of an existing bikeway.

Access. Each bikeway is described in relation to its place in the overall bikeways network. Connections with other bikeways, including those in neighboring cities, are listed.

The following recommendations as identified in the City of Rancho Palos Verdes Conceptual Bikeways Plan pertain to the Project area:

Resort Hotel Area

Hawthorne Boulevard - Southern Segment

Segment Location: This segment begins at the intersection with Crest Road and extends along Hawthorne Boulevard to Palos Verdes Drive West.

Type: Class II.

Status: This is an existing bike lane. A pedestrian trail is proposed on the northbound side of this road, parallel to the bikeway.

Access: This bikeway connects to the Los Verdes Segment (A3), the Palos Verdes Drive West (E1, E2 and E3) and Crest Road (D1 and D2) segments.

Palos Verdes Drive West - Golden Cove Segment

Segment Location: This segment begins at the intersection with Hawthorne Boulevard and extends along Palos Verdes Drive West to Point Vicente.

Type: Class I (on the eastbound side of the street) and Class II along both sides of the street.

Status: There is an existing Class II bikeway along the entire length of the segment on the eastbound side of the roadway. Along the westbound side of the roadway, the bikeway extends from Point Vicente and ends near the existing St. Paul's Lutheran Church. This portion of the bikeway should be extended from its current end point to the intersection with Hawthorne Boulevard. Providing both Class I and Class II bikeways along the eastbound side of the street would permit bicycle access for both recreational (slower speed) and serious bicyclists. A pedestrian trail is proposed parallel to the bikeway for the eastbound side of the street.

Access: This bikeway connects the Sunset (E2) and Point Vicente (E4) segments of the bikeway.

Palos Verdes Drive South - Point Vicente Segment

Segment Location: This segment begins at Point Vicente and extends eastward to the County Fishing Access.

Type: Class I (on the eastbound side of the street) and Class II along both sides of the street.

Status: There is an existing Class II bike lane. Providing both Class I and Class II bikeways would permit bicycle access for both recreational (slower speed) and serious bicyclists. A pedestrian trail is proposed parallel to the bikeway on the eastbound side of the road.

Access: This bikeway connects the Golden Cove Segment (E3) to the Long Point Segment (E5).

Palos Verdes Drive South - Long Point Segment

Segment Location: This segment begins at the County Fishing Access and extends along Palos Verdes Drive South to the entrance to Long Point.

Type: Class I (on the eastbound side of the street) and Class II along both sides of the street.

Status: There is an existing Class I bikeway on the south side of the road. It has design flaws, however, and is not heavily used. Improvements to this segment of the bikeway should be included as part of any future development proposal for the Long Point property. Providing both Class I and Class II bikeways would permit bicycle access for both recreational (slower speed) and serious bicyclists. A pedestrian trail is proposed parallel to the bikeway on the eastbound side of the road.

Access: This connects segments along Palos Verdes Drive South (E4 and E6).

CITY DEVELOPMENT CODE

According to City Ordinance No. 320, Chapter 16.20, *Dedications and Improvements*, §16.20.100, four (4.0) acres of parkland must be dedicated for every 1,000 persons. As of January 1, 2000, the City's population estimate was a total

of 44,950 persons.[7] Based on this population estimate, 179.80 acres of local parkland would be required to meet the City's target goal. As previously noted, the total parkland acreage which currently exists within the City is 444.97 acres; or a total of 648.97 acres including the two golf courses. Accordingly, the City presently exceeds their target goal for parkland.

PROGRAM OF UTILIZATION

The approximately 64.9-acre UPVA is a part of a larger 75.53-acre parcel transferred to the City of Rancho Palos Verdes in October 1979 by the United States Department of the Interior, National Park Service, carrying a deed restriction requiring use "for public park and public recreation area purposes".[8] Refer to Section 5.7-1, *Land Use and Relevant Planning*, for further discussion regarding the Program of Utilization.

IMPACTS

Significance Criteria

Pursuant to Appendix G, Environmental Checklist of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant adverse impact on public services if it results in any of the following:

A project would have a significant impact if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (refer to Impact Statement 5.13-1);

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment (refer to Impact Statement 5.13-2; refer to the *Impact* discussions in Sections 5.1 through 5.12 for analyses of the project's effects on the environment from the proposed recreational facilities); and

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an

[7] California State Department of Finance, Report E-1, April 2000.

[8] Quitclaim Deed, October 30, 1979, Exhibit A, Page 1.

environmental effect (refer to Impact Statements 5.13-3 through 5.13-7).

EXISTING RECREATIONAL ACTIVITY

5.13-1 *Project implementation may increase the use of existing neighborhood and regional parks and other recreational facilities thereby creating the potential for physical deterioration of each facility. Analysis has concluded that a less than significant impact would occur in this regard.*

The proposed Project does not involve the development of housing which would 9result in a direct impact upon existing recreational facilities. However, it is anticipated that the proposed development would increase the use of existing parks and facilities as a result of the employment created by the proposed resort hotel and golf course uses. More specifically, the proposed Project has the potential to result in an indirect growth in the City's population since the potential exists that "future employees" (and their families) may choose to relocate to the City, thereby increasing the usage of existing recreational facilities.

Implementation of the proposed Project has the potential to generate approximately 700 Full-time Equivalent Employees (FTEE). Estimating the number of future employees who would choose to relocate to the City is highly speculative. In consideration of this uncertainty, a “worst case” analysis of impacts to existing recreational facilities was conducted assuming that all new employees would relocate to the City. Although highly unlikely, if every new employee of the proposed Long Point Resort were to relocate to the City, Project implementation would represent a population increase of approximately 2,050 persons.[9] Pursuant to the City’s policy of providing four acres of local parkland per 1,000 persons, the employment generated by the proposed Project would have the potential to create a demand for approximately 8.2 acres of parkland. The Long Point Resort Project proposes the development of 10.2 acres of various recreational features including public parking, parks, trails, coastal access, and a shore area (refer to Section 3.0, *Project Description*, and Impact Statement 5.13-2, for further details regarding the proposed recreational facilities). Of these 10.2 acres, approximately 5.0 acres of general public parkland are proposed. Further, the Project involves development of a nine-hole golf course and a practice facility totaling 71 acres. The Resort Hotel Project proposes the development of recreational uses in excess of the demand it would potentially create, as well as provide a net increase in the total amount of recreational facilities which would be available in the City. Therefore, Project implementation would not increase the use of existing facilities such that substantial

[9] It should be noted that sufficient area does not exist to allow for construction of 700 dwelling units in the City.

physical deterioration would occur and a significant impact is not anticipated in this regard.

It should also be noted that the proposed development has the potential to increase the use of existing parks and facilities as a result of the transient population associated with the resort hotel. As many as 550 new guestrooms and 32 villas may be developed as part of the Long Point Resort. Based on an average of 2.0 persons per guestroom, the City's seasonal population may increase by approximately 1,164 persons as a result of the proposed guestrooms, thereby potentially increasing the usage of existing recreational facilities. However, as the proposed hotel is designed as a destination resort offering onsite recreational amenities including a spa/health center, pools, decks, landscaped grounds, walkways, etc., as well as the golf course and practice facility, a significant impact to existing recreational facilities is not anticipated in relation to the transient population.

PROPOSED RECREATIONAL ACTIVITY/FACILITIES

5.13-2 *The proposed Project would include recreational facilities which may result in physical impacts on the environment. Compliance with the City Development Code and implementation of mitigation measures specified in Sections 5.1 through 5.12 of this EIR would reduce impacts to a less than significant level.*

Included within the proposed Project are new public recreational facilities and linkages in addition to the public-play 9-hole regulation-length golf course and practice facility. Approximately 11.1 miles of new public bicycle trails, equestrian trails, pedestrian trails and stairways, and coastal access ramps, are proposed. Additionally, a total of 100 new coastal access parking spaces and 825 new visitor-serving parking spaces for the resort hotel and public-use golf course/clubhouse are proposed. Overall, Project implementation would provide a total of 81.2 acres of recreational facilities, including 10.2 acres of passive recreational uses and 71 acres of active recreational uses. The proposed recreational facilities are described in detail in Section 3.0, *Project Description*.

Sections 5.1 through 5.12 of this EIR include analyses of the Project's effects on the environment resulting from the proposed recreational facilities, as well as other Project components. Analyses in these sections has concluded that Project implementation would result in a less than significant impact after compliance with the City Development Code and implementation of mitigation measures.

As previously noted, a total of 648.97 acres of recreational facilities presently exist within the City. This represents an excess of approximately 469.17 acres of parkland over the City's target goal of 179.8 acres (based on the City's current population estimate of 44,950 persons and their target goal of four acres of parkland per 1,000 persons). Implementation of the proposed Project has the potential to

create a demand for an additional 8.2 acres of parkland. Additionally, the proposed Project would require removal of approximately two acres of the existing Civic Center Park for golf course use. However, the Project also proposes the development of approximately 5.0 acres of general public parkland, 5.2 acres of public trails, staging areas, and coastal access ways, as well as a 71-acre golf course/practice facility. Accordingly, Project implementation would result in a net increase in recreational facilities in the City of 71 acres, therefore, a significant impact is not anticipated in this regard. Further, the City would continue to exceed their target goal for parkland after Project implementation.

PATH AND TRAILS NETWORK

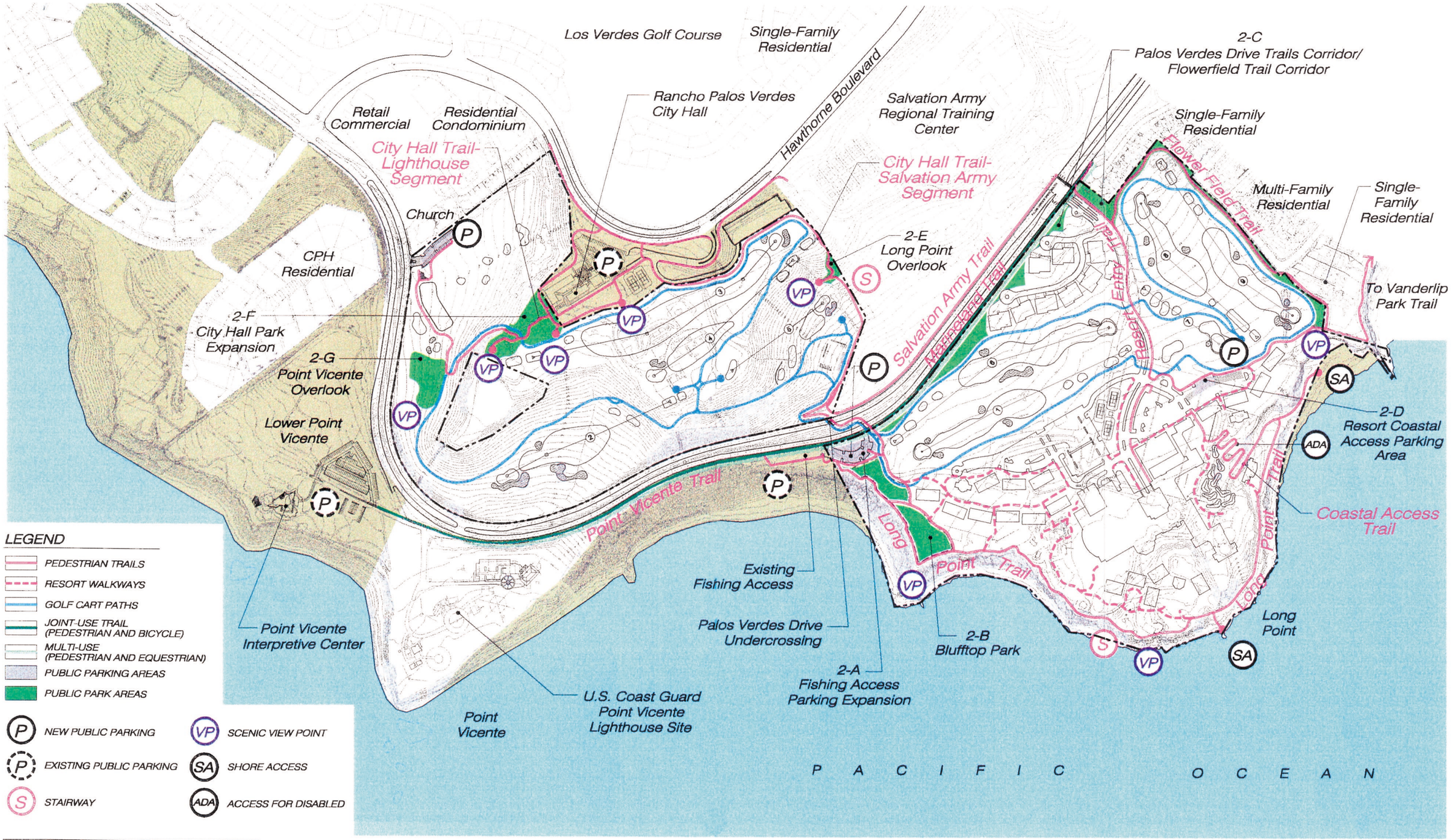
5.13-3 *The proposed Project would include a trails network which may have a physical effect on the environment. A less than significant impact would occur following compliance with the City Development Code and implementation of mitigation measures specified in Sections 5.1 through 5.12.*

A variety of pedestrian trail links are proposed within the Project area, including single-use, joint-use, and multi-use trails, an entry drive sidewalk, resort walkways, coastal access walkways, and a coastal bluff-top walkway with scenic viewpoints (refer to Exhibit 5.13-1, *Proposed Recreational Facilities*). The proposed development is comprised of 11.1 miles of new public bicycle trails, equestrian trails, pedestrian trails and stairways, and coastal access ramps, including the following:

- 3.8 miles of new general public trails in the RHA and the renovation/upgrading of two historic coastal access ramps originally constructed for the Marineland aquatic park;
- 1.3 miles of new resort walkways on the RHA in and around the resort facilities and buildings;
- 0.9 miles of new general public trails/stairways in the UPVA;
- 3.2 miles of golf cart paths for use by the general public during non-golfing hours;
- 0.2 miles of new off-site public regional trails adjacent to, however, outside of the RHA;
- 0.5 miles of new off-site public regional trails along Palos Verdes Drive South, connecting the RHA with the City's Point Vicente Interpretive Center; and

- 1.2 miles of new off-site general public trails in the Civic Center area, however, outside of the UPVA.

As illustrated on Exhibit 5.13-1, *Proposed Recreational Facilities*, the proposed Project involves the development of a network of trails, paths, and walkways within the RHA. The following is a description of the Project's proposed trails network:



NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

RBF CONSULTING

SOURCE: FORMA

JN 10-034194-7978 • 10/00

LONG POINT RESORT EIR

Proposed Recreational Facilities

Exhibit 5.13-1

Resort Hotel Area

The network of trails proposed in the RHA would be generally configured to result in the creation of a loop. This proposed network is described as follows:

Palos Verdes Drive Trail Corridor/Flower Field Trail Corridor. Planning Area 2-C (refer to Exhibit 3-4, *Land Use Map*) is a 3.8-acre linear recreation area which runs along the entire length of Palos Verdes Drive South adjacent to the RHA, and continues down the easterly edge of the RHA to a public coastal access point.

Included in Planning Area 2-C is the Marineland Trail, an 8-foot-wide joint-use trail (pedestrian and bicycle) running along the ocean side of Palos Verdes Drive South.[10] This trail forms the northern leg of the RHA trails loop. The Marineland Trail would connect the main entry of the RHA with the expanded County Fishing Access Parking Lot. Refer to Exhibit 5.13-1, *Proposed Recreational Facilities*.

The Flower Field Trail parallels the eastern edge of the RHA and forms the eastern leg of the RHA trails loop. This four-foot wide pedestrian trail would connect the Palos Verdes Drive Trail with the Vanderlip Park Trail. Additionally, this trail would provide access to a proposed scenic view point in the southeastern corner of the RHA.

Long Point Bluff/Shore Trail. A coastal access pathway system would serve the general public, as well as the hotel guests and visitors, as illustrated in Exhibit 5.13-1. From the County Fishing Access Parking Expansion and Bluff-Top Park (Planning Areas 2-A and 2-B), this pedestrian trail would meander as a 4-foot-wide pathway adjacent to the bluff continuing down to the shore at the far southeast corner of the Resort. The Long Point Trail would form the western and southern legs of the RHA trails loop. This trail would connect to the Flower Field Trail and to the Vanderlip Park Trail to the southeast via the segment which runs along the tip of Long Point on the ocean side of the resort hotel.

Two scenic view points would be provided along the Long Point Trail for views of the Pacific Ocean. Also provided along this trail is a stairway and a shore access point proposed at the southern most portion of the RHA. Where grades are relatively gentle, components of this pathway would take on a more native appearance, and would be constructed of stabilized decomposed granite or similar visually soft material that would accommodate pedestrians.

Resort Entry Trail. The Resort Entry Trail would serve the general public, as well as the resort hotel guests and visitors. This pedestrian trail would provide access

[10] The Marineland Trail is in addition to a grade-separated, 5-foot-wide walkway on the seaward side of the trail.

from the Marineland Trail, into the RHA, proceed to the Resort Hotel Coastal Access Parking Area, and ultimately connect with the Coastal Access Trail.

Long Point Coastal Access Trail. The Long Point Coastal Access Trail would serve the general public, as well as the resort hotel guests and visitors. This trail is a variable-width pedestrian trail/emergency vehicle accessway leading from the westerly edge of the Resort Coastal Access Parking Area (Planning Area 2-D) winding down in a southerly direction, then connecting with the Long Point Trail and a coastal access ramp down to the shore. This trail would provide access for the disabled from the bluff to it's intersection with the Long Point Bluff/Shore Trail.

Coastal Access Ramps. Although for the most part rocky, the shoreline below the bluff that runs along the RHA would be accessible to the general public, resort guests, and resort visitors. The Project may also provide for continuing public use, as well as identify new programs to educate the public and resort guests and residents about the marine resources in this area.

Two existing coastal access ramps associated with Marineland would be maintained and enhanced within the RHA in order to provide a safe transition from the bluff-top to the rocky shoreline as illustrated in Exhibit 5.13-1.

One – identified as the Easterly Coastal Access Ramp – is accessible from the Long Point Coastal Access Trail, and leads down to a previous pier-head near the easterly end of the RHA.

The other – identified as the Westerly Coastal Access Ramp – drops from a low depression along existing bluff-top access road near the tip of Long Point, down to a portion of the shoreline in the middle of the RHA (i.e., at the terminus of the Long Point Bluff Trail and the beginning of the Long Point Shore Trail). This access ramp separates the resort hotel and grounds from the more rugged Conservation Area 1-A, Bluff/Habitat Reserve, to the west. Minimal improvements (e.g., stairs, railing, etc.), where necessary to create safe public access would be provided.

An additional coastal accessway adjacent to the Sunrise Pool would provide Access for the disabled down to the shore. A meandering ramp/walkway is proposed on the south side of the Sunrise Pool in order to provide continued ADA-compliant coastal access from the level of the bluff down to the level of a public restrooms and trail overlook at the level of the Lower Pool.

Upper Point Vicente Area

City Hall Trail- Salvation Army Segment. This pedestrian trail would extend from the undercrossing of Palos Verdes Drive South, (near the expanded County Fishing Access Parking Lot) into Golf Course and Practice Facility Planning Area 3-B. The pedestrian trail would parallel the golf cart path northerly to the Maintenance Facility, and then rise to the Long Point Overlook (PA 2-E) where the public path would climb via an at-grade stairway up to the elevation of the tees for Hole 4, and finally runs as a trail westerly along the UPVA to the City Hall site.

City Hall Trail- Lighthouse Segment. This pedestrian trail would connect the City Hall Facilities and City Hall Park Expansion through the central portion of the UPVA, between Hole 3 and the practice facility. This trail would allow general public access from the City Hall facilities down to the Point Vicente Overlook and parking area. This trail would provide views of the Point Vicente Lighthouse and Interpretive Center below, as well as the Pacific Ocean to the south and west.

Additionally, a system of public trails and scenic view points is proposed around the perimeter of City Hall, with improved access to and from existing sidewalks and bicycle trails along Hawthorne Boulevard, all outside the Resort.

Analysis

As identified in the General Plan, transportation networks impose environmental impacts wherever they are located including short-term construction-related impacts and long-term impacts (i.e., increased human activity). Development of the proposed trails network would result in physical effects on the environment. These are addressed in Sections 5.1 through 5.12 of this EIR. Analyses in these Sections has concluded that a less than significant impact would occur after compliance with the City Development Code and implementation of the mitigation measures specified in each of the respective sections.

Additionally, it should be noted that in the case of path and trail networks, positive effects often outweigh the negative effects. The positive effects resulting from implementation of the proposed trails network include the following:

- Increased recreational opportunities for the general public and Hotel guests;
- Increased accessibility to many areas within the RHA and the UPVA presently inaccessible to the public; and
- In the natural environment, the lack of designated trail systems would allow for unrestrained disruption of delicate eco-systems.

5.13-4 *The Project's proposed trails network may conflict with the policies and recommendations identified in the General Plan and Coastal Specific Plan. Analysis has concluded that the Project would be*

consistent with the recommendations and a less than significant impact would occur.

General Plan

As previously noted, the General Plan contains recommendations for development of a path and trails network which pertains to the Project areas. The following analysis evaluate's the Project's compliance with these recommendations:

Bikeways.

Resort Hotel Area

- Palos Verdes Drive South/25th Street alignment of the Peninsula Loop: The proposed Marineland Trail would satisfy this recommendation since it is proposed as a joint-use trail which would provide for both pedestrian and bicycle use.

Upper Point Vicente Area

- Radial trail along Hawthorne Boulevard: This bikeway has already been implemented. Therefore, the Project would not conflict with this recommendation.

Walkways & Beach Access.

Resort Hotel Area

- Palos Verdes Drive South/25th Street alignment of the Peninsula Walkways Loop Trail: The proposed Marineland Trail would satisfy this recommendation since it is proposed as a joint-use trail which would provide for pedestrian use. Additionally, a grade-separated, 5-foot-wide walkway is proposed on the seaward side of this Trail.

- Coastal Bluff Trail: The Flower Field Trail would satisfy this recommendation since it is proposed as a pedestrian trail in an alignment generally consistent with that identified in Figure 21.

- Potential Beach Access at RHA: The existing Easterly Coastal Access Ramp is proposed to be maintained and enhanced, thereby satisfying this recommendation. Additionally, the proposed Project would maintain and enhance a second ramp: the Westerly Coastal Access Ramp.
- Potential Beach Access at Point Vicente Fishing Access: The proposed Project would involve an expansion to the existing parking area for this existing fishing access. This proposed improvement would be considered consistent with this recommendation.

Upper Point Vicente Area

- Urban trail along Hawthorne Boulevard: The segment of the City Hall Trail proposed parallel to Hawthorne Boulevard and along the northern boundary of the UPVA would satisfy this recommendation.

Equestrian Trails.

Palos Verdes Drive South: The multi-use trail proposed parallel to the Marineland Trail would satisfy this recommendation since it would provide for both pedestrian and equestrian use.[11]

Coastal Specific Plan[12]

Resort Hotel Area

- Primary path/trail along Rancho Palos Verdes Drive South/West: The proposed Marineland Trail would satisfy this recommendation since it is proposed as a joint-use trail which would provide for pedestrian use. Additionally, a grade-separated, 5-foot-wide walkway is proposed on the seaward side of this Trail.

- Secondary trail at Marineland entry: The proposed Resort Entry Trail would satisfy this recommendation since one of it's segments would provide access from the Marineland Trail, into the RHA, proceed to connect with the Flower Field Trail, and ultimately connect with the Vanderlip Park Trail.

- Major bluff access point at RHA: The existing Easterly Coastal Access Ramp is proposed to be maintained and enhanced, thereby satisfying this recommendation. Additionally, the proposed Project would maintain and enhance a second ramp: the Westerly Coastal Access Ramp.

- Major bluff access point at Point Vicente Fishing Access: This access point is presently provided. The proposed Project would be considered consistent with this recommendation since it would enhance the existing parking (see following discussion).

[11] It should be noted that equestrian trails were eliminated in a 1978 Amendment to the General Plan. Resolution No. 78-81 (Exhibit A).

[12] As discussed in Section 3.0, *Project Description*, only the RHA is located within the Coastal Specific Plan (CSP) area.

- Parking/turnout at Point Vicente Fishing Access: The proposed expansion to the existing parking area for this existing fishing access would be considered consistent with this recommendation.

Based on the analysis, the Project's proposed trails network would not conflict with the recommendations made in the General Plan and Coastal Specific Plan. Therefore, a less than significant impact would occur in this regard. Additionally, it should be noted that implementation of the proposed Project would be considered a beneficial impact with respect to the paths and trails network.

PARKS MASTER PLAN

5.13-5 *The recreational components of the proposed Project may conflict with the City's Parks Master Plan. Analysis has concluded that a less than significant impact would occur in this regard.*

As previously noted, the Parks Master Plan (1989) contains recommendations for park development which pertain to the Project areas. These recommendations were outlined in the *Existing Conditions* discussion and are evaluated in terms of the Project's compliance with each as follows:

Upper Point Vicente Area

Develop a Senior Citizen's Center at Pt. Vicente Park/Civic Center. The Project's proposed Planning Area 2-F, *City Hall Park Expansion*, involves a 1.6-acre expansion to this existing facility. The expansion proposes passive recreational uses (i.e., ocean viewing, environmental interpretation, photography, and picnics). Additionally, the proposed Project involves improvements to the Civic Center Area including reconfiguration and expansion of the Hall parking area to include a total of 93 parking spaces (refer to Exhibit 3-8, *Concept Plan for City Hall Facilities*).

Although the proposed Project would not involve the development of a Senior Citizen's Center, it's implementation would not preclude future development of such a use in the Civic Center area. Therefore, the proposed Project would not conflict with this recommendation.

A Municipal Golf Course at Point Vicente Park. The proposed Project is consistent with this recommendation since it proposes the development of a golf course, as well as utilizes neighboring privately held property (i.e., RHA).

Complete Pt. Vicente Park/Civic Center. The Project proposes to relocate the City's maintenance yard to the location where this athletic field presently exists. Therefore, the Project would be in conflict with this recommendation. However, this is considered a less than significant impact since this field has never been utilized.

Point Vicente Park/Civic Center Additional Facilities. The proposed Project is partially consistent with this recommendation since it involves the development of several pedestrian trails, including the City Hall Trail- Lighthouse Segment and the City Hall Trail- Salvation Army Segment, as well as others, throughout the UPVA *(refer to Exhibit5.13-1, Proposed Recreational Facilities*). Although the proposed Project would not involve the development of a public restroom, paddle tennis courts, or an amphitheater, it's implementation would not preclude future development of such uses on the Point Vicente Park site. Therefore, the proposed Project would not conflict with this recommendation.

High Priority Park Facility. The proposed Project would involve the development of a golf course on the UPVA which has been established as high priority. Development of the proposed golf course would therefore be considered consistent with this recommendation. Additionally, the recommendation to expand the Point Vicente Park site would be partially fulfilled with the proposed Project since various pedestrian trails would be developed (refer to the *Path and Trails Network* discussion below).

Resort Hotel Area

Use of Neighboring Property. The proposed Project is consistent with this recommendation as it proposes to utilize the RHA, a privately-held property neighboring the UPVA, for the development of a golf course.

Overall, the proposed Project would not conflict with the Parks Master Plan since the proposed recreational facilities would be generally consistent with the Plan's recommendations. Therefore, a less than significant impact would occur in this regard.

PALOS VERDES CONCEPTUAL TRAILS PLAN

5.13-6 *The recreational components of the proposed Project may conflict with the City's Conceptual Trails Plan. Analysis has concluded that a less than significant impact would occur in this regard.*

As previously noted, the Conceptual Trails Plan contains recommendations for trail development which pertains to the Project areas. These recommendations were outlined in the *Existing Conditions* discussion and are evaluated in terms of the Project's compliance with each as follows:

Upper Point Vicente Area

- Palos Verdes Loop Trail - City Hall Segment: The proposed City Hall Trail - Lighthouse Segment would satisfy the intent of the recommendation since it is proposed as a pedestrian trail extending from City Hall west, to the

proposed park expansion and additional public parking, and to the east through the City Hall area. In addition, this proposed route would provide a connection to the City Hall Trail - Salvation Army Segment. Scenic viewpoints would also be provided for pedestrian stopping point with a water fountain and rustic seating.

- Palos Verdes Loop Trail - Salvation Army Segment: The proposed Salvation Army Trail would satisfy the intent of the recommendations since it is proposed as multi-purpose trail extending from an undercrossing of Palos Verdes Drive South segment on the western boundary of the Salvation Army parcel above Palos Verdes Drive South. It extends eastward to a point just above Palos Verdes Drive South on the parcel's eastern boundary. The trail would be separated from the road by a grade change, and kept as far from the road as possible. This Trail provides access to the City Hall Trail-Salvation Army Segment to the north, Point Vicente Trail to the west, and to the Long Point Trail and coastal access to the south.

Resort Hotel Area

- Palos Verdes Drive Trail - Marineland Segment: The proposed Marineland Segment would satisfy the intent of the recommendation since it is proposed as a Palos Verdes Drive Trail Corridor/Flower Field Trail Corridor. Planning Area 2-C is a 3.8-acre linear recreation area which runs along the entire length of Palos Verdes Drive South adjacent to the RHA, and continues down the easterly edge of the RHA to a public coastal access point.

  Included in Planning Area 2-C is the Marineland Trail, an 8-foot-wide joint-use trail (pedestrian and bicycle) running along the ocean side of Palos Verdes Drive South.[13] This trail forms the northern leg of the RHA trails loop. The Marineland Trail would connect the main entry of the RHA with the expanded County Fishing Access Parking Lot. This trail would provide access through an undercrossing of Palos Verdes Drive South to the Salvation Army Trail, and City Hall Trails to the north.

- Coastal Bluff Trail System - Long Point Trail Segment: The Project proposes a Long Point Bluff/Shore Trail System to satisfy the intent of the recommendations since this trail system would provide connectivity to existing trails. Further, two additional public parking areas would be provided within the Long Point development, in addition to a Coastal Access extending from the resort area.

[13] The Marineland Trail is in addition to a grade-separated, 5-foot-wide walkway on the seaward side of the trail.

- Coastal Access Trails - Flower Field Trail Segment: The proposed Flower Field Trail Segment is part of the Palos Verdes Drive Trail Corridor/Flower Field Trail Corridor. Implementation of this segment would satisfy the intent of the recommendation since it is part of the proposed Planning Area 2-C, a linear recreation area which runs along the entire length of Palos Verdes Drive South adjacent to the RHA, and continues down the easterly edge of the RHA to a public coastal access point. This point-to-point trail begins on the north side of Palos Verdes Drive South, crosses at Crestmont Lane to the east side of the entrance road to the Long Point Parcel, and then extends southward to the bluff. The Fox Field Trail is proposed as a four-foot wide pedestrian trail providing coastal access, with access to resort coastal parking.

- Other Trails - The Project proposes several other trails to satisfy the intent of the recommendations since this trail system would provide connectivity to existing trails and additional coastal access opportunities. These trails include; Resort Entry Trail, Long Point Coastal Access Trail. In addition, two coastal access ramps with be maintained and enhanced, and a proposed additional coastal accessway adjacent to the Sunrise Pool would provide Access for the disabled down to the shore.

Overall, the proposed Project would not conflict with the Conceptual Trails Plan since the proposed recreational facilities would be generally consistent with the Plan's recommendations. Therefore, a less than significant impact would occur in this regard.

PALOS VERDES CONCEPTUAL BIKEWAYS PLAN

5.13-7 *The recreational components of the proposed Project may conflict with the City's Conceptual Bikeways Plan. Analysis has concluded that a less than significant impact would occur in this regard.*

As previously noted, the Conceptual Bikeways Plan contains recommendations for bikeway development which pertains to the Project areas. These recommendations were outlined in the *Existing Conditions* discussion and are evaluated in terms of the Project's compliance with each as follows:

Upper Point Vicente Area

- Hawthorne Boulevard - Southern Segment: The proposed Hawthorne Boulevard - Southern Segment has already been implemented. Therefore the Project would not conflict with the recommendations.

- Palos Verdes Drive West - Golden Cove Segment: This segment is not adjacent to the site, however, an additional joint use pedestrian/bicycle

pathway is proposed adjacent to Palos Verdes South roadway, extending from the proposed Long Point Project within the Point Vicente Trail. This trail would connect to the existing trails system extending to the Palos Verdes Drive West - Golden Cove Segment to the north.

Resort Hotel Area

- Palos Verdes Drive South - Point Vicente Segment: This segment is partially adjacent to the site, with an existing Class II bike lane. an additional joint use pedestrian/bicycle pathway is proposed adjacent to Palos Verdes South roadway, extending from Point Vicente within the Point Vicente Trail, transitioning to the Long Point Bikeway segment to the eastern edge of the RHA, consistent with the bikeway network.

- Palos Verdes Drive South - Long Point Segment: This segment is partially adjacent to the site, with an existing Class I bike lane. An additional joint use pedestrian/bicycle pathway is proposed adjacent to Palos Verdes South roadway, extending from fishing access point within the Point Vicente Trail, extending to the Long Point entry. This bikeway would be part of the Marineland Trail Segment within the Palos Verdes Drive Trail Corridor/Flower Field Trail Corridor. This trail is proposed as a 8-foot-wide joint-use trail (pedestrian and bicycle).

Overall, the proposed Project would not conflict with the Conceptual Bikeways Plan since the proposed recreational facilities would be generally consistent with the Plan's recommendations. Therefore, a less than significant impact would occur in this regard.

PROGRAM OF UTILIZATION

As detailed in Impact Statements 5.13-2 and 5.13-4, the proposed Project would involve development of new public recreational facilities and linkages in addition to a public-play 9-hole regulation-length golf course and a practice facility. The Project's proposed recreational facilities include both active and passive recreational uses. Refer to Section 5.7, *Land Use and Relevant Planning*, for further discussion regarding the Project's consistency with the POU.

CUMULATIVE

5.13-8 *Cumulative development may increase the use of existing recreational facilities, thereby creating the potential for physical deterioration of each facility. Additionally, cumulative development may include recreational facilities with the potential to result in physical impacts on the environment. Mitigation necessary for reducing Impacts on recreational facilities to a less than significant level would be identified on a project-by-project basis.*

The proposed Project would contribute to the cumulative need for more recreational park space and related facilities. Additionally, the proposed Project would increase the use of existing facilities. However, consistent with the City's park fee and land dedication requirements, the developers of each cumulative project would pay in-lieu fees or dedicate open space lands. Cumulative projects would mitigate their incremental impact on citywide recreational needs, and a significant cumulative impact would not occur. Further, as previously noted, the City presently exceeds it's target goal for parkland.

MITIGATION MEASURES

This section directly corresponds to the identified impact statements in the *Impacts* section.

EXISTING RECREATIONAL ACTIVITY

5.13-1 No mitigation measures are required.

PROPOSED RECREATIONAL ACTIVITY

5.13-2 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.

PATH AND TRAILS NETWORK

5.13-3 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.

5.13-4 No mitigation measures are required.

PARKS MASTER PLAN

5.13-5 No mitigation measures are required.

PALOS VERDES CONCEPTUAL TRAILS PLAN

5.13-6 No mitigation measures are required.

PALOS VERDES CONCEPTUAL BIKEWAYS PLAN

5.13-7 No mitigation measures are required.

CUMULATIVE

5.13-8 No mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

No unavoidable significant impacts related to parks and recreational facilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.

6.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

6.1 THE RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

If the proposed Project is approved and constructed, a variety of short-term and long-term impacts would occur on a local level. During Project grading and construction, portions of surrounding uses may be temporarily impacted by dust and noise. Short-term erosion may occur during grading. There may also be a minor increase in dust and vehicle emissions caused by grading and construction activities. However, these disruptions would be temporary, and may be mitigated to a large degree through mitigation cited in this report and the standards for construction as cited in Section 17.56.020 of the Rancho Palos Verdes Development Code which is entitled *Conduct of Construction and Landscape Activities*.

Ultimate development of the Project site would create long-term environmental consequences that are associated with a transition in land use. The long-term effects of the proposed Project and subsequent development may impact the physical, aesthetic, and human environments. Long-term physical consequences of development include: increased traffic volumes, additional noise created by traffic generated from the Project, incremental increased demands for public services and utilities, and increased energy and natural resource consumption. Long-term biological resource consequences associated with grading, construction and landscaping would also include the replacement of on-site vegetation with other plant varieties. Long-term visual/aesthetic impacts include alterations in views across the site. Incremental degradation of local and regional air quality would also be a long-term impact.

Benefits to the community resulting from Project implementation include the following:

- Additional tax revenue and related development fees;
- Further employment opportunities for the City;
- Additional public recreational facilities;
- Enhancement of Resort Hotel Area's (RHAs) appearance as it relates to its surroundings;

- New conserved habitat areas that would expand and preserve in perpetuity areas of native vegetation; and

- control of the currently uncontrolled site runoff thereby stabilizing the coastal bluffs and improving the marine environment.

6.2 IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Approval of the proposed Project would cause irreversible environmental changes. Implementation of the proposed Project would result in the following changes:

- Commitment of land, which would be physically altered.

- Vegetation removal for grading and construction activities. The Project would provide native habitat conservation and enhancement, restored and new habitat, as well as replacement landscaping through and around the Resort.

- Alteration of the human environment as a consequence of the development process. The Project represents an enhanced commitment to commercial uses which intensifies land uses on the RHA and a partial conversion of undeveloped land on the Upper Point Vicente Area (UPVA).

- Utilization of various new raw materials, such as lumber, sand and gravel for construction. Some of these resources are being depleted worldwide. The energy consumed in development and maintaining the site may be considered a permanent investment.

- Incremental increases in vehicular activity in the surrounding circulation system, resulting in associated increases in air emissions and noise levels.

- Elimination of onsite historical resources. Unless mitigated, Project development would significantly impact resources which are important contributors to the history of the Palos Verdes Peninsula.

6.3 GROWTH INDUCING IMPACTS

Section 15126.2 of the CEQA Guidelines requires a discussion of the ways in which a proposed project could foster economic or population growth, either directly or indirectly, in the surrounding environment. Growth-inducing impacts include projects which would remove obstacles to population growth and projects which

may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The proposed Project does not involve the development of housing which would result in a direct growth in the City's permanent population. However, the employment created by the proposed uses has the potential to result in an indirect growth in the City's population since the potential exists that "future employees" (and their families) may choose to relocate to the City. It is anticipated that the proposed improvements would result in an approximate net employment increase of 700 full-time equivalent employees (FTEE).[1] It is further anticipated that the majority of the employment created would involve service occupations.

Based on the California Department of Finance criteria of 2.927 persons per household[2], an increase of 700 employees and their families has the potential to represent a total of 2,050 persons. In the unlikely event that all 2,050 persons would relocate to the City of Rancho Palos Verdes, the influx would result in an approximate 5 percent increase over the City's current population estimate of 44,950 persons.[3]

The potential increase in population is not anticipated to result in a significant growth inducing impact for the following two reasons:

- While the potential exists that a certain unknown number of new employees may choose to relocate to the City, it is not anticipated that this number would be substantial since the housing values and rents would not be within the means of most of the future employees who would fill service occupations. This determination is based on two primary factors. Firstly, the City's present median property value is $689,239[4] and present average monthly rent is $2,600[5]. Of the incorporated cities in Los Angeles County, Rancho Palos Verdes possesses among the highest average land and dwelling unit values. The majority of the employment created would involve Service occupations which would be in the low-income category. The City's

[1] Telecon: Michael Mohler, Destination Development Corporation, July 10, 2000.

[2] California Department of Finance, Table 2, *City/County Population and Housing Estimates*, January 1, 2000

[3] U.S. Department of Finance, Report E-1, 2000.

[4] Second Quarter Sales Statistics Comparison, Palos Verdes Peninsula Area Single Family Homes (Rancho Palos Verdes Column), William O'Bryan and Walter Mihata, 2000. www.realybits.com/qtrrptpv2.htm

[5] Estimate is based on telephone conversation with Ms. Marilyn Pake of Prudential California Realty, October 4, 2000.

housing values and rents, as well as the anticipated income of the future employees, would preclude the majority of the new employees from relocating to the City; and

- In 1989, approval by the City and Coastal Commission was granted for development of the RHA for a major destination hotel/conference center, an athletic club and a nine-hole golf course. As with the proposed Project, the existing entitlement was not anticipated to result in direct impacts to the City's population. However, the existing entitlement was estimated to generate 1,500 employees[6], which would be more than double the employment anticipated with the current proposal. Based on this employment estimate, the current proposal's potential for indirectly increasing the City's population (from employment) would not exceed the indirect increase in population anticipated with the existing entitlement.

Based on these factors, Project implementation has been concluded to not induce substantial growth in the City's permanent population, thus, a significant impact is not anticipated in this regard.

Although the proposed Project would necessitate an incremental extension of the existing water and wastewater system, the extended infrastructure is not anticipated to encourage premature or unplanned growth. This conclusion is based on the following:

- The estimated wastewater generation for the existing entitlement for RHA is approximately 140,000 gallons of wastewater per day. The currently proposed development would result in the generation of approximately 137,214 gallons per day of wastewater. Wastewater flow associated with the proposed Project would not exceed levels associated with the existing entitlement as identified in the Southern California Association of Governments' (SCAG) 1994 Regional Comprehensive Plan and Guide (RCPG). Additionally, during preparation of the 1995 California Water Service Company (CWSC) Urban Water Management Plan, development under the 1989 entitlements was assumed for the Project site. The water demand created by the current proposal of approximately 151,916 gallons per day would not exceed the water demand anticipated for the existing entitlement of approximately 271,976 gallons per day which the CWSC has projected in their Urban Water Management Plan. (Refer to Section 5.11, *Public Services and Utilities* for further discussion regarding wastewater generation and water demand).

[6] Draft EIR for the Long Point Master Plan, Myra Frank & Associates, June 1989, Page 2-43.

- The proposed Project site is surrounded with developed land or land dedicated to public use. Undeveloped areas in the Project vicinity that have the potential for increased utilization of land include the adjacent Salvation Army Regional Training Center and the U.S. Coast Guard Point Vicente Lighthouse site. It is unlikely that development of the proposed Project has the potential of encouraging the intensification of land uses on these sites.

The proposed Project is not anticipated to encourage or facilitate growth. Also, the Project is not anticipated to increase the potential for new development or intensification in any off-site areas of the City. Therefore, a significant growth inducing impact is not anticipated in this regard.

A total of 400 new guestrooms, 50 resort casitas (keyed to a maximum of 150) and 32 resort villas are included as part of the proposed Project. Based on an average of two persons per accommodation room, the City's seasonal population may increase by approximately 1,164 persons as a result of the proposed Project. The proposed Project also includes 68,000 square feet of banquet/meeting rooms, 25,000 square feet of health spa space and four restaurants and bars. The potential exists that the City's seasonal population would further increase by an unknown number of persons attending conferences held in the new meeting space, however the conference attendees may utilize hotel accommodations elsewhere in and nearby the City. Although there may be additional guests in the City, they represent a transient use, thus, a temporary increase in population. Further, seasonal population growth is anticipated for the RHA based on the hotel uses proposed under the existing entitlement. Therefore, Project implementation would not result in a significant impact with respect to seasonal population growth.

7.0 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.6, the following Section describes a range of reasonable alternatives to the proposed Project which could feasiblely attain the basic objectives of the proposed Project but would avoid or substantially lessen any of the significant effects of the Project, and evaluate the comparative merits of each alternative. The analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the Project objectives.

As noted in Section 5.2, *Air Quality*, and Section 5.9, *Noise*, Project development would result in unavoidable adverse impacts even after imposition of Project design features, standard City conditions, and mitigation measures. However, it should be noted that for both air quality and noise impacts, violations of State standards presently occur or are projected to occur in the absence of the proposed Project. The Basin is presently in non-attainment for ROG, NOx and CO air emissions. The Project would result in an increase in the severity of these existing air quality violations. Additionally, several local roadways would experience future noise levels that exceed state standards. Project generated trips would further exacerbate this projected exceedance of noise standards.

Alternatives Screened From Further Consideration

An alternative that would reduce these air quality and noise impacts would involve development of the Resort Hotel Area (RHA) with single family residential uses. Such an alternative would generate fewer average daily trips than would the proposed Project, thus resulting in fewer air quality and noise impacts. However, as previously noted, air quality and noise violations of State standards presently occur or are projected to occur even in the absence of the proposed Project. Therefore, a residential alternative would not be capable of eliminating significant adverse environmental effects or reducing them to less than significant levels. Further, a residential alternative would not attain Project objectives or be consistent with the RHA's zoning or land use designations.

Two alternative sites were considered for development of the proposed Project. Both are owned by the owner of the Long Point RHA site and are located within the City's Landslide Moratorium area.[1] The first alternative site is locally referred to as "Upper Filiorum". This approximately 228-acre site is located inland of Palos Verdes Drive South and is bounded by the Portuguese Bend Homeowners Association Area to the west, Barkentine Canyon (generally) to the north, and

[1] The City has established a moratorium in certain areas on land use processing and entitlements. Applications for development in these areas are not accepted until the moratorium has been removed. Removal of the moratorium can only be achieved if geological stability has been demonstrated.

homes on Ocean Terrace Drive to the east. The Upper Filiorum site is zoned Residential 1 (RS1, one dwelling per acre) and Open Space Hazard (OSH). Landforms on this site vary from areas with steep slopes to more readily developable level areas. The biological habitat on this site includes both coastal sage scrub and disturbed areas.

The second alternative site is locally referred to as "Lower Filiorum". This approximately 83-acre site is located east of Upper Filiorum, between the Wayfarers Chapel to the south and the Upper Abalone Cove residential area. This site is zoned Residential 1 (RS1) and Residential 2 (RS2, two dwellings per acre, 20,000-square foot lot size minimum). The majority of this site is made up of sloping areas. This site contains coastal sage scrub habitat as well as disturbed areas. A proposal (i.e, Point View Project) for Landslide Moratorium exclusion has been submitted for this property.

Development of the proposed Project on either of these alternative sites is considered infeasible since exclusion from the Landslide Moratorium area has not been granted in the City to date. Further, Project development on either of these alternative sites would result in similar overall impacts with respect to all of the environmental issue areas analyzed, with the following exceptions:

- Cultural impacts associated with the bunkers and silos would be avoided (the proposed Project would result in less than significant impacts with mitigation). However, several archaeological sites have been identified on the Lower Filiorum property which could potentially be impacted by any development of that site;
- Geological impacts would be greater than with the proposed Project (geological constraints associated with Landslide Moratorium exist on alternative sites);
- Marine resource impacts would be avoided (the proposed Project would result in less than significant impacts with mitigation);
- Health and safety impacts associated with hazardous materials would be avoided (the proposed Project would result in less than significant impacts with mitigation); and
- Land use impacts associated with the Program of Utilization would be avoided (the proposed Project would result in less than significant impacts with mitigation).

Alternatives Analysis

Potential environmental impacts associated with nine separate alternatives are compared below to impacts from the proposed Project. These alternatives were selected based upon their ability to avoid or substantially lessen the significant effects of the proposed Project, particularly with respect to aesthetic, biological, and land use impacts. These alternatives include: 1) No Development Alternative; 2) No Project Alternative; 3) With Coast Guard Site Alternative; 4) Relocate Practice Facility - Option A Alternative; 5) Relocate Practice Facility - Option B Alternative; 6) No Resort Villas - Option A Alternative; 7) No Resort Villas - Option B Alternative; 8) Program of Utilization Alternative; and 9) Point Vicente Park Enhancement Alternative. Refer to Table 7-1, *Comparison of Alternatives*, for an impact matrix which compares the Alternatives to the proposed Project. The Environmentally Superior Alternative is identified and discussed in Section 7.10.

Additionally, it should be noted that implementation of those alternatives which involve development of only the UPVA (i.e., the Program of Utilization Alternative or the Point Vicente Park Enhancement Alternative) would not preclude the development of the RHA property under either the existing entitlements (No Project Alternative) or some other modified development proposal. Implementation of an alternative which involves a combination of these aforementioned alternatives would necessitate consideration of the impacts of both alternatives combined.

7.1 NO DEVELOPMENT ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "No Development" Alternative would retain the site in its current condition. None of the improvements proposed as part of the Project and/or the existing entitlements would occur. The following discussion evaluates the potential environmental impacts associated with the No Development Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Aesthetics/Light and Glare

This alternative would not affect views across the RHA from off-site vantage points since views of the existing surface parking and remaining structures would not be replaced with views of new buildings, a golf course and landscaping. The aesthetic enhancement to the RHA resulting from Project implementation would not be achieved with this alternative since the vast parking lots and dilapidated structures would remain and views of the property would consist of these blighted structures.

Table 7-1
COMPARISON OF ALTERNATIVES

Issue	ALTERNATIVES								
	No Develop-ment	No Project	With Coast Guard Site	Relocate Practice Facility - Option A	Relocate Practice Facility - Option B	No Resort Villas - Option A	No Resort Villas - Option B	Pt. Vicente Park Enhance.	Program of Utiliza-tion
Aesthetics/Light & Glare	j	j	k	i	k	j	j	j	j
Air Quality	j	i	k	k	k	k	k	j	j
Biological Resources	j	j	j	j	j	j	j	j	i
Cultural Resources	j	j	i	k	k	k	k	j	i
Geology, Soils & Seismicity	j	i	k	k	k	k	k	j	i
Hydrology & Drainage	j	j	k	k	k	k	k	j	i
Land Use & Relevant Planning	j	j	i	k	k	k	k	j	j
Marine Resources	j	k	k	k	k	k	k	j	j
Noise	j	i	k	k	k	k	k	j	j
Public Health and Safety	j	j	k	i	k	k	k	k	j
Public Services and Utilities	j	i	k	k	k	k	k	j	j
Traffic and Circulation	j	i	k	k	k	k	k	j	j
Recreation	i	i	i	k	k	k	k	j	j

k Impact is equivalent to impact of proposed Project
j Impact is less than impact of proposed Project
i Impact is greater than impact of proposed Project

The existing views across the Upper Point Vicente Area (UPVA) of undeveloped lands and institutional buildings would remain with this alternative since development of the proposed golf course would not occur. Furthermore, habitat enhancement and restoration, changing the weedy disturbed areas to conditions native to Coastal Southern California, would not occur throughout the UPVA.

Air Quality

The demolition, grading and construction activities associated with the proposed Project would not occur with this alternative, therefore, the NOX emissions standard would not be violated (the SCAQMD's construction thresholds would be exceeded with the proposed Project). Emissions from stationary and mobile sources associated with the proposed Project facilities would not occur with this alternative; however, even without the project emissions are projected to exceed state standards.

Biological Resources

Construction-related impacts to special status vegetation types, plant species, and wildlife species would not occur with this alternative as new buildings and recreational facilities would not be constructed. Long-term impacts to vegetation and plants/wildlife (i.e., increased recreational use) with this alternative would be less than with the proposed Project, although the proposed Project would be anticipated to result in less than significant impacts with mitigation. Further, the lack of designated trail systems with this alternative would allow for continued uncontrolled disruption of sensitive habitats. No impacts to biological resources would occur with implementation of this alternative. It should be noted that none of the proposed habitat restoration would occur with this alternative.

Cultural Resources

This alternative would not result in impacts to cultural resources as excavation and construction activities associated with the proposed Project would not occur. Although Project development has the potential to have a significant impact on historical resources, with mitigation, impacts would be reduced to a less than significant level.

Geology, Soils and Seismicity

Implementation of this alternative would not expose additional people and structures to potential adverse effects associated with seismic activity, soils or geology. Although with Project implementation potentially significant impacts would occur, these would be reduced to less than significant levels with mitigation.

Hydrology and Drainage

This alternative would not result in short-term impacts to water quality associated with grading, excavation and construction activities since development of the proposed Project would not occur. Additionally, the existing quality and quantity of storm water and urban runoff would not be impacted by this alternative as the RHA and UPVA would not be altered from their current condition. The proposed Project has the potential to result in significant impacts associated with water quality and quantity, although, these would be reduced to less than significant levels with mitigation.

None of the Project's proposed drainage improvements would be implemented with this alternative. The RHA is currently covered with large areas of impermeable surfaces (i.e asphalt), as a result untreated runoff which currently flows across the site and over the bluffs would continue without the possibility of repair or improvement of water quality. This would result in continued bluff erosion and unmitigated runoff into the water offshore of Long Point.

Land Use and Relevant Planning

The General Plan Amendment, Coastal Permit and Conditional Use Permits required for the proposed Project would not be required with this alternative.

According to the General Plan Land Use Map, the RHA is designated Commercial Recreational (CR) and the UPVA is designated Recreational Passive (RP) and Institutional Public (IP).

Implementation of this alternative (i.e., that the RHA would remain undeveloped) would not be consistent with the CR designation which anticipated uses of a commercial recreational nature on the site. Additionally, this alternative would not be consistent with the General Plan which recognized the expansion of Marineland that additional limited scale commercial recreational uses were possible for various locations throughout the City.

Implementation of this alternative would be consistent with the RP and IP designations on the UPVA since retaining the site in its currently undeveloped condition would permit continued use of the site's informal paths and trails as linear recreation facilities. However, it should be noted that the trails proposed by the Project on the UPVA would not be developed with this alternative. The lack of designated trail systems would allow for continued uncontrolled disruption of the existing sensitive habitats.

Marine Resources

None of the construction-related impacts to special status marine plant or animal species would occur with this alternative as new buildings and recreational facilities

would not be constructed. However, the RHA is currently covered with large areas of impermeable surfaces (i.e asphalt) contributing to uncontrolled runoff into the marine environment. Grading activities associated with the proposed Project, however, would be considered as less than significant with mitigation (i.e., Construction Erosion Control Plan and Storm Water Pollution Prevention Plan).

Long-term impacts to marine plant or animal species identified for the proposed Project (i.e., increased recreational use) would not occur with this alternative, although, with implementation of the proposed Runoff Management/Water Quality Management Plans, impacts to water quality resulting from Project development would be reduced to less than significant levels.

Overall, this alternative would result in no new environmental impacts on marine resources. However, it should be noted that existing levels of runoff would continue to flow over the bluff and without the possibility of repair, continued bluff erosion would continue to occur. This would result in continued bluff erosion and unmitigated runoff into the water offshore of Long Point. Continued erosion would result in increased sediment transport to the marine environment which has a significant adverse impact on marine life.

Noise

New stationary and mobile noise sources would not be developed on the Project site with implementation of this alternative, therefore, ambient noise levels would not increase. It should be noted, however, that noise levels for sensitive receptors along numerous roadways in the Project vicinity are already exceeded under the current conditions.

Public Health and Safety

The potential to create a significant hazard to the public or the environment through the disposal of hazardous materials would not occur with this alternative since hazardous materials which may occur on site would not be disturbed by construction activities. Further, the potential need to clean up the site which would occur with the proposed Project would not occur with this alternative. Potential impacts associated with hazardous materials for the proposed development would be considered less than significant with mitigation.

This alternative would not result in the development of a golf course, therefore, the potential for golf safety impacts would not occur, although, impacts associated with the proposed Project's golf course are considered less than significant with mitigation.

The potential to interfere with an adopted emergency evacuation plan for the area would not occur with this alternative since construction activities associated with the proposed Project would occur. Analysis has concluded for the proposed Project

that compliance with the City Development Code would result in a less than significant impact in this regard.

Public Services and Utilities

The No Development alternative would result in none of the impacts associated with increased demand for fire protection, police protection, and schools, identified for the proposed Project, since new development would not be constructed.

Additionally, this alternative would not necessitate the incremental expansion of the existing sewer, water, electrical, gas and telephone systems required as a result of the proposed Project. An increase in solid waste generation would not occur with this alternative as the proposed Project's facilities would not be developed.

Project implementation was anticipated to result in a less than significant impact with respect to public services and utilities.

Traffic and Circulation

A peak hour intersection analysis was conducted for this alternative (existing traffic scenario). Existing intersections within the study area are currently operating at Level of Service "D" or better during the peak hours, except for three intersections which operate at Level of Service "E" or "F" during the peak hours. This existing condition would continue with this alternative and may be further aggravated by additional growth in the area. None of the Project's proposed circulation improvements would occur with this alternative. Project implementation would have a significant impact at five study area intersections, although with mitigation, impacts would be reduced to a less than significant level.

Recreation

With this alternative, none of the beneficial impacts resulting from the proposed Project's recreational facilities would occur. However, physical impacts to the environment resulting from the proposed recreational facilities would not occur either. Additionally, implementation of the proposed Project would be considered a beneficial impact with respect to completion of the paths and trails network, which would not occur with this alternative. This alternative would not implement the recommendations of the Parks Master Plan, Conceptual Trails Plan and Conceptual Bikeways Plan which would be implemented under the proposed Project.

ABILITY TO MEET PROJECT OBJECTIVES

This alternative would not fulfill the proposed Project's objectives which include establishing a successful destination coastal resort, providing a high quality golf

experience, providing additional public trails and recreational facilities, as well as the additional objectives identified in Section 3.4, *Project Objectives.*

7.2 NO PROJECT ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "No Project" Alternative involves development of the RHA based upon the existing entitlements. In 1989, approval by the City and the Coastal Commission was granted for development of the RHA. The entitlements issued were for development of the following land uses:[2]

- 390 new rooms plus 10 refurnished rooms
- 50 casitas
- 9-hole golf course
- 30,000 square-foot conference center
- Galley West Restaurant rehabilitation
- 25,000 square foot spa/fitness center
- 8 tennis courts
- 30,000 square foot country market/café
- 102.2 total acres

The Conditional Use Permit and Coastal Development Permit approvals have received extensions from the City and Coastal Commission through September 11, 2001 and remain viable entitlements, independent of the current proposed Project.

The approximately 1.4-acre parcel owned by Cigna, which extends along and defines the eastern property line of the RHA (west of Nantasket Drive), was not a part of the resort hotel and conference center development described above.

This alternative would be generally similar to the proposed Project, however, would exclude the use of the UPVA, resulting in a more intensified use of the RHA. The majority of the proposed Project components would be developed, as well as additional land uses not currently proposed by the Project. Overall, this alternative would involve more intensive development, contained in a smaller geographical area, than the proposed Project.

It should be noted that an Environmental Impact Report was prepared and certified by the City Council on July 2, 1991. The Long Point Master Plan Development EIR (Myra Frank & Associates, June, 1989) assessed the potential environmental impacts associated with a more intensive development than the existing entitlements and the currently proposed Project. The EIR concluded that implementation of that Project would result in a less than significant impact after

[2] Correspondence: Dave Snow, November 22, 2000.

mitigation for all issue areas analyzed excluding the following which remained significant after mitigation:

- Emissions associated with stationary and mobile sources; and
- Established public assess to shoreline at Long Point may disrupt the resident sea lion population and tidepools.

The following discussion evaluates the potential environmental impacts associated with the No Project Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Aesthetics/Light and Glare

Views across the RHA from off-site vantage points would be generally similar, although more intensive, when compared to the proposed Project since views of the existing surface parking and remaining structures would be replaced with views of new buildings, a golf course and landscaping. The aesthetic enhancement to the RHA resulting from Project implementation would also be achieved with this alternative since the vast parking lots and dilapidated structures would be removed.

None of the visual impacts associated with development of the proposed Project on the UPVA would occur with this alternative.

Overall, impacts associated with aesthetics/light and glare resulting from this alternative would be less than with the proposed Project since development of the UPVA would not occur.

Air Quality

Emissions associated with demolition, grading and construction activities on the RHA would be greater with this alternative due to more intensive development. As with the proposed Project, the NOX construction emissions standard would be violated. Similar to the proposed Project, mitigation measures would reduce short-term construction emissions, however, emissions of NO_X and PM_{10} would remain significant. Overall, emissions associated with demolition, grading and construction activities for this alternative would be less than with the proposed Project since development of the UPVA would not occur.

Emissions from stationary and mobile sources associated with this alternative would be slightly greater than the proposed Project overall due to a more intense development and a greater volume of average daily traffic (refer to the *Traffic and Circulation* discussion below). However, as with the proposed Project, emissions at buildout would exceed thresholds for ROG, NO_X and CO for this alternative.

Biological Resources

None of the biological impacts identified for the UPVA would occur with this alternative as the UPVA would not be altered from its current condition. It should be noted, however, that the net increase in coastal scrub habitat resulting from the enhancement and creation of new coastal scrub habitats proposed by the Project would not occur with this alternative. When compared to the proposed Project, this alternative would result in greater biological impacts on the RHA, including more construction-related impacts and more long-term impacts to vegetation and plants/wildlife, due to a more intensive development. Additionally, this alternative would result in greater impacts to the bluff area as the existing entitlements provide for the golf course to be located in areas adjacent to the bluff and in the sub-bluff area.

When compared to the proposed Project, this alternative would result in fewer overall impacts to biological resources since the UPVA would not be developed.

Cultural Resources

Development of the UPVA is excluded from this alternative, therefore, none of the impacts to cultural resources anticipated on the UPVA would occur. Marineland is modern in origin and the remaining onsite buildings demonstrate no particular historic characteristics or other special qualities. Therefore, the former site requires no further consideration as a potential historical resource. As such, impacts in regard to the cultural resources within the RHA would be similar to the proposed Project and are anticipated to be less than significant.

Overall, impacts to cultural resources associated with this alternative would be less than with the proposed Project since the UPVA would not be disturbed.

Geology, Soils and Seismicity

Implementation of this alternative would expose a slightly greater number of people and structures to potential adverse effects associated with seismic activity and geology and soils within the RHA due to a more intensive development. Additionally, this alternative would result in greater geological impacts to the bluff area as the existing entitlements provide for the golf course to be located in areas adjacent to the bluff and in the sub-bluff area. As with the proposed Project, impacts would be reduced to less than significant levels with implementation of mitigation. None of the geological impacts associated with the UPVA would occur with this alternative.

Hydrology and Drainage

None of the short-term impacts to water quality associated with grading, excavation and construction activities on the UPVA would occur with this alternative since the area would not be developed. Additionally, the existing quality and quantity of storm water and urban runoff would not be impacted by this alternative as the UPVA would not be altered from it's current condition.

When compared to the proposed Project, the short-term impacts to water quality associated with grading, excavation and construction activities anticipated on the RHA with this alternative would be slightly greater due to a more intensive development. As with the proposed Project, implementation of mitigation would reduce construction-related hydrology and drainage impacts to less than significant levels. Both this alternative and the proposed Project involve the development of a golf course which would be expected to increase pollutant loadings, including hydrocarbons, fertilizers, and pesticides. This impact would be considered significant unless mitigated. Therefore, as with the proposed Project, development of this alternative has the potential to result in significant impacts associated with water quality and quantity. However, these would be reduced to less than significant levels with mitigation including implementation of a comprehensive Water Quality Management Plan similar to the one proposed as part of the Project.

Land Use and Relevant Planning

This alternative would exclude development on the UPVA, therefore, the General Plan Amendment changing the land use designation from Recreational Passive to Recreational Active, and the Conditional Use Permit for construction of the proposed golf course, practice facility and related ancillary uses on the UPVA would not be required.

Unlike the proposed Project, implementation of this alternative would not require approval of a Coastal Permit or approval of a CUP on the RHA, as these entitlements already exist.

The existing entitlements (this alternative) were approved and deemed not to conflict with the policies of the City of Rancho Palos Verdes General Plan, Coastal Specific Plan, and Development Code. Similarly, the proposed Project is not anticipated to conflict with the policies of the City of Rancho Palos Verdes General Plan, Coastal Specific Plan, and Development Code.

Marine Resources

The construction-related impacts to special status marine plant or animal species anticipated for the proposed Project would also occur with this alternative since new buildings and recreational facilities would be constructed on the RHA. As with the proposed Project, grading activities associated with construction of this alternative

would be considered as less than significant if similar project design features, standard conditions and mitigation measures were implemented (i.e., Construction Erosion Control Plan and Storm Water Pollution Prevention Plan).

Implementation of this alternative would result in greater Long-term impacts to marine plant or animal species identified for the proposed Project (i.e., increased recreational use) due to more intense development on the RHA. Similar to the proposed Project, the long-term operation of this alternative, including the golf course, would potentially adversely affect local marine biological resources, although, with implementation of the proposed Runoff Management/Water Quality Management Plans, significant impacts to water quality would not occur.

As with the proposed Project, development of this alternative would increase the recreational use value of the area shoreline. Implementation of the recommended mitigation measures, including development of a visitor use plan, would reduce potential impacts to a less than significant level.

Noise

None of the construction-related noise impacts associated with development of the UPVA would occur with this alternative. Additionally, new noise sources would not be developed on the UPVA with implementation of this alternative.

When compared to the proposed Project, noise impacts from stationary and mobile sources associated with development of the RHA would be slightly greater due to a more intense development. As with the proposed Project, sensitive receptors along numerous roadways in the Project vicinity currently experiencing excessive noise levels would experience a worsening of this condition due to traffic-generated noise increases. However, as with the proposed Project, this alternative is not anticipated to result in a substantial permanent increase in ambient noise levels.

Public Health and Safety

When compared to the proposed Project, the potential to create a significant hazard to the public or the environment through the disposal of hazardous materials would be reduced with this alternative since hazardous materials which potentially occur on the UPVA would not be disturbed by construction activities. Analysis, however, has concluded that with mitigation, a less than significant impact would occur with Project implementation. Potential impacts for this alternative associated with hazardous materials on the RHA would be similar to the proposed Project due to the disturbance of a similar number of existing structures.

The potential golf safety impacts associated with the golf practice facility would not occur with this alternative since the UPVA would not be developed. However, impacts associated with the proposed Project's golf course on the UPVA would be

relocated to the RHA. As with the proposed Project, golf safety impacts on the RHA would be considered less than significant with mitigation.

When compared to the proposed Project, the potential to interfere with an adopted emergency evacuation plan for the area would be similar with this alternative since construction activities associated with the proposed Project would occur along Palos Verdes Drive South. Compliance with the City Development Code would result in a less than significant impact in this regard for this alternative, as well as the proposed Project.

Public Services and Utilities

When compared to the proposed Project, this alternative would result in a slightly greater demand for fire protection, police protection, and schools as this alternative would involve a more intensive development.

As with the proposed Project, this alternative would require an incremental expansion of the existing sewerage, water, electrical, gas and telephone systems. Due to a more intensive development, this alternative would result in a slightly greater demand for water, electricity, and gas, as well as increase in wastewater and solid waste generation.

Traffic and Circulation

According to the Traffic Impact Analysis, three intersections presently operate at Level of Service "E" or "F" during the peak hours. Implementation of the proposed Project would have a significant impact at five study area intersections, although with mitigation, impacts would be reduced to a less than significant level. This alternative would result in a greater increase in traffic generation than would the proposed Project since it would involve a more intensive development. The existing entitlements project would generate a total of approximately 9,619 average daily trips (ADT).[3] In contrast, the currently proposed development would generate 6,263 ADT (refer to Section 5.12, *Traffic and Circulation*). Therefore, implementation of this alternative could potentially impact more than five study area intersections.

Recreation

The beneficial impacts resulting from development of new recreational facilities on the UPVA would not occur with this alternative. However, physical impacts to the environment on the UPVA resulting from the proposed recreational facilities would not occur either.

[3] Estimate derived based upon data provided in the Draft EIR for the Long Point Master Plan Development (Myra L. Frank & Associates, June 1989, page 2-54) and existing entitlements data provided by the City..

Although trails on the RHA are a part of the existing entitlements plan, those trails are not as well designed as those proposed as a part of the current Long Point Resort Project. The public access proposed by the Project on the RHA would not be provided with this alternative.

With this alternative, the paths and trails network in the Project area would not be completed since none of the trails in the UPVA would be developed and trails o the RHA would only be partially developed. The recommendations made in the Parks Master Plan involving the UPVA and the RHA fulfilled by the proposed Project would not be implemented with this alternative.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill the majority of the objectives identified in Section 3.4, *Project Objectives* on the RHA. However, this alternative would only partially fulfill the following objectives:

- To provide for a variety of public open spaces;
- To provide for implementation of the City's Master Plan of Trails; and
- To provide additional public trails and recreational facilities in the UPVA.

7.3 WITH COAST GUARD SITE ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "With Coast Guard Site" Alternative would add to the Project the approximately 3.9-acre site on the UPVA that was retained by the U.S. Coast Guard when the federal government transferred ownership of the bulk of the UPVA to the City in 1975 (refer to Exhibit 7-1, *With Coast Guard Site Alternative)*. Existing uses at this site include asphalt walkways, remnants of a World War II military battery and undeveloped lands. Implementation of this alternative would increase the size of the Project's UPVA from 64.9 to 68.8 acres (an increase of approximately six percent). The additional acreage would be used for the following:

- Approximately 1.8 acres of native habitat that is preserved/restored/created;
- Approximately 0.9-acre expansion to the proposed City Hall Park Expansion; and
- Approximately 1.2 acres golf course expansion.

The following discussion evaluates the potential environmental impacts associated with the With Coast Guard Site Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

With the exception of Biological, Cultural, and Recreational impacts, this alternative would result in similar environmental impacts as the proposed Project's in all environmental impact areas analyzed since it would involve improvements and a development boundary consistent with that of the proposed Project. When compared to the proposed Project, this alternative would involve similar impacts with respect to the following issues:

- Aesthetics/Light and Glare;
- Air Quality;
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Marine Resources;
- Noise;
- Public Health and Safety;
- Public Services and Utilities;
- Traffic and Circulation; and
- Recreation.

Exhibit 7-1, With Coast Guard Site Alternative

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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LONG POINT RESORT EIR

With Coast Guard Site Alternative

Exhibit 7-1

Biological Resources

The Coast Guard site currently contains approximately one acre of native habitat and 2.9 acres of non-native habitat and other lands. Due to its strategic location, inclusion of the Coast Guard Site within the Project area would allow for modifications to the UPVA's land use plan resulting in fewer biological impacts than the proposed Project. More specifically, inclusion of the Coast Guard Site would allow an alternative layout of Holes 3 and 4 which would result in the avoidance of portions of the native habitat which presently exists at this location, and a net increase of native habitat within the 3.9 acres - by allowing for restoration and conversion of certain non-habitat areas to Coastal Sage Scrub. Overall, when compared to the proposed Project, this alternative would result in a net increase of six acres of new coastal sage scrub habitat.

Therefore, biological impacts to the UPVA would be less than with the proposed Project with implementation of this alternative. Biological impacts to the RHA would be similar to those of the proposed Project with implementation of this alternative.

Cultural Resources

When compared to the proposed Project, implementation of this alternative would result in greater impacts to cultural resources, as impacts to archaeological Site CA-LAN-103 (Rock Shelter and Shell Midden) would not be avoided with this alternative, which would be avoided with the proposed Project. When compared to the proposed Project, the remaining cultural impacts on the UPVA would be similar with implementation of this alternative (project implementation would result in no cultural impacts on the RHA).

Land Use and Relevant Planning

When compared to the proposed Project, this alternative would result in generally similar environmental impacts as the proposed Project. However, as this alternative involves the development of Federal lands, there would be additional land use issues that would be generated. Specifically, the development of Federal lands would entail additional Federal resource regulations, compliance with the National Environmental Protection Act (NEPA), and possible negotiations for acquisition of the 3.9-acre property. Therefore, implementation of this alternative would result in greater impacts to land use.

Recreation

Impacts associated with recreational facilities resulting from implementation of this alternative would be generally similar to those of the proposed Project. However, implementation of this alternative would result in greater beneficial impacts since the majority of the Coast Guard Site would be devoted to the seaward extension of the

proposed City Hall Park Expansion (Planning Area 2-F). This would allow for the physical extension of public trails, scenic overlooks, and public seating and picnic tables toward the ocean. Additionally, when compared to the proposed Project, the golf course design would be improved with this alternative by lengthening Hole 3 and redesigning Hole 4.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill all of the objectives identified in Section 3.4, *Project Objectives*.

7.4 RELOCATE PRACTICE FACILITY - OPTION "A" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "Relocate Practice Facility - Option "A"" Alternative involves relocation of the Project's proposed golf practice facility to the undeveloped land located adjacent to the City's Point Vicente Interpretive Center (PVIC), on the Lower Point Vicente Area (LPVA) (refer to Exhibit 7-2, *Relocate Practice Facility - Option "A" Alternative*). A portion of the approximately nine acres vacated by relocation of the golf practice facility would be used for the creation of new habitat, creating a larger conservation zone in the northern portion of the UPVA.

Historical records indicate that a portion of the PVIC site was a former rifle and small arms range which was used from the 1940's to the 1970's. This site has been graded in association with the planned expansion of the PVIC. Construction of a 7,437 square-foot expansion of the Center was started by the City, however, has since been delayed (refer to *Public Health and Safety* discussion below).

The following discussion evaluates the potential environmental impacts associated with the Relocate Practice Facility - Option A Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

With the exception of Biological Resources, and Public Health and Safety impacts, this alternative would result in similar environmental impacts as the proposed Project's in all environmental impact areas analyzed. This would occur since this alternative would involve improvements and a development boundary generally consistent with that of the proposed Project. Further, it should be noted that the proposed golf practice facility relocation site possesses physical characteristics very

Exhibit 7-2, Relocate Practice Facility - Option "A" Alternative

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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LONG POINT RESORT EIR

Relocate Practice Center Option "A" Alternative

Exhibit 7-2

similar to those of the currently proposed location. As a result, many of the proposed Project's impacts anticipated to occur in the northern portion of the UPVA would simply be relocated to the LPVA. When compared to the proposed Project, this alternative would involve similar impacts with respect to the following issues:

- Air Quality;
- Cultural Resources
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Marine Resources;
- Noise;
- Public Services and Utilities;
- Traffic and Circulation; and
- Recreation.

Aesthetics

Implementation of this alternative would result in the potential for greater impacts associated with aesthetics as the relocation site would be within a coastal area. Relocation of the Project's proposed golf practice facility to the undeveloped land located adjacent to the City's Point Vicente Interpretive Center (PVIC), would therefore have the potential to intrude on views of the Pacific Ocean and Catalina Island experienced from Palos Verdes Drive South.

Biological Resources

The approximately six acres vacated by relocation of the proposed golf practice facility to the LPVA presently consist primarily of disturbed and non-native grasslands. Relocation of the golf practice facility would facilitate the creation of new habitat, creating a larger conservation zone in the northern portion of the UPVA. This would represent an enhancement to the proposed Project's Long Point Habitat Conservation Program increasing the total proposed habitat of 40 acres to approximately 46 acres. Additional beneficial effects of the relocation of the practice facility include enhanced corridor linkages with the habitat that exists on the northern site of Hawthorne Boulevard. Further, since the relocation site proposed with this alternative presently contains primarily disturbed grasslands, significant biological impacts at the LPVA are not anticipated to occur with this alternative.

Land Use and Relevant Planning

The relocation site proposed with this alternative is zoned Open Space Recreational (OSR). Therefore, implementation of this Alternative would be a permitted use within this District. As previously noted, the proposed golf practice facility relocation site on the LPVA possesses physical characteristics very similar to those of the currently proposed location: adjacent to residential uses and a roadway. As a

result, many of the proposed Project's impacts anticipated to occur in the northern portion of the UPVA would simply be relocated to the LPVA.

The relocation site proposed with this alternative is located in Subregion 2 of the Rancho Palos Verdes Coastal Specific Plan (CSP). When compared to the proposed Project, additional coastal permitting requirements may be associated with this Alternative including a Coastal Permit. Additionally, an amendment to the CSP may be required since this site is designated as Agriculture on the CSP Land Use Map (Adopted December 1978) and development of the practice facility) would not be consistent with this land use designation.

Public Health and Safety

As part of the Phase I Environmental Site Assessment for the Long Point Project, RBF Consulting reviewed information regarding the discovery of lead contaminated soil from the Point Vicente Interpretive Center (PVIC) site in the LPVA. Historical records indicate that a portion of the site was a former rifle and small arms range which was used from the 1940's to the 1970's. Soil on the site contains lead from the rifle range activities. From 1983 to 1984, as part of the development of the park property, the soil mound used for the range was graded. Grading appears to have stayed within the boundaries of the Point Vicente Interpretive Center site. In July 1999, as part of a planned expansion, soil from this site was excavated and transported from the site. Subsequent sampling of this transported soil indicated lead concentrations had the potential to exceed regulated levels. In consideration of the potential for contaminated soil to presently exist on the site proposed for relocation of the golf practice facility, impacts associated with this alternative would be greater than the proposed Project with respect to hazardous materials.

The potential golf safety impacts associated with the golf practice facility on the UPVA would not occur with this alternative since the facility would be developed on the LPVA. The proposed relocation site possesses characteristics similar to that of the proposed Project site: adjacent residential area and roadway. Therefore, impacts associated with the proposed Project's golf practice facility would simply be relocated to the LPVA. The existing PVIC would not be impacted by this alternative due to the distance which would exist between it and the proposed golf practice facility. As with the proposed Project, golf safety impacts on the LPVA would be considered less than significant with mitigation, including mitigation for safety issues regarding visitors to the Interpretive Center itself.

The potential to interfere with an adopted emergency evacuation plan for the area would slightly increase with this alternative since construction activities would occur along two portions of Palos Verdes Drive South (i.e., adjacent to the LPVA and adjacent to the RHA). However, as with the proposed Project, this alternative's compliance with the City Development Code would result in a less than significant impact in this regard.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill all of the objectives identified in Section 3.4, *Project Objectives*.

7.5 RELOCATE PRACTICE FACILITY - OPTION "B" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "Relocate Practice Facility - Option "B" Alternative involves relocation of the Project's proposed golf practice facility to the eastern portion of the RHA, between the Entry Road and Hole #9. The golf practice facility would displace Golf Holes #7 and #8 in the RHA. The displaced golf holes would replace the golf practice facility in the UPVA (refer to Exhibit 7-3, *Relocate Practice Facility - Option "B" Alternative*).

The following discussion evaluates the potential environmental impacts associated with the Relocate Practice Facility - Option B Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

With the exception of Biological Resources, and Public Health and Safety impacts, this alternative would result in similar environmental impacts as the proposed Project's in all environmental impact areas analyzed. This would occur since this alternative would involve improvements and a development boundary generally consistent with that of the proposed Project. When compared to the proposed Project, this alternative would involve similar impacts with respect to the following issues:

- Aesthetics/Light and Glare;
- Air Quality;
- Cultural Resources
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Land Use and Relevant Planning;
- Marine Resources;
- Noise;
- Public Services and Utilities;

Exhibit 7-3, Relocate Practice Facility - Option B Alternative

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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LONG POINT RESORT EIR

Relocate Practice Center Option "B" Alternative

Exhibit 7.3

- Traffic and Circulation; and
- Recreation.

Biological Resources

The approximately six acres vacated by relocation of the proposed golf practice facility to the RHA presently consist primarily of disturbed and non-native grasslands. The proposed golf practice facility relocation site presently consists of disturbed grasslands. Therefore, similar to the proposed Project, locating the practice facility on this portion of the RHA would result in less than significant biological impacts. However, although this alternative proposes a slightly larger conservation area in the northern portion of the UPVA (around Golf Holes # 3 and #4), it would be more fragmented than with the proposed Project. Further, as illustrated in Exhibit 7.3, the third hole would intrude on the mixed sage scrub habitat which exists near the northeastern corner of the UPVA. Accordingly, implementation of this alternative would result in greater biological impacts on the UPVA than the proposed Project. Impacts on the RHA would be similar to the proposed Project with this alternative.

Public Health and Safety

The potential golf safety impacts associated with the golf practice facility on the UPVA would not occur with this alternative since the facility would be developed on the RHA. The proposed relocation site possesses characteristics similar to that of the proposed Project: adjacent residential area and roadway. Therefore, impacts associated with the proposed Project's golf practice facility would simply be relocated to the RHA. Relocation of the proposed practice facility from the UPVA to the eastern portion of the RHA would result in potential golf safety impacts similar to those identified for the proposed Project. As a result, a Peer Review and Safety Analysis was conducted by Kipp Schulties Golf Design, Inc. (January 23, 2001) to assess the potential impacts of this alternative.

The relocated practice facility is proposed on the eastern portion of the RHA between Holes 1 and 9. It would be oriented in a predominantly north-south direction with the teeing area in the southern portion. As with the proposed Project, Hole No. 1 would be a par four playing east-west and Hole 9 would be a par four playing in the opposite direction.

A relocated drainage swale/arroyo would divide the practice range from the first hole and entry drive. This would be naturally landscaped with trees and shrubs for both function and aesthetic appeal further defining the practice range and enhancing separation. Tees on Hole 9 would be oriented adjacent to the eastern boundary to encourage golf shots to the interior. The proposed landing area for this hole would begin at an area some 150 yards in depth from the center of the practice tee and extending to within 100 yards. Lateral separation would be approximately 40 to 50 yards between the edge of the fairway and practice range. Berms would be

constructed for separation as would sand bunkers on the right side of Hole 9 for collection of errant shots and strategic playability.

The practice range has a proposed tee width of approximately 250 to 280 feet and a depth of approximately 100 to 120 feet. The tee would be constructed in a curvilinear orientation to direct shots to the interior of the practice landing area to well defined target greens. The tee would be depressed from the existing grade with containment berms along the perimeter to contain errant golf shots. Berms would be elevated to the maximum height allowable relative to adjacent view corridor requirements.

The practice landing area would be a minimum of 100 yards in width with an overall depth of 280 to 290 yards. While prevailing winds originate out of the west, there would be more than adequate separation from the eastern boundary of the Project, keeping golf balls from exiting the property. A golf ball would have to travel approximately 250 to 300 yards and be off line by a minimum of 80 yards from the furthest right hand portion of the range in order for it to exit the property.

Concern exists with this alternative's configuration of the practice facility and the ninth hole. As proposed, the ninth hole would have a corridor width of 300 feet off the eastern property boundary. As previously noted, a golf ball would have to travel 80 yards (240 feet) to get off the property from the right hand portion of the range. Thus, the edge of the range would be 240 feet from the eastern property boundary. The western edge of the ninth hole would be 300 feet away from the eastern boundary. As a result, the driving range and the ninth hole would overlap. As proposed with this alternative, golf balls from the range would be all over the ninth fairway, particularly given the fact that most golfers slice the ball (hit it to the right). To compound matters, the prevailing wind is out of the west, which would carry errant shots even more toward the ninth fairway. Much concern exists with this relationship.

The newly proposed practice range does not cause concern with respect to balls flying off of the property. However, there is great concern for overlap with other holes/amenities on the RHA. Further analysis would be required for a more detailed design (i.e., with grading plan).

Also relocated as part of this alternative would be holes three and four. These would be located where the practice area was previously located in the UPVA. In addition, the 8th hole is proposed as par 5.

Concern exists regarding the proposed 8th hole becoming a par five. Based on routing templates and property constraints, it appears that in order to make this hole a par five, the entry road to the resort would have to move slightly to the west. Even at that, there is little separation between the green and the entry road. In addition, any movement of the entry road to the west only compounds matters with the proposed driving range (concern of golf balls landing on the entry road).

The proposed par four 3rd hole (formerly the practice facility) appears adequate. However, the shots from the tee would be more apparently directed toward the residential units to the left of this hole than the practice range shots with the proposed Project.

The par three 4th hole is proposed parallel to the 3rd hole. Based on routing templates and using the existing topographic mapping, it would be unsafe to locate both of those holes in the space as they are proposed due to the steepness of the slope paralleling these holes. Although the tees would be adequate, the green is of concern. It is doubtful that the green (at the length that it is proposed) can actually be constructed and not interfere with the 3rd hole. Most certainly there would be errant shots in the 3rd fairway because the tees are likely to be 50 feet higher than the green with the slope falling away toward the third hole. Additional details (i.e., a grading plan) would be required to further evaluate the proposed 3rd and 4th holes.

As with the proposed Project, impacts associated with golf safety would be considered less than significant with mitigation. However, in the event this alternative were selected, further analysis (with a grading plan) would be required to assess the adequacy of the physical separation between the golf elements proposed under this alternative.

Additionally, for this alternative, the potential to interfere with an adopted emergency evacuation plan for the area would be similar to the proposed Project since construction activities would occur along the same portions of Palos Verdes Drive South.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill all of the objectives identified in Section 3.4, *Project Objectives.*

7.6 NO RESORT VILLAS - OPTION “A” ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The “No Resort Villas - Option A" Alternative would exclude the Resort Villas proposed for development in the northeastern portion of the RHA and adjacent to Rancho Palos Verdes Drive South (refer to Exhibit 7-4, *No Resort Villas - Option A Alternative*). Hole 5 of the golf course would be relocated from the UPVA to the area vacated by the Resort Villas on the RHA and renumbered. The vacated Hole 5 location would be used for the creation of new habitat, creating a larger conservation zone in the southeastern portion of the UPVA.

The following discussion evaluates the potential environmental impacts associated with the No Resort Villas - Option A Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

With the exception of Aesthetic/Light and Glare, and Biological Resource impacts, this alternative would result in similar environmental impacts, as the proposed Project's in all environmental impact areas analyzed since it would involve improvements and a development boundary consistent with that of the proposed Project. When compared to the proposed Project, this alternative would involve similar impacts with respect to the following issues:

- Air Quality;
- Cultural Resources
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Land Use and Relevant Planning;
- Marine Resources;
- Noise;
- Public Health and Safety;
- Public Services and Utilities;
- Traffic and Circulation; and
- Recreation.

Aesthetics/Light and Glare

Generally, aesthetic impacts resulting from implementation of this alternative would be similar to those of the proposed Project. However, none of the visual impacts associated with development of the proposed Resort Villas would occur with implementation of this alternative. With the proposed Project, views along Palos Verdes Drive South (along the RHA) would include the proposed Villas. In contrast, with this alternative, structures would not be located along Palos Verdes Drive South. More specifically, the unavoidable adverse impact associated with the proposed Project due to obstruction of views of Catalina Island from Palos Verdes Drive South caused by the proposed Villas (refer to Exhibit 5.1-8, *Photo Simulation #4*) would not occur with this alternative.

Exhibit 7-4, No Resort Villas - Option A Alternative

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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LONG POINT RESORT EIR

No Resort Villas Option "A" Alternative

Exhibit 7.4

Biological Resources

The approximately six acres vacated by relocation of the proposed Par 5 to the RHA presently consist of agricultural lands. Relocation of Hole 5 would facilitate the creation of new habitat, creating a larger conservation zone in the southeastern corner of the UPVA. This would represent an enhancement to the proposed Project's Long Point Habitat Conservation Program increasing the total proposed habitat of 40 acres to approximately 46 acres. Further, since the relocation site proposed with this alternative presently contains developed lands and disturbed habitats, significant biological impacts are not anticipated to occur with this alternative.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill all of the objectives identified in Section 3.4, *Project Objectives* with one exception: the absence of the villas removes a type of resort unit. When compared to the proposed Project, this alternative reduces the variety of visitor-serving units that would be available.

7.7 NO RESORT VILLAS - OPTION "B" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "No Resort Villas - Option B" Alternative would exclude the Resort Villas proposed for development in the northeastern portion of the RHA (refer to Exhibit 7-5, *No Resort Villas - Option B Alternative)*. The golf practice facility would be "switched" with Hole 8, relocated from the UPVA to the eastern portion of the RHA and it would be replaced by relocating Hole 8 to the UPVA vacated by the practice facility. Hole 7 would be relocated to the area vacated by the Resort Villas. The portion of the UPVA vacated by the practice facility not used for a golf hole would be used for the creation of new habitat, creating a larger conservation zone in the northwestern portion of the UPVA.

The following discussion evaluates the potential environmental impacts associated with the No Resort Villas - Option B Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

With the exception of Aesthetic/Light and Glare, Biological Resource, and Public Health and Safety impacts, this alternative would result in similar environmental impacts, as the proposed Project's in all environmental impact areas analyzed since

Exhibit 7-5, No Resort Villas - Option B Alternative

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

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No Resort Villas Option "B" Alternative

Exhibit 7.5

it would involve improvements and a development boundary consistent with that of the proposed Project. When compared to the proposed Project, this alternative would involve similar impacts with respect to the following issues:

- Air Quality;
- Cultural Resources
- Geology, Soils and Seismicity;
- Hydrology and Drainage;
- Land Use and Relevant Planning;
- Marine Resources;
- Noise;
- Public Services and Utilities;
- Traffic and Circulation; and
- Recreation.

Biological Resources

The UPVA portion of the golf course would be modified: a golf hole and the practice facility would be relocated to the RHA. The area vacated by the practice facility would be replaced by another golf hole with a modified golf course design. The area vacated by relocation of the golf hole to the RHA presently consists of agricultural lands.

Relocation of this golf hole would facilitate the creation of new habitat, creating a larger conservation zone in the southeastern corner of the UPVA. This would represent an enhancement to the proposed Project's Long Point Habitat Conservation Program increasing the total proposed habitat of 40 acres to approximately 46 acres. Further, since the relocation sites for the golf hole and practice facility proposed with this alternative presently contain developed lands and disturbed habitats, significant biological impacts are not anticipated to occur with this alternative.

Aesthetics/Light and Glare

Generally, aesthetic impacts resulting from implementation of this alternative would be similar to those of the proposed Project. However, none of the visual impacts associated with development of the proposed Resort Villas would occur with implementation of this alternative. This alternative would not result in views of buildings (i.e., Villas) along Palos Verdes Drive South (along the RHA) which would be expected with the proposed Project. As a result, the unavoidable adverse impact associated with the proposed Project due to obstruction of views of Catalina Island from Palos Verdes Drive South caused by the proposed Villas (refer to Exhibit 5.1-8, *Photo Simulation #4*) would not occur with this alternative. As with the proposed Project, landscaping with trees and shrubs would be utilized to enhance the separation between the practice facility and existing residences situated to the west.

Public Health and Safety

The potential golf safety impacts associated with the golf practice facility on the UPVA would not occur with this alternative since the facility would be developed on the RHA. The proposed relocation site possesses characteristics similar to that of the proposed Project: adjacent residential area and roadway. Therefore, impacts associated with the proposed Project's golf practice facility would simply be relocated to the RHA. Relocation of the proposed practice facility from the UPVA to the eastern portion of the RHA would result in potential golf safety impacts similar to those identified for the proposed Project. As a result, a Peer Review and Safety Analysis was conducted by Kipp Schulties Golf Design, Inc. (January 23, 2001) to assess the potential impacts of this alternative.

Under this alternative, the practice facility would be relocated to the same location proposed under the Relocated Practice Center - Option B Alternative. Therefore, the *Public Health and Safety* discussion pertaining to the golf practice facility under the *Relocated Practice Center - Option B Alternative* would also be applicable to this alternative.

The first hole would be a par four running east-west, similarly routed as the proposed Project. The proposed par three 8th hole would be adequate (although grading plans would be required to further evaluate this). The proposed par four 3rd hole (formerly the practice facility) appears adequate. However, the shots from the tee would be more apparently directed toward the residential units to the left of this hole than the practice range shots with the proposed Project.

No threat exists of golf balls flying off the property with the remainder of the routing, excluding some of the routing concern with the 3rd hole. The proposed practice range and 8th hole do not cause concern over balls flying off the property. However, there is great concern for overlap with other holes/amenities on the RHA. Further analysis would be required for a more detailed design. The relationship between the 4th and 5th holes (previously the 3rd and 4th holes) would be similar to that of the proposed Project.

Implementation of this alternative would require moving the landing area on the third hole to the east and more directly into the containing slope, and cutting a deep low along the left side of the fairway. The hole would become a dogleg left rather than one to the right. Otherwise, the landing area would be falling away from the turn to the right (by looking at the existing topography). The green would become much more dramatic with the low in front of it, and it would keep the landing area farther away from the property boundary.

As with the proposed Project, impacts associated with golf safety would be considered less than significant with mitigation. However, in the event this alternative were selected, further analysis (with a grading plan) would be required

to assess the adequacy of the physical separation between the golf elements (particularly the proposed 3rd and 4th holes) proposed under this alternative.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill all of the objectives identified in Section 3.4, *Project Objectives* with one exception: the absence of the villas removes a type of resort unit. When compared to the proposed Project, this alternative reduces the variety of visitor-serving units that would be available.

7.8 PROGRAM OF UTILIZATION ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "Program of Utilization" Alternative would involve development of only the UPVA with recreational uses. This Area was transferred to the City of Rancho Palos Verdes in October 1979 by the United States Department of the Interior, National Park Service "for public park and public recreation area purposes". The Deed established a Program of Utilization (POU) for the transferred property. The POU provides for the development of both active and passive recreational uses on the property. The recreational uses identified in the POU are detailed in Table 5.7-1, *Program of Utilization*, and illustrated in Exhibit 5.7-4, *Program of Utilization Conceptual Plan*. This alternative results in a more intensive development of the UPVA than does the proposed Project.

This alternative focuses on an alternate use of the UPVA only, as the RHA is not subject to the POU. None of the impacts associated with development of the RHA would occur with this alternative.

The following discussion evaluates the potential environmental impacts associated with the Program of Utilization Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO PROPOSED PROJECT

Aesthetics/Light and Glare

Views across the UPVA from off-site vantage points would be similar when compared to the proposed Project since views of the existing undeveloped lands and institutional buildings would be replaced with views of new active and passive recreational facilities, a par hiking/jogging course, landscaping and parking areas.

The aesthetic enhancement to the RHA resulting from Project implementation would not be achieved with this alternative since the vast parking lots and dilapidated

structures would not be removed. None of the visual impacts associated with development of the proposed Project on the RHA would occur with this alternative.

Air Quality

Emissions associated with demolition, grading and construction activities on the UPVA may be minimized with this alternative due to a lesser degree of required landform modification than with the proposed Project. Similar to the proposed Project, mitigation measures would reduce short-term construction emissions, however, emissions of NO_X and PM_{10} would remain significant.

Emissions from stationary and mobile sources on the UPVA associated with this alternative would be less than with the proposed Project. Although a more intensive recreational use would be developed on the UPVA with this alternative, fewer average daily trips would be generated overall. Unlike the proposed Project, emissions at buildout for this alternative would not exceed thresholds for ROG, NO_X and CO.

None of the air quality impacts associated with development of the proposed resort hotel and golf course in the RHA would occur with this alternative.

Biological Resources

None of the biological impacts identified for the RHA would occur with this alternative as the RHA would not be altered from its current condition.

When compared to the proposed Project, this alternative would result in greater biological impacts in the UPVA, including more construction-related impacts, a greater degree of fragmentation, and more long-term impacts to vegetation and plants/wildlife, due to a more intensive development and a larger development footprint. Although, it is assumed that impacts to native vegetation and sensitive species would be mitigated under this alternative. The beneficial impacts which would result from the Long Point Habitat Conservation Program would not occur with this alternative.

Cultural Resources

When compared to the proposed Project, implementation of this alternative would result in greater impacts to cultural resources, as impacts to archaeological Site CA-LAN-103 (Rock Shelter and Shell Midden) would not be avoided with this alternative (significant impact would avoided with the proposed Project). When compared to

the proposed Project, the remaining cultural impacts on the UPVA would be similar with implementation of this alternative.[4]

Development of the RHA is excluded from this alternative, therefore, none of the impacts to cultural resources anticipated on the RHA would occur with this alternative.

Geology, Soils and Seismicity

Implementation of this alternative would expose a slightly greater number of people and structures on the UPVA to potential adverse effects associated with seismic activity and geology and soils due to a more intensive development. As with the proposed Project, impacts would be reduced to less than significant levels with implementation of mitigation.

Development of the RHA is excluded from this alternative, therefore, none of the impacts associated with geology, soils, and seismicity anticipated on the RHA would occur with this alternative.

Hydrology and Drainage

None of the short-term impacts to water quality associated with grading, excavation and construction activities on the RHA would occur with this alternative since the area would not be developed. Additionally, the existing quality and quantity of storm water and urban runoff would not be impacted by this alternative as the RHA would not be altered from it's current condition.

Both this alternative and the proposed Project involve the development of large portions of the UPVA with recreational uses which would be expected to increase pollutant loadings, including hydrocarbons, fertilizers, and pesticides. This impact would be considered significant unless mitigated. Therefore, as with the proposed Project, development of this alternative has the potential to result in significant impacts associated with water quality and quantity. However, these would be reduced to less than significant levels with mitigation including implementation of a comprehensive Water Quality Management Plan.

Land Use and Relevant Planning

This alternative would exclude development on the RHA, therefore, the Coastal Permit on the RHA and approval of CUP's would not be required.

[4] Should implementation of this alternative occur, the configuration of this alternative would likely be modified to at least avoid, and potentially capitalize, on the existing cultural resources.

As with the proposed Project, the General Plan Amendment changing the land use designation on the UPVA from Recreational Passive to Recreational Active would also be required for portions of this property.

Similar to the proposed Project, this alternative is not anticipated to conflict with the policies of the City of Rancho Palos Verdes General Plan or Development Code.

Marine Resources

The impacts to marine resources, including construction-related impacts, and long-term impacts to marine plant or animal species, identified for the proposed Project would not occur with this alternative since only the UPVA would be developed.

However, development of this alternative would increase the recreational use value of the UPVA which may have a spill-over effect onto the area shoreline. Implementation of the recommended mitigation measures, including development of a visitor use plan, would reduce potential impacts to a less than significant level.

Noise

None of the construction-related noise impacts associated with development of the RHA would occur with this alternative. Additionally, new noise sources would not be developed on the RHA with implementation of this alternative.

When compared to the proposed Project, noise impacts from stationary sources associated with development of the UPVA would be greater due to a more intense development and the introduction of a greater number of active recreational uses (i.e., open play areas, ballfields, soccer fields, etc.). However, noise impacts from mobile sources would be less than with the proposed Project due to less traffic generation. As with the proposed Project, sensitive receptors along numerous roadways in the Project vicinity currently experiencing excessive noise levels would experience a worsening of this condition due to traffic-generated noise increases. However, as with the proposed Project, this alternative is not anticipated to result in a substantial permanent increase in ambient noise levels.

Public Health and Safety

When compared to the proposed Project, the potential to create a significant hazard to the public or the environment on the UPVA through the disposal of hazardous materials would be similar with this alternative since hazardous materials which potentially occur on the UPVA would be disturbed by construction activities.

Potential impacts for this alternative associated with hazardous materials on the RHA would not occur as existing structures would not be disturbed.

The potential golf safety impacts identified for the proposed Project would not occur with this alternative since a golf course would not be developed on the UPVA. However, safety impacts associated with other athletic sports (i.e., baseball, softball, soccer) would occur as this alternative proposes development of these uses on the UPVA. As with the proposed Project, safety impacts associated with stray balls on the UPVA would be considered less than significant with mitigation.

Impacts associated with the proposed Project's golf course on the RHA would not occur.

When compared to the proposed Project, the potential to interfere with an adopted emergency evacuation plan for the area would not occur with this alternative since construction activities associated with the proposed Project would not occur along Palos Verdes Drive South.

Public Services and Utilities

When compared to the proposed Project, this alternative would result in a similar demand for fire protection, police protection, and schools as it would also involve recreational uses on the UPVA. Impacts to public services, however, associated with the RHA would not occur.

As with the proposed Project, this alternative would require an incremental expansion of the existing sewerage, water, electrical, gas and telephone systems. Due to the development of similar uses (i.e., recreational), this alternative would result in a similar demand for water, electricity, and gas, as well as similar wastewater and solid waste generation in association with the UPVA. Impacts to public utilities associated with the RHA, however, would not occur.

Traffic and Circulation

According to the Traffic Impact Analysis, three intersections presently operate at Level of Service "E" or "F" during the peak hours. Implementation of the proposed Project would have a significant impact at five study area intersections, although with mitigation, impacts would be reduced to a less than significant level. This alternative would result in fewer average daily trips than would the proposed Project: it is projected to generate a total of approximately 300 average daily trips (ADT). In the absence of a site plan with acreage specifics, this estimate was derived based upon an average trip rate of 4.59 vehicle trip ends of per acre for City Parks.[5] In contrast, the currently proposed development would generate 6,263 ADT (refer to Section 5.12, *Traffic and Circulation*). Therefore, implementation of this alternative could potentially impact fewer than five study area intersections.

[5] Trip Generation - 6th Edition, Volume 1 of 3, Institute of Transportation Engineers, Page 592.

Recreation

None of the physical impacts associated with development of the proposed golf course on the RHA would occur with this alternative since development of the RHA would not occur.

Since this alternative would attract fewer visitors to the Project area than the proposed Project, it would not physically deteriorate existing recreational facilities. Implementation of this alternative would result in a less than significant impact in this regard, as would implementation of the proposed Project.

Implementation of this alternative would result in greater physical impacts to the environment on the UPVA due to a more intense development than the proposed Project. As with the proposed Project, compliance with the City Development Code and implementation of mitigation measures would reduce impacts to a less than significant level for this alternative.

This alternative would result in fewer impacts associated with recreational policies and recommendations identified in the City's Parks Master Plan, and General Plan for the UPVA, since it is assumed that the POU would incorporate each of these into the Program. However, it should be noted that the beneficial recreational impacts associated with completion of the City's path and trails network in the RHA would not occur with this alternative. Nonetheless, other recreational uses would result.

Implementation of this alternative would involve development of the UPVA consistent with the POU (refer to Table 5.7-1, *Program of Utilization*, and Exhibit 5.7-4, *Program of Utilization Conceptual Plan*). Therefore, the amendment to the POU, and associated written concurrence from the Secretary of the Interior, required for the proposed Project would not be required with this alternative.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill only one of the objectives identified in Section 3.4, *Project Objectives*: to provide additional public trails and recreational facilities on the publicly-owned Upper Point Vicente Site.

7.9 POINT VICENTE PARK ENHANCEMENT ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "Point Vicente Park Enhancement" Alternative was presented by the Save Our Coastline II (SOC II) citizens group. This alternative would involve only the UPVA, utilizing the areas by the City Hall for active recreation and gradually merging into more passive recreation areas near the bluffs (refer to Exhibit 7.6, *Point Vicente*

Park Enhancement Alternative). The majority of the land would be preserved or restored as native habitat with the participation of community groups. A series of trails would be designed to provide access to areas for views of the coastline and ocean or for more social activities. Landscaping to enhance the City Hall and conceal the maintenance yard would be provided. Overall, this alternative results in a less intensive development of the UPVA than does the proposed Project, or the Program of Utilization Alternative discussed above.

As this alternative focuses on an alternate use of the UPVA only, none of the impacts associated with development of the RHA would occur with this alternative.

The following discussion evaluates the potential environmental impacts associated with the Point Vicente Park Enhancement Alternative as compared to impacts from the proposed Project.

IMPACT COMPARISON TO PROPOSED PROJECT

Aesthetics/Light and Glare

Views across the UPVA from off-site vantage points would be less altered when compared to the proposed Project since views of the existing undeveloped lands and institutional buildings would be replaced with primarily preserved or restored native habitat. Generally, a greater amount of habitat enhancement and restoration (i.e., changing the weedy disturbed areas to conditions native to Coastal Southern California) would occur throughout the UPVA.

The aesthetic enhancement to the RHA resulting from Project implementation would not be achieved with this alternative since the vast parking lots and dilapidated structures would not be removed. None of the visual impacts associated with development of the proposed Project on the RHA would occur with this alternative.

Air Quality

Emissions associated with demolition, grading and construction activities on the UPVA would be substantially reduced with this alternative when compared to the

CPH Residential

Church

Handicapped Parking

Palos Verdes and California Native Garden

Existing Parking

Existing Tennis Court

Hawthorne Boulevard

Future Nature Trail (U.S. Coast Guard Property)

Future Viewpoint (U.S. Coast Guard Property)

Existing Heliport

City Hall

City Maintenance and Storage Area

(Nike Silos)

Interpretive Center

Coast Guard Lighthouse

Palos Verdes Drive South

R

S

CSS

CSS-A

SCS

A

LEGEND

- CSS-ARTEMISIA DOMINATED
- CSS-UNDIFFERENTIATED
- SOUTHERN CACTUS SCRUB
- SALTBRUSH (DISTURBED)
- AGRICULTURAL
- RESTORATION AND/OR REVEGETATION
- PALOS VERDES AND CALIFORNIA NATIVE GARDEN
- NATURE TRAIL
- HANDICAPPED ACCESS
- VIEW POINT W/BENCHES

NOTE: This exhibit depicts a design component of the Long Point Resort. In conjunction with the submittal of construction drawings/specifications to the City of Rancho Palos Verdes or other public agencies for building and similar permits, minor refinements may be made to the design shown on this exhibit, provided they are consistent with the intent and character of this exhibit, and are based upon an increased level of design/engineering information or are in response to legal/agency requirements.

SOURCE: FORMA

JN 10-034194-7978 • 01/01

LONG POINT RESORT EIR

Exhibit 7.6

proposed Project since only a limited amount of landform modification would be required to improve the park. The long-term emissions of NO_X and PM_{10} anticipated for the proposed Project would also not occur with this alternative. Significantly fewer average daily trips than the proposed Project would be generated with this alternative, therefore, unlike the proposed Project, emissions at buildout for this alternative would not exceed thresholds for ROG, NO_X and CO.

None of the air quality impacts associated with development of the proposed resort hotel and golf course in the RHA would occur with this alternative.

Biological Resources

As with the proposed Project, no biological impacts would occur on the RHA with this alternative as the RHA would not be altered from its current condition.

When compared to the proposed Project, this alternative would result in significantly fewer biological impacts in the UPVA since the majority of this site would be replaced with preserved or restored native habitat. None of the construction-related impacts and more long-term impacts associated with the proposed Project would occur with this alternative. Further, implementation of this alternative would result in more beneficial biological impacts than would be achieved from implementation of the Long Point Habitat Conservation Program.

Cultural Resources

When compared to the proposed Project, implementation of this alternative would result in lesser impacts to cultural resources since the majority of this site would be replaced with preserved or restored native habitat and impacts to the bunkers and missile silos would be avoided.

Development of the RHA is excluded from this alternative. Therefore, as with the proposed Project, no impacts to cultural resources on the RHA are anticipated to occur with this alternative.

Geology, Soils and Seismicity

Implementation of this alternative would expose fewer people and structures on the UPVA to potential adverse effects associated with seismic activity and geology and soils due to a less intensive development.

Development of the RHA is excluded from this alternative, therefore, none of the impacts associated with geology, soils, and seismicity anticipated on the RHA would occur with this alternative.

Hydrology and Drainage

The majority of the short-term impacts to water quality associated with grading, excavation and construction activities on the RHA would not occur with this alternative since only a limited amount of landform modification would be required to improve the park. Further, the increase in pollutant loadings, including hydrocarbons, fertilizers, and pesticides anticipated with the proposed Project's golf course would not occur with this alternative.

The existing quality and quantity of storm water and urban runoff on the RHA would not be impacted by this alternative as the RHA would not be altered from it's current condition.

Land Use and Relevant Planning

This alternative would exclude development on the RHA, therefore, the Coastal Permit on the RHA and approval of CUP's would not be required.

The General Plan Amendment changing the land use designation on the UPVA from Recreational Passive to Recreational Active which would be required with the proposed project would not be required for this Alternative since the proposed active recreational uses would occur in the area designated Institutional Public which surrounds the City Hall area.

Similar to the proposed Project, this alternative is not anticipated to conflict with the policies of the City of Rancho Palos Verdes General Plan or Development Code.

Marine Resources

The impacts to marine resources, including construction-related impacts, and long-term impacts to marine plant or animal species, identified for the proposed Project would not occur with this alternative since only the UPVA would be developed.

However, development of this alternative would increase the recreational use value of the UPVA which may have a spill-over effect onto the area shoreline. Implementation of the recommended mitigation measures, including development of a visitor use plan, would reduce potential impacts to a less than significant level.

Noise

None of the construction-related noise impacts associated with development of the RHA would occur with this alternative. Additionally, new noise sources would not be developed on the RHA with implementation of this alternative.

When compared to the proposed Project, noise impacts from stationary sources associated with development of the Park on UPVA would be less due to a less intense development and the preservation of the majority of the site in its natural condition. Additionally, noise impacts from mobile sources would be less than with

the proposed Project due to less traffic generation. As with the proposed Project, sensitive receptors along numerous roadways in the Project vicinity currently experiencing excessive noise levels would experience a worsening of this condition due to traffic-generated noise increases. However, as with the proposed Project, this alternative is not anticipated to result in a substantial permanent increase in ambient noise levels.

Public Health and Safety

When compared to the proposed Project, the potential to create a significant hazard to the public or the environment on the UPVA through the disposal of hazardous materials would be similar with this alternative. The need to conduct a Phase II level investigation on the UPVA to determine the level of potential contamination associated with the historic use of the property would also be required with this Alternative.

Potential impacts for this alternative associated with hazardous materials on the RHA would not occur as existing structures would not be disturbed.

The potential golf safety impacts identified for the proposed Project would not occur with this alternative since a golf course would not be developed on the UPVA. However, safety impacts associated with other athletic sports (i.e., baseball, softball, soccer) may occur as this alternative may involve the development of these uses in the area surrounding the City Hall. As with the proposed Project, safety impacts associated with stray balls on the UPVA would be considered less than significant with mitigation.

Impacts associated with the proposed Project's golf course on the RHA would not occur.

When compared to the proposed Project, the potential to interfere with an adopted emergency evacuation plan for the area would not occur with this alternative since construction activities associated with the proposed Project would not occur along Palos Verdes Drive South.

Public Services and Utilities

When compared to the proposed Project, this alternative would result significantly lesser demand for fire protection, police protection, and schools as it would involve less recreational uses on the UPVA. Impacts to public services, however, associated with the RHA would not occur.

As with the proposed Project, this alternative would require an incremental expansion of the existing sewerage, water, electrical, gas and telephone systems, although less than with the proposed Project. Due to the development of fewer recreational uses, this alternative would result in a lesser demand for water,

electricity, and gas, as well as lesser wastewater and solid waste generation in association with the UPVA. Impacts to public utilities associated with the RHA, however, would not occur.

Traffic and Circulation

According to the Traffic Impact Analysis, three intersections presently operate at Level of Service "E" or "F" during the peak hours. Implementation of the proposed Project would have a significant impact at five study area intersections, although with mitigation, impacts would be reduced to a less than significant level. This alternative would result in fewer average daily trips than would the proposed Project. Therefore, implementation of this alternative could potentially impact fewer than five study area intersections.

Recreation

None of the physical impacts associated with development of the proposed golf course on the RHA would occur with this alternative since development of the RHA would not occur.

Since this alternative would attract fewer visitors to the Project area than the proposed Project, it would not physically deteriorate existing recreational facilities. Implementation of this alternative would result in a less than significant impact in this regard, as would implementation of the proposed Project.

When compared to the proposed Project, implementation of this alternative would result in fewer physical impacts to the environment on the UPVA since the majority of the site would be retained as natural habitat.

This alternative would result in fewer impacts associated with recreational policies and recommendations identified in the City's Parks Master Plan and General Plan for the UPVA since a passive recreational use of the majority of the site would be consistent with the Plans' specified policies.

The beneficial recreational impacts associated with completion of the City's path and trails network in the RHA anticipated with the proposed Project would not occur with this alternative.

ABILITY TO MEET PROJECT OBJECTIVES

Implementation of this alternative would fulfill only one of the objectives identified in Section 3.4, *Project Objectives*: to provide additional public trails and recreational facilities on the publicly-owned Upper Point Vicente Site.

7.10 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Section 15126.6 indicates that if the "No Project" Alternative is the “Environmentally Superior” Alternative, then the EIR shall also identify an environmental superior alternative among the other alternatives. Among the other alternatives assessed in this EIR, the No Resort Villas - Option B Alternative would be considered the environmentally superior Alternative. This is based on this alternative’s ability to reduce the significance of impacts on Biological Resources. Although certain golf safety impacts associated with the relocated golf practice facility would be introduced onto the RHA, these would be considered as less than significant subsequent to compliance with design recommendations by a golf safety expert. Further, it should be noted that this alternative would attain all of the objectives cited for the proposed Project.

8.0 INVENTORY OF MITIGATION MEASURES

AESTHETICS/LIGHT AND GLARE

SHORT-TERM IMPACTS

5.1-1 No mitigation measures are required. Also, refer to Mitigation Measure 5.1-4.

LONG-TERM IMPACTS

5.1-2 No mitigation measures are required.

RANCHO PALOS VERDES GENERAL PLAN

5.1-3 No mitigation measures are required.

RANCHO PALOS VERDES COASTAL SPECIFIC PLAN

5.1-4a The proposed Golf Clubhouse shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitations set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

5.1-4b The two easternmost casitas, as well as any and all tennis courts or other structures, shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within horizontal limits of the Point Fermin corridor from Palos Verdes Drive South does not exceed the 16-foot height limitation set forth in the adopted Coastal Specific Plan, so that the view of Point Fermin is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

5.1-4c The resort Villa buildings shall be redesigned to the satisfaction of the City Planning Department so that the maximum finished height within the horizontal limits of the Catalina View Corridor from Palos Verdes Drive South conform to the height restrictions set forth in the adopted Coastal Specific Plan - in particular that buildings in Height Zone 1

(closest to Palos Verdes Drive) do no exceed the 16-foot height limitation and those in Height Zone 2 do not exceed the 30-foot height limitations, so that the view of Catalina Island is not obstructed. Alternatively, the Applicant may submit an application for a conditional use permit to the City Planning Commission to construct buildings in excess of 16 feet as permitted under Section 17.22.D of the Development Code.

LIGHT AND GLARE

5.1-5 No mitigation measures are required.

CUMULATIVE IMPACTS

5.1-6 No mitigation measures are required.

AIR QUALITY

SHORT-TERM AIR QUALITY IMPACTS

5.2-1 Additional measures beyond adherence to City Development Code and SCAQMD Rules are not required.

LONG TERM OPERATIONAL IMPACTS

5.2-2 No mitigation measures are available.

CONSISTENCY WITH AIR QUALITY MANAGEMENT PLAN

5.2-3 No mitigation measures are available.

CUMULATIVE IMPACTS

5.2-4 SCAQMD Standards and City Municipal Code requirements would be implemented on a project-by-project basis.

BIOLOGICAL RESOURCES

SPECIAL STATUS BIOLOGICAL RESOURCES

5.3-1a A pre-construction survey for the island green dudleya shall be conducted during the peak flowering period prior to Grading Permit Issuance (approximately April through June), by the Project biologist. The limits of each impacted dudleya location shall be clearly marked with lath and brightly colored flagging.

If any of the dudleya is located in the impact area, the loss of the dudleya shall be mitigated by seed and corm collection, and revegetation into a suitable mitigation site in the undeveloped portion of the Project site or at an off-site location. A qualified biologist shall be selected by the Applicant, subject to the approval of City staff, to prepare and implement the mitigation plan. The detailed mitigation plan shall include the following requirements:

- The existing locations of dudleya shall be monitored every two weeks by the Project biologist to determine when the seeds are ready for collection. A qualified seed collector shall collect all of the seeds from the plants to be impacted when the seeds are ripe.

- Following the seed collection, the corms shall be dug up, cleaned, and stored by a qualified nursery or institution with appropriate storage facilities. The top 12 inches of topsoil from the dudleya locations shall be scraped, stockpiled, and used at the selected mitigation site.

- This mitigation shall be conducted concurrent with the coastal sage scrub and coastal bluff scrub mitigation. The site shall be located in dedicated open space on the Project site or at an offsite mitigation site. The selected site should not attempt to enhance existing populations.

- The dudleya mitigation site shall be prepared for seeding as described in a conceptual restoration plan.

- The topsoil shall be respread in the selected location as approved by the Project biologist. Approximately 60 percent of the seeds and corms shall be spread/placed in the fall following soil preparation. Forty percent of the seed and corms shall be kept in storage for subsequent seeding, if necessary.

- The plan shall include detailed descriptions of maintenance appropriate for the site, monitoring requirements, and annual reports requirements. In addition, the Project biologist shall have the authority to suspend any operation on the Project site which is, in the Project biologist's opinion and confirmed by the City, not consistent with the restoration plan. Any disputes regarding the consistency of an action with the mitigation plan shall be resolved by the Applicant and the Project biologist.

- The performance criteria developed in the maintenance and monitoring plan shall include requirements for a minimum of 60 percent germination of the number of plants impacted. The performance criteria should also include percent cover, density, and seed production requirements. This criteria shall be developed by the Project biologist following habitat analysis of an existing high-quality dudleya habitat. This information shall be recorded by a qualified biologist.

- If the germination goal of 60 percent is not achieved following the first season, remediation measures shall be implemented prior to seeding with the remaining 40 percent of seed. Remedial measures shall include at a minimum: soils testing, control of invasive species, soil amendments, and physical disturbance (to provide scarification of the seed) of the planted areas by raking or similar actions. Additional mitigation measures may be suggested as determined appropriate by the Project biologist.

- Potential seed sources from additional donor sites shall also be identified in case it becomes necessary to collect additional seed for use on the site following performance of remedial measures.

5.3-1b Pre-construction special status plant surveys shall be conducted to determine the presence or absence of aphanisma, south coast saltscale, Catalina crossosoma, Santa Catalina Island desert-thorn, and Lyon’s pentachaeta. The focused surveys for these species shall be conducted during the appropriate blooming period (spring) prior to Demolition Permit Issuance. In the event any of these species are found to be present on the Project site, then mitigation measures shall be developed in consultation with the appropriate resource agencies if the status of the species and the size of the population warrant a finding of significance. Appropriate mitigation may include avoidance of the populations, relocation, or purchase of off-site populations for inclusion to adjacent open space areas.

5.3-1c Prior to Demolition Permit/Issuance, a focused survey for the Palos Verdes blue butterfly shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species, or purchasing of off-site habitat for this species.

5.3-1d Prior to Demolition Permit/Issuance, the Project Applicant shall comply with the FESA with regards to any impacts to the coastal California gnatcatcher. The LPHCP has been developed to ensure compliance with FESA and to be consistent with the City's NCCP, when adopted. The LPHCP would provide for the creation of 16.80 acres of new coastal sage scrub habitat area (UPVA Conservation Planning Area and Recreation Area). This, combined with the 14.63 acres of existing coastal sage scrub habitat, the 4.44 acres of coastal bluff scrub habitat, and the 3.87 acres of rocky shore/coastal bluff habitat that would be retained, would result in the protection and creation of a total of 39.74 acres of coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff habitat. The 16.80 acres of restored and newly created habitat represents a replacement ratio of 3.4 to 1 (3.4 acres restored/created habitat for every 1 acre removed) for the 5.00 acres of coastal sage scrub and coastal bluff scrub impacted by the proposed Project. With the addition of 22.94 acres of preserved coastal sage scrub, coastal bluff scrub, and rocky shore/coastal bluff to the mitigation program, the compensation ratio is over 7 to 1, far above typical mitigation standards of 2 to 1 and 3 to 1.

5.3-1e Thirty days prior to commencement of demolition activities, a qualified biologist shall conduct a survey to determine whether Cooper's hawk, burrowing owl, northern harrier, white-tailed kite, prairie falcon, and peregrine falcon, or other raptor species, are nesting in or adjacent to the impact area. In the event nesting is not occurring, construction work shall proceed. In the event an active nest is present, construction work shall be prohibited within 500 feet of the nest (or as otherwise determined by the Project biologist) until fledglings have left the nest. Results of the surveys shall be provided to USFWS, CDFG, and the City of Rancho Palos Verdes.

5.3-1f Prior to Demolition Permit Issuance, a focused survey for the Pacific pocket mouse shall be conducted according to methods approved by the USFWS. In the event that the focused surveys find that this

species occurs on the Project site, then authorization from the USFWS shall be required. Authorization can occur through either Section 7 or 10 of the FESA. The authorization process would require the preparation of a Biological Assessment or LPHCP which would include a mitigation plan to avoid or minimize impacts to this species. This mitigation may include avoiding the habitat of this species or purchasing off-site habitat for this species.

SENSITIVE NATURAL COMMUNITY

5.3-2a The LPHCP shall be implemented prior to the Certificate of Occupancy, to the satisfaction of the City. The Program shall contain habitat restoration and enhancement design details for the Conservation Planning Areas through revegetation with drought-tolerant species, transitional areas of planting between the Conservation Area and Resort Hotel/Recreation Planning Areas, and design for long-term sustainability. In addition, the Project's drainage and surface runoff shall be directed away from the bluff habitat areas in the RHA.

5.3-2b The seed mix for the coastal bluff scrub restoration area shall include California box-thorn and woolly sea-blite.

5.3-2c Prior to Grading Permit issuance, fencing shall be installed along the edge of all conservation, restoration, and enhancement areas to discourage human encroachment into those areas that would not be encroached upon except as a result of Project implementation.

5.3-2d Prior to Grading Permit issuance, signs shall be placed on all fencing installed along the edge of all conservation, restoration, and enhancement areas prohibiting entrance into these areas.

5.3-2e Prior to the issuance of Building Permits, areas adjacent to golf course activities shall be protected in compliance with City requirements.

5.3-2f Earth-moving equipment shall not maneuver in areas outside the identified limits of grading in order to avoid disturbing open space areas that are proposed to remain undeveloped. Prior to Grading Permit issuance, the natural open space limits shall be marked by the construction supervisor and the Project biologist. These limits shall be identified on the grading plan. The Applicant shall submit a letter to the City of Rancho Palos Verdes prior to Grading Permit issuance verifying that construction limits have been flagged in the field. No earth-moving equipment shall be allowed within the open space areas.

5.3-2g The Project development plan shall be modified to avoid any construction/development impact upon coastal bluff scrub and disturbed coastal bluff scrub areas.

5.3-2h The Project development plan shall be modified to avoid any construction/development impact to any areas subject to jurisdiction of the ACOE and CDFG. If these areas are not avoided, prior to Grading Permit issuance, the Project Applicant shall receive a permit and/or agreement from the ACOE and CDFG for any impacts to areas within their jurisdiction as part of the proposed Project.

Prior to the final submittal of an application for an ACOE permit or CDFG agreement, the Project Applicant shall develop a riparian restoration plan for the ACOE, CDFG, and City of Rancho Palos Verdes. The objective of the mitigation is to ensure no net loss of habitat values as a result of the Project. Prior to implementation, a detailed restoration program shall be developed and shall contain the following items:

- *Responsibilities and qualifications of the personnel to implement and supervise the plan*. The responsibilities of the landowner, specialists and maintenance personnel that would supervise and implement the plan shall be specified.

- *Site selection*. The site for the mitigation shall be determined in coordination with the Project Applicant, City staff, and resource agencies. The site shall be located in a dedicated open space area and shall be contiguous with other natural open space.

- *Site preparation and planting implementation.* Site preparation shall include: 1) protection of existing native species, 2) trash and weed removal, 3) native species salvage and reuse (i.e. duff), 4) soil treatments (i.e., imprinting, decompacting), 5) temporary irrigation installation, 6) erosion control measures (i.e., rice or shallow wattles), 7) seed mix application, and 8) container species.

- *Schedule*. A schedule shall be developed which includes planting to occur in late fall and early winter, between October and January 30.

- *Maintenance plan/guidelines.* The maintenance plan shall include: 1) weed control, 2) herbivory control, 3) trash removal, 4) irrigation system maintenance, 5) maintenance training, and 6) replacement planting.

- *Monitoring Plan.* The monitoring plan shall include: 1) qualitative monitoring (i.e., photographs and general observations), 2) quantitative monitoring (i.e., randomly placed transects), 3) performance criteria as approved by the resource agencies, 4) monthly reports for the first year and bimonthly reports thereafter, and 5) annual reports which shall be submitted to the resource agencies for five years. The site shall be monitored and maintained for five years to ensure successful establishment of riparian habitat within the restored and created areas; however, if there is successful coverage prior to five years, the Project Applicant may request from ACOE and CDFG to be released from monitoring requirements.

- *Long-Term Preservation.* Long-term preservation of the site shall be outlined in the conceptual mitigation plan to ensure the mitigation site is not impacted by future development.

- *Performance standards shall be identified and shall apply for the restoration of riparian habitat.* Revegetation shall be considered successful at three years if the percent cover and species diversity of the restored and/or created habitat areas are similar to percent cover and species diversity of adjacent existing habitats, as determined by quantitative testing of existing and restored and/or created habitat areas. Testing shall be conducted by a qualified biologist selected by the Applicant and subject to approval by City staff.

5.3-2i A revegetation program shall be implemented in accordance with the landscape palette developed for the LPHCP or as approved by the agencies. The revegetation program shall be submitted to the City of Rancho Palos Verdes for review and approval prior to Grading Permit issuance.

5.3-2j Prior to the initiation of grading activities, a 100-foot (or such other distance determined appropriate by a biological monitor) buffer area, shall be established around each gnatcatcher nest, during the nesting season (February-July) to avoid indirect noise impacts. No heavy equipment operation, or otherwise high noise generating activity, shall occur within the buffer area until nesting activity has ceased. Results of the surveys and nest monitoring will be provided to USFWS, CDFG, and the City of Rancho Palos Verdes. The biological monitor shall be selected by the Applicant and subject to approval by City staff.

5.3-2k Prior to the issuance of occupancy permits, a lighting plan shall be submitted to the City of Rancho Palos Verdes for review and approval to demonstrate that lighting from the proposed Project will be directed away from natural open space areas on and adjacent to the Project site, as well as proposed biological resources mitigation sites.

WILDLIFE MOVEMENT

5.3-3 No mitigation measures are required.

LOCAL POLICIES/ORDINANCES

5.3-4 No mitigation measures are required.

CUMULATIVE

5.3-5 No mitigation measures are required.

CULTURAL RESOURCES

ARCHEOLOGICAL/HISTORICAL RESOURCES

5.4-1a Site CA-LAN-103 (Rock Shelter and Shell Midden). The Project Applicant shall retain a qualified, City approved archaeologist to conduct archaeological testing in order to determine the depth, breadth, and nature of the contents of Site CA-LAN-103, and whether or not it qualifies as a historical resource. Such a testing program would consist of scientific excavation units, artifact analysis, and report preparation for a sample of the site area, so that a conclusion can be reached regarding site integrity and the research potential of its intact deposits.

If the testing program determines that Site CA-LAN-103 qualifies as a historical resource as defined in CEQA Guidelines Section 15064.5, three options are available to reduce impacts to a less than significant level:

- Capping the site to preserve in situ;
- Redesign to avoid impacting Site CA-LAN-103; or
- Retain a qualified archaeologist to prepare and implement a data recovery plan prior to issuance of a Grading Permit for the immediate area of CA-LAN-103.

5.4-1b Site 19-180589 (Base End Stations). Since the proposed Project would have no effect on the Base End Stations, the only further

requirement regarding this site is to ensure its proper protection during construction activities. No other treatment is recommended for this historical resource.

5.4-1c Site 19-180590 (Battery 240). Due to the proposed Project's potential to cause a change in the significance of this historical resource, one of the following mitigation options shall be implemented prior to Demolition Permit issuance:

- Option 1 (preferred). Project effects to this site shall be avoided by preserving the portion of the site within the Project area and incorporating it into the Project design in such a way as to retain the historic characteristics of this resource.

- Option 2 (if demolition is unavoidable). The historical and physical information about Battery 240 is to be preserved through comprehensive documentation at a level compatible to Level 2 of the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER).

Established in 1933 and 1967, respectively, HABS and HAER have been adopted by the National Park Service as the primary methods of preserving important information about architectural, engineering, and industrial sites of historic value, and are often initiated as the means of mitigating adverse effects of federal undertakings on such sites (NPS 1993:1). At Level 2, HABS/HAER requires detailed textual and photographic recordation, sketch maps and drawings of structural features, and historical documentation to record the subject property's history. The results of such documentation are to be made accessible to the public at one or more local repositories, such as the local history collection of the Palos Verdes Library and/or the Palos Verdes Historical Society's museum.

5.4-1d Due to the likelihood of encountering subsurface features or buried artifacts from the WWII era in the vicinity of Battery 240, earth-moving activities near the site shall be monitored by a qualified archaeologist.

5.4-1e Site 19-180591 (Nike Air Defense Site La-55-L). One of the following two mitigation options shall be implemented regarding disposition of Site 19-180591 prior to Demolition Permit issuance:

- Option 1. Project effects to this site shall be avoided by preserving components of the site and incorporating them into the Project design in such a way as to retain the historic characteristics of this resource.

- Option 2 (if demolition is unavoidable). The Project effects to this site shall be mitigated through recordation procedures compatible to Level 2 of HABS/HAER, identical to those recommended for Battery 240.

5.4-1f Site 19-180593 (Documented Long Point Defense District). Refer to Mitigation Measures 5.4-1b, 5.4-1c and 5.4-1e. If these recommendations are adopted, the Project's potential effects on the documented historic district would be reduced to a level less than significant.

5.4-1g 6621 Beachview Drive (Ishibashi Farmhouse Complex). Although not eligible for listing in the California Register, this farmhouse complex qualifies as a point of local historical interest. In order to reduce the Project impacts on the complex, the historical and physical data about the buildings, structures, and other related features shall be documented prior to Demolition Permit issuance.

Due to the local nature of the complex's significance, HABS-compatible procedures such as those recommended for Battery 240 and Nike Air Defense Site LA-55-L do not appear to be an appropriate approach in this case. Instead, the recommended scope of work consists of a general documentation of the complex's history and current conditions, and limited photographic recordation of its physical characteristics. The results of these procedures should be housed at one or more local repositories to facilitate public access.

5.4-1h Prior to Grading Permit issuance, the Project developer shall provide verification that a qualified archaeologist and/or an archeological monitor have been retained to implement the archeological monitoring program. This verification shall be in the form of a letter from the Project developer to the City of Rancho Palos Verdes.

The qualified archeologist shall attend any preconstruction meetings to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. The qualified archaeologist or archaeological monitor shall be present on-site during construction activity involving work in previously undisturbed soils. The archaeologist's duties shall include monitoring, evaluation, analysis of collected materials, and preparation of a monitoring results report.

5.4-1i In the event that cultural resources are discovered during grading/ construction activities, the archeologist shall have the authority to divert or temporarily halt ground disturbance operations in the area of

discovery to allow evaluation of potentially significant cultural resources. The archaeologist shall contact City staff at the time of discovery. The significance of the discovered resources shall be determined by the archeologist, in consultation with City staff. City staff must concur with the evaluation procedures to be performed before construction activities are allowed to resume. For significant cultural resources, a Research Design and Data Recovery Program shall be prepared and carried out to mitigate impacts. Any human bones of Native American origin shall be turned over to the appropriate Native American group for reburial.

5.4-1j All cultural remains uncovered during grading/construction activities shall be cleaned, cataloged and permanently curated with an appropriate institution. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the areal. Faunal material shall be identified as to species. Speciality studies shall be completed as appropriate.

PALEONTOLOGICAL RESOURCES

5.4-2a Prior to Grading Permit issuance, the Project developer shall provide a letter of verification to the City of Rancho Palos Verdes stating that a qualified paleontologist has been retained to implement the monitoring program. The qualified paleontologist shall attend the preconstruction meeting to consult with the excavation contractor. The paleontologist's duties shall include monitoring, salvaging, preparation of collected materials for storage at a scientific institution that houses paleontological collections and preparation of a monitoring results report. These duties are defined as follows:

5.4-2b The paleontologist or paleontological monitor shall be on-site to inspect for fossils during all excavation/grading activities. Monitoring shall be done full-time in those formations with a high sensitivity rating, and shall be half-time in those formations with a moderate sensitivity rating. The monitoring time may be increased or decreased at the discretion of the paleontologist in consultation with City staff. Monitoring shall occur only when excavation activities affect the geologic formation.

5.4-2c In the event that fossils are encountered during grading, the paleontologist shall have the authority to divert or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely fashion. Because of the

potential for recovery of small fossil remains, it may be necessary to set up a screen-washing operation on-site.

5.4-2d Fossil remains collected during grading/construction activities shall be cleaned, sorted, repaired, cataloged, and then (with the permission of the owner of the property where the remains were collected) stored in a local scientific institution that houses paleontological collections. The qualified paleontologist shall be responsible for preparation of fossils to a point of identification, and submittal of a letter of acceptance from a local qualified curation facility. If the fossil collection is not accepted by a local qualified facility for reasons other than inadequate preparation of specimens, the Project paleontologist shall contact City staff to suggest an alternative disposition of the collection.

BURIAL SITES

5.4-3 In the event human remains are discovered during grading/ construction activities, work shall cease and an appropriate representative of Native American Indian groups and the County Coroner shall both be informed and consulted, as required by State law.

CUMULATIVE IMPACTS

5.4-4 No mitigation measures are required.

GEOLOGY, SOILS AND SEISMICITY

SEISMICITY

Rupture of a Known Earthquake Fault

5.5-1 No mitigation measures are required.

Strong Seismic Ground Shaking

5.5-2a Prior to Grading Permit issuance, additional design-level geotechnical studies shall be performed to provide the adequate level of information to properly design and engineer the Project. The Applicant shall submit a Geotechnical Report for review and approval by the City's Geotechnical Consultant addressing the following:

- The Report shall primarily involve assessment of potential soil related constraints and hazards such as slope and sea cliff instability, sea cliff erosion, or related secondary seismic impacts, where determined to be appropriate by the City's Geotechnical Consultant;

- The Report shall include an evaluation of potentially expansive soils and recommend construction procedures and/or design criteria to minimize the effect of these soils on the proposed development; and

- The Report shall identify appropriate mitigation measures and be completed in the manner specified by the City.

5.5-2b Prior to Grading Permit issuance, the Applicant shall submit a report by an engineering geologist indicating the ground surface acceleration from earth movement for the subject property. All structures within this development shall be constructed in compliance with the g-factors as indicated by the geologist's report. Calculations for footings and structural members to withstand anticipated g-factors shall be submitted for review and approval by the City's Geotechnical Consultant.

Seismically Induced Landslides

5.5-3 Refer to Mitigation Measure 5.5-7.

Other Seismically Induced Hazards

Liquefaction

5.5-4a No mitigation measures are required.

Ground Lurching

5.5-4b No mitigation measures are required.

Lateral Spreading

5.5-4c No mitigation measures are required.

Settlement

5.5-4d No mitigation measures are required.

Tsunamis

5.5-4e No mitigation measures are required.

SOILS

Erosion

5.5-5 Refer to Mitigation Measure 5.5-2. Also, refers to Section 5.6, *Hydrology and Drainage*.

Expansive Soils

5.5-6 Prior to Building Permit issuance, a layer of relatively non-expansive soils shall be placed beneath floor slabs. For building footings, the use of properly reinforced concrete, deep spread-footings, drilled-and-belled caissons, or drilled cast-in-place piles shall be utilized. As part of the geotechnical report for the final design of the Project, specific recommendations shall be provided by the geotechnical consultant. In addition, refer to Mitigation Measure 5.5-2.

UNSTABLE GEOLOGIC UNITS

Landslides

5.5-7a Prior to Building Permit issuance, permanent structures and structures of all-hours occupancy shall be placed landward of the existing City-approved building setback line on the RHA and the structural (building) setback line established by Neblett & Associates (July, 2000) on the UPVA.

5.5-7b Prior to Grading Permit issuance on the UPVA, a comprehensive subsurface investigation shall be conducted by the Applicant's geotechnical consultant regarding the postulated landslide located in the southeast corner of the UPVA. The investigation shall be conducted at Project design level, pursuant to City review requirements, and to the satisfaction of the City's Geotechnical Consultant. The study shall also include preparation of appropriate geologic cross sections to be used to perform slope/landslide stability analysis. Based on the results of the analysis, a mitigation concept/plan shall be implemented.

5.5-7c Prior to Grading Permit issuance, the Applicant shall submit a grading/drainage plan for review and approval by the Director of

Public Works and City's Geotechnical Consultant. Said plan shall incorporate the following design objectives:

- All surface and subsurface runoff shall be directed to the nearest acceptable drainage facility via sump pumps if necessary, as determined by the Director of Public Works;

- On-site drainage and subdrain systems shall not drain over the bluff top. All roof gutter drains shall be required to connect into a tight line drainage pipe or concrete swales that drain to an acceptable drainage facility, as determined by the Director of Public Works;

- A soils/geotechnical report addressing the extent of uncompacted fill and remedial grading on site shall be prepared. The report, including the recommended bluff protection measures and vibration monitoring system, shall be submitted for review and approval by the Director of Public Works and City's Geotechnical Consultant. Heavy vibrating compaction equipment shall not be allowed near the bluff face.

- Incorporate all recommendations of the approved soils/ geotechnical report into the construction design of the Project.

5.5-7d Prior to Grading Permit issuance, the location of groundwater monitoring wells with a combination of shallow (30 feet), intermediate (80 feet), and deep (200 feet), shall be identified and installed by the Applicant's Geotechnical Consultant to the satisfaction of the City's Geotechnical Consultant. These wells shall be monitored at a minimum on a monthly basis for the first five years after issuance of the Certificate of Occupancy. A monthly report shall be prepared presenting the groundwater level monitoring data and submitted to the City for review.

In the event the groundwater level monitoring data indicates either a rise of more than ten feet within the regional water table, or the presence of groundwater if no groundwater was documented immediately following installation of the well(s), additional wells shall be installed in order to assess the nature and extent of the changes in the groundwater conditions beneath the area. If this condition were to occur, a well drilling plan shall be submitted to the City for review by the City's Geotechnical/Hydrogeologic Consultant.

5.5-7e A biannual reconnaissance of the UPVA and of the sea cliffs shall be performed for at least five years after issuance of the Certificate of Occupancy, as indicated by the Director of Public Works, to assess

the presence of seeps or springs which may develop overtime. The result of the evaluation shall be included in the appropriate monthly groundwater monitoring report with recommendations to mitigate any adverse seepage noted during the reconnaissance.

Sea Cliff Retreat

5.5-8a Refer to Mitigation Measure 5.5-7a.

5.5-8b Prior to Demolition Permit, a Construction Monitoring Plan shall be prepared to protect coastal resources within and surrounding proposed development areas during construction phases of the Project. The Plan shall be submitted to the Director of Community Development for review and approval. The Plan shall also identify measures for the protection of resources and monitoring procedures to determine compliance. Such measures include, but are not limited to, Best Management Practices, erosion control measures and protective fencing.

Cumulative

5.5-9 No mitigation measures are required.

HYDROLOGY AND DRAINAGE

DRAINAGE AND RUNOFF

5.6-1 The City may require that the Applicant utilize slant drains for discharge over the bluffs. If, the City determines that the slant drains are required, the design of the slant drains shall be completed in accordance with the City of Rancho Palos Verdes' City Engineer's standards during the design phase of the Project. Issues that would be addressed in the design phase include: outlet siting, geotechnical considerations, and wave action impacts on the structures.

WATER QUALITY - CONSTRUCTION

5.6-2 Prior to Grading Permit issuance and as part of the Project's compliance with the NPDES requirements, a Notice of Intent (NOI) shall be prepared and submitted to the Los Angeles Regional Water Quality Control Board providing notification and intent to comply with the State of California general permit. Also, a Storm Water Pollution Prevention Plan (SWPPP) shall be completed for the construction activities on-site. A copy of the SWPPP shall be available and implemented at the construction site at all times. The SWPPP shall

outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the "maximum extent practicable."

WATER QUALITY - LONG TERM

5.6-3 Prior to Grading Permit issuance, the Applicant shall prepare, to the satisfaction of the Public Works Director, a Water Quality Management Plan, which includes Best Management Practices (BMPs), Structural Measures, and Adaptive Management, under the guidelines in *Development Planning for Storm Water Management-A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* prepared by Los Angeles County Department of Public Works dated May 2000. The SUSMP is a new National Pollutant Discharge Elimination System (NPDES) Permit requirement for Los Angeles County.

It was determined that the current Water Quality Management Plan did not meet the SUSMP requirements for the design of several Standard BMPs. The Water Quality Management Plan shall be revised to include the additional Standard BMPs listed below:

From the *California Storm Water Best Management Practice Handbook - Construction Activity*:

CA 20 Solid Waste Management - This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas.

From the *California Storm Water Best Management Practice Handbook - Industrial/Commercial*:

SC 3 Vehicle and Equipment Washing & Steam Cleaning - This BMP provides regulations for the cleaning of equipment used on-site. The BMP requires the consideration of utilizing off-site commercial washing and steam cleaning business. If on-site washing is preferred, designated wash areas must be identified and designed to the standards listed in the handbook.

SC 4 Vehicle and Equipment Maintenance and Repair - This BMP details appropriate measures to keep oil and grease, heavy metals and toxic material from coming in contact with stormwater runoff.

SC 5 Outdoor Loading/Unloading of Materials - This BMP describes measures to prevent and reduce the discharge of pollutants to stormwater from outdoor loading and unloading of materials. The primary design features to reduce pollution are: covering the loading/unloading docks; preventing storm run on; and containing spills.

Treatment BMPs

Two areas identified in the impact analysis as needing additional mitigation are the proposed east swale and those golf course drainage areas not addressed in the Water Quality Management Plan.

The east swale does not meet the minimum criteria for optimal swale performance as detailed in Appendix B, Section B.13 of the SUSMP Manual. Specifically, the hydraulic residence time for the eastern swale is less than the 5 minute optimum criteria. Therefore, the swale shall either be lengthened, using a large radius curved path or if it is not possible to lengthen the swale, the swale shall be enlarged by increasing the flow depth and/or swale width. If none of these options are feasible, detention to attenuate flows shall be incorporated as part of a treatment train.

For those areas of the golf course which have been identified as not receiving specific treatment before discharging into natural areas or storm drains, appropriate treatment shall be incorporated into the Project. Appropriate treatment is either vegetative swales, enhanced vegetated swales utilizing check dams and wide depressions, a series of small detention facilities designed similarly to a dry detention basin, or a combination of these treatment methods into a treatment train. The Water Quality Management Plan shall address treatment for all areas of the golf course to assure that the runoff from the golf course is treated to the “maximum extent practicable.”

In order for the vegetation swales to be effective in the removal of potential pollutants, the swales shall be treated as a water quality feature and shall be maintained in a different manner than the turf of the golf courses. Specifically, pesticides, herbicide, and fertilizers, which may be used on the golf course turf shall not be used in the vegetation swales.

All swales or basins, shall be designed to treat the First Flush Treatment per the SUSMP criteria of designing mitigation to treat the volume of runoff from the 0.75" of rainfall. This treatment along with

other the other components of the WQMP shall fulfill the requirements of the SUSMP.

Water Quality Monitoring and Adaptive Management Plan

The Water Quality Management Plan does not address BMP maintenance nor does it detail how the water quality monitoring would be completed and how the results would affect the Adaptive Management Plan. Additional mitigation required includes a comprehensive Water Quality Monitoring and Adaptive Management Plan. The Plan shall addresses the following issues:

- BMP Maintenance - Maintenance for the treatment BMPs (filtration units, swales, detention basins) shall be performed at specific intervals depending on the specific BMP. At a minimum the BMPs shall be maintained at the beginning of the rainy season (October 15), at least once during the rainy season, and following the rainy season (April 15). Maintenance for swales shall consist of mowing, irrigation maintenance, and sediment removal. Mowing shall take place on an as-needed basis to maintain optimal grass height. Filtration units shall be maintained and inspected once per month, after each storm event, and at the end of the dry season. Detention basins shall be inspected based on the minimum standards above and sediment shall be removed on an as-needed basis pending the results of monthly inspections during the rainy season.

- Proof of BMP Maintenance and Inspection - The plan shall identify who is responsible for maintenance and inspection. The plan shall also set forth a method for logging, tracking, and reporting BMP maintenance and inspection to the appropriate City officials.

- Water Quality Monitoring - The plan shall identify who will perform and be responsible for the monitoring of the treatment BMPs. The monitoring shall take place for at least 5 years post construction. Monitoring shall be completed for a minimum of 5 storms per year and twice during the dry weather months. Monitoring shall include gathering data on flow measurement, and constituent levels for both pre- and post-treatment. This information shall be logged, tracked, and reported to the appropriate City officials.

- Adaptive Management Plan - Using the BMP inspection, maintenance, and monitoring data collected on a yearly basis,

an adaptive management plan shall be issued on an annual basis for a 5-year period once construction is completed. The adaptive management plan shall not only report the findings of inspection, maintenance, and monitoring, it shall utilize this information to determine any necessary changes in the current WQMP. The report shall also specifically discuss the effectiveness of the Golf Course Management Portion of the Water Quality Management Plan. The Plan shall be submitted to the City for their review and approval.

CUMULATIVE

5.6-4 Impacts would be mitigated on a case-by-case basis.

LAND USE AND RELEVANT PLANNING

ESTABLISHED COMMUNITY

5.7-1 No mitigation measures are required.

GENERAL PLAN

5.7-2 No mitigation measures are required.

COASTAL SPECIFIC PLAN

5.7-3 No mitigation measures are required.

DEVELOPMENT CODE/ZONING ORDINANCE

5.7-4 No mitigation measures are required.

PROGRAM OF UTILIZATION

5.7-5 An Amendment to the Program of Utilization shall be prepared to concur with the uses proposed for the UPVA by the Long Point Resort Project. Approval of the Amendment to the POU shall be obtained in writing from the Department of the Interior prior to Grading Permit Issuance.

CUMULATIVE

5.7-6 No mitigation measures are required.

MARINE RESOURCES

CONSTRUCTION

5.8-1a Prior to Grading Permit issuance, the Project Applicant shall prepare/implement the following: (1) Storm Water Pollution Prevention Plan (SWPPP); (2) Best Management Practices (BMPs) identified within the State of California "California Storm Water Best Management Practice Handbook for Construction Activity"; and (3) Construction Erosion Control Plan prior to site construction.

These plans and documents shall identify dry season and wet season runoff control measures, source control, and or treatment controls that avoid and/or mitigate potential soil erosion, runoff pollutants, and other stormwater constituents.

5.8-1b Prior to Grading Permit issuance, a Storm Water Pollution Prevention Plan shall be prepared by the Applicant. This Plan shall identify source control and/or treatment control BMPs that avoid and/or mitigate runoff pollutants at the specific site to the "maximum extent practical". BMPs shall be developed to mitigate for potential adverse impacts from nutrients, heavy metals, toxic chemicals related to construction and cleaning; waste materials such as concrete wash water, paints and paint equipment, wood, paper and concrete materials related to building materials and packaging, food containers and sanitary wastes; and fuels, lubricants, and other toxicants related to construction equipment and its maintenance.

5.8-1c Prior to Grading Permit issuance, an Erosion Control Plan shall be prepared by the Applicant and submitted to the City of Rancho Palos Verdes for approval. Specific BMPs in the Erosion Control Plan shall include:

- Water trucks shall be used during all grading activities to prevent visible dust emissions.
- All trucks hauling debris or excavated materials shall be covered or maintain at least 2 feet of freeboard;
- No grading shall occur during periods of high velocity winds exceeding 30 miles per hour;
- Enclose, cover, water twice daily, or apply non-toxic chemical stabilizers to exposed stockpiles with five percent or greater silt content.

- During the rainy season (October-April) or if slopes are generally exposed to erosion, the slopes shall be stabilized and compacted, and/or temporarily hydroseeded.

- Silt fencing, hay bales, sand bags, temporary detention basins, and other methods that prevent the transport of dust or eroded soils into the marine environment shall be implemented.

- During the rainy season, silt fences shall be installed around the perimeter of the construction site until all grading has been completed.

- The construction site shall be monitored by a state-licensed civil engineering firm during construction activities and any storm events to ensure that all BMPs have been implemented and that the BMPs are effective at minimizing and avoiding dust generation or the transport of stormwater into the marine environment.

5.8-1d Prior to commencement of grading/construction activities, contractors shall provide workers with specific guidelines to avoid and minimize disturbances to the rocky intertidal habitat and associated plant and animal communities while working on the beaches in the Project area and to remove all debris from the shoreline following completion of impact sill construction.

5.8-1e In addition to standard BMP's employed for storm drain construction, the following BMPs shall be implemented during grading/construction activities to ensure that impacts to shoreline habitats and shoreline organisms are avoided:

- All beach vehicular movement shall be limited to the backshore environment behind the beach berm.

- All construction debris shall be removed from the site as often as deemed necessary by the City's Construction Monitor to prevent the material from being washed out to sea on the high tides.

- Coastal protection devices shall minimize intrusion into sand beach habitat. Any sand beach habitat that is disturbed during the construction habitat shall be restored to its natural state following the completion of construction.

5.8-1f A construction-period Water Quality Monitoring Program shall be implemented that would include monitoring of suspended solids and

runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. If it is determined that tide pool or ocean water quality has been degraded by construction activities, then adaptive management techniques shall be implemented to correct water quality violations in order to prevent adverse effects on marine organisms.

LONG-TERM

5.8-2 A comprehensive Water Quality and Marine Resources Monitoring Program shall be conducted for a period of five years following completion of resort construction to ensure that source controls and BMPs are satisfactorily protecting the beneficial uses of the receiving waters and marine life. Yearly monitoring reports shall detail the results of the field surveys. If the yearly conclusions indicate that water quality and/or the marine life in the vicinity of the Long Point Resort has been adversely affected, then adaptive management strategies shall be implemented to correct runoff control deficiencies. If at the end of the fifth year the results indicate that the beneficial uses of the receiving waters are being attained, the monitoring program shall be deemed completed.

The Monitoring Program shall include monitoring of suspended solids and runoff contaminants from the Project site to ensure that the local marine resources are not being degraded. This monitoring program shall include the construction site, local tide pools, and nearshore waters offshore of the Long Point Resort prior to, during, and following the grading activities. Marine biological surveys shall be conducted to document the health of key rocky intertidal species, rocky habitat quality in the vicinity of the discharges, surfgrass distribution, and nearshore kelp bed characteristics within the immediate vicinity (less than a radius of one nautical mile) from each of the two discharges.

VISITOR USE

5.8-3a The intertidal resources of the Fisherman's Cove and east to the tip of Long Point shall be actively managed on an on-going basis by the City of Rancho Palos Verdes and the Applicant to offset potentially significant impacts to intertidal marine resources. This area shall be managed as part of Conservation Area 1-A in association with the westerly bluffs below the bluff-top edge of the RHA. The area shall be designated as a Habitat Reserve. Although recreational fishing for fin fish is permitted, the Habitat Reserve Designation shall restrict certain uses below the resort hotel including commercial fishing, the

collection of invertebrates, and the disturbances of plants, birds, and other animal life.

5.8-3b Prior to Occupancy Permit issuance, the City and the Applicant shall work with a qualified marine biologist to develop a Long-term Shoreline Resource Management Plan that identifies and details the means by which visitor use of the rocky outcrops of the Project area shall be actively managed. At a minimum the plan shall implement monitoring and enforcement of protected regulations herein: (1) signage; (2) enforcement of posted regulations; (3) on-site naturalists or other personnel to enforce regulations and to cite violators; (4) educational and docent programs; and (5) areas of restricted or no access.

5.8-3c Prior to Occupancy Permit issuance, the Applicant shall develop an educational booklet for hotel guests that provides ways to prevent ecological damage to the intertidal and subtidal habitats.

5.8-3d Prior to Occupancy Permit issuance, the Applicant shall develop an interpretive display at the hotel/resort that informs visitors of the area's natural resources and provides suggestions for minimizing damage to these resources.

5.8-3e Prior to Occupancy Permit issuance, the Applicant shall post simple, but direct and enforceable signage in multiple languages at all access points to the rocky intertidal habitats from the residential and resort areas to advise the public of the area's ecological value and to help prevent degradation of the intertidal habitat.

5.8-3f Prior to Occupancy Permit issuance, the Applicant and the City of Rancho Palos Verdes shall provide training for and enforcement of the Habitat Reserve shoreline on a daily basis during the summer and on weekends during the winter months between Labor Day and Memorial Day. Enforcement personnel shall have the authority to enforce local statutes and State of California laws regarding fishing limits and the illegal take of marine plants and animals.

5.8-3g The Project Applicant shall conduct intertidal monitoring studies to document the effects of visitor use and storm drain discharges on the Habitat Reserve intertidal and marine life. In association with surveys being conducted to assess runoff effects on marine life, the visitor use monitoring program shall include quarterly (four times/year) monitoring surveys of beach and rocky intertidal habitat use and concurrent intertidal biological resource surveys over a five-year post-construction monitoring period to determine if the management program is effective at preventing degradation of the intertidal

communities. Methodology to be used shall be consistent with other long-term intertidal monitoring programs within Southern California and shall be approved by the California Department of Fish and Game.

Annual reports shall be prepared and the management plan's objectives shall be evaluated and updated as necessary to ensure protection of the intertidal resources. If it is determined through survey results that after the first five years the overall management program is not effective in reducing the degradation of intertidal habitat, a written assessment of the management plan shall be prepared by the assigned marine biologist(s). This assessment shall prescribe alternative methods for improvement of habitat quality and health. The assessment report/revised program shall be reviewed by the City of Rancho Palos Verdes prior to implementation of alternative methods. The assessment/revised program shall be prepared and submitted for review prior to the completion of the sixth year after implementation of the original Resource Management Plan.

CUMULATIVE

5.8-4 Refer to Mitigation Measures 5.8-1, 5.8-2 and 5.8-3.

NOISE

SHORT-TERM CONSTRUCTION NOISE

The following specific mitigation measures are recommended for incorporation in the Project to minimize short-term noise impacts and insure compliance with applicable noise standards:

5.9-1 During grading/construction activities, the contractor shall employ the following measures to ensure that construction noise will not adversely affect adjacent sensitive uses. Construction activities shall be periodically monitored by the City to ensure compliance with applicable City Code, including the limitation of construction hours to 7:00 am to 7:00 pm, Monday through Saturday.

- All construction equipment, fixed or mobile, will be equipped with properly operating and maintained mufflers.
- On-going inspection and maintenance of equipment.
- Stationary equipment will be placed such that emitted noise is directed away from sensitive noise receivers.

- Stockpiling and vehicle staging areas should be located as far as practical from the occupied dwellings adjacent to the Project site.

- Every effort shall be made to create the greatest distance between noise sources and sensitive receptors during construction activities.

LONG-TERM NOISE IMPACTS

Mobile Noise Sources

5.9-2 No mitigation measures are feasible.

Stationary Noise Sources

5.9-3 Prior to Final Development Plan approval, a subsequent noise analysis shall be prepared, to the satisfaction of the Director of Planning and Building and the City Engineer, which demonstrates that site placement of stationary noise sources would not exceed noise standards indicated in the State Land Use Noise Compatibility Guidelines for adjacent residences.

CUMULATIVE IMPACTS

5.9-4 No mitigation measures beyond compliance with State Standards and City Development Codes have been identified.

PUBLIC HEALTH AND SAFETY

HAZARDOUS MATERIALS

5.10-1a Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the concrete sump located in the former service station in the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1b Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the characteristics and extent of the potential contamination (i.e, soil and groundwater) associated with the liquid contained within the vault of the former sky tower on the RHA. Results of the sampling shall indicate what level (if any) of disposal is needed and whether remediation efforts shall be required.

5.10-1c Prior to Demolition Permit issuance, site specific investigations shall be conducted to determine the contents of the interior of all structures on the RHA. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to renovation/demolition activities.

5.10-1d If during demolition any of the structures, paint is separated from the building materials (e.g., chemically or physically), the paint waste shall be evaluated independently from the building material to determine its proper management. According to the Department of Substances Control, if paint is not removed from the building material during demolition (and is not chipping or peeling), the material could be disposed of as construction debris (a non-hazardous waste). The landfill operator shall be contacted in advance to determine any specific requirements they may have regarding the disposal of lead-based paint materials.

5.10-1e Prior to the commencement of any remedial work and consistent with the National Emission Standards for Hazardous Air Pollutants (NESHAP), building owners shall conduct an asbestos survey to determine the presence of Asbestos Containing Materials (ACMs). Prior to Demolition Permit issuance, areas shall be sampled as part of an asbestos survey.

5.10-1f Any demolition of the existing building shall comply with State law, which requires a contractor, where there is asbestos-related work involving 100 square feet or more of ACMs, to be certified and that certain procedures regarding the removal of asbestos be followed.

5.10-1g Soil sampling of the agricultural portion of the RHA shall be conducted to determine the presence or absence of banned agricultural pesticides, prior to Grading Permit issuance.

5.10-1h Prior to Grading Permit issuance, a Phase II level investigation shall be conducted to determine the level of potential contamination associated with the historic use of the UPVA. The focus of the investigation shall include, but not be limited, to the following:

- Determine the actual absence or presence of the suspected underground storage tanks located near the Point Vicente Bunker. If determined present within the UPVA, soil sampling and/or testing to determine the characteristics and extent of potential contaminants shall be performed. Upon completion of soil testing and/or sampling, a Risk Assessment shall be prepared to determine the appropriate measures for remediation of the tank sites; and

- The 100-square foot area of distressed vegetation located adjacent to the abandoned concrete slab in the northern portion of the UPVA shall be examined to determine the potential for a release of hazardous materials. In addition, a subsurface investigation shall be conducted to determine if any other structures or substances are located below the concrete slab. Any stained soil shall be tested to determine the absence or presence of hazardous materials.

5.10-1i Prior to Demolition Permit issuance, the Project Applicant shall coordinate with the appropriate authorities from the United States Department of Interior, National Park Service regarding any proposed modifications to the Nike missile silos.

5.10-1j Prior to Demolition Permit issuance or modification to the Point Vicente Bunker, a site specific investigation to determine the contents of the interior shall be conducted. In the event that hazardous materials are encountered, they shall be properly tested and then properly disposed of prior to modification/demolition activities.

5.10-1k Prior to Grading Permit issuance, soil sampling of the agricultural portion of the Upper Point Vicente Area shall be conducted to determine the presence or absence of banned agricultural pesticides.

GOLF SAFETY

5.10-2a The proposed golf course design shall be modified prior to Development Plan approval, to the satisfaction of the Planning Department, pursuant to the recommendations cited in the Golf Safety Study contained in Appendix 15.11, *Golf Course Peer Review and Safety Analysis*, of this EIR (September 15, 2000) as follows:

Hole # 1. Additional support (i.e., higher mounding) shall be added along the parking area by providing vegetation on top of the mounding. The tee shall be moved back slightly to the left.

Hole # 2. The back two tee complexes shall be moved to the left and down the slope. The sand bunker shall be moved toward the green.

Hole # 3. This hole shall be made a Par 4. The green shall be located beyond the shallow draw near what is now the proposed second landing area.

The support (mounding) situated to the right of the first landing (separating the landing area from the 4th green complex) is necessary and shall be retained, however, the fairway area shall be cut by five

to ten feet through the areas that are currently at elevation of 360 feet. The highest point in the fairway shall be at 355 feet while the sides (rough areas) shall be five to ten feet higher.

The first landing area shall be lowered by 10 to 15 feet (leaving the support that separates the 3rd fairway from the 4th green).

One of the two following options shall be implemented regarding the relationship between the third and fourth holes:

- Option # 1 – The third hole becomes a par four with the green just short of where the original second landing area is. The fourth tees remain where they are; or

- Option # 2 – The third hole's second landing moves out to the right (to a distance at least 150 – ideally 175 feet – away from the property boundary). This way the hole would remain as a par five. The fourth hole would become a par three (about 185 yards from the back tee).

Hole # 4. The fifth tee location shall be moved to the south by 35 to 40 feet and a retaining wall provided similar to that around the fourth tees. The landing area on the fourth shall move by approximately 30 feet. Signage shall be provided on the fourth tee to let players on the right of the third fairway play first prior to playing shots off the fourth tee. The overall profile of the entire third and fourth fairways shall be lowered for improved vision with each shot. Also refer to the Hole #3 discussion.

Hole # 5. Two or three more bunkers shall be added down the slope to the right of the green. The back tee shall be moved to the south. One or the other of the following recommendations shall be implemented:

- The hole shall be shorted slightly by moving the green back towards the tee; or

- Dense vegetation of medium height shall be added to screen against long shots landing near the pedestrian trails.

Hole # 6. A bunker or strong shaping (grass hollows) shall be provided between the sixth green and first tee. The back tee on the first hole shall be moved to the left slightly (closer to the property boundary).

Hole # 7. Additional support (i.e., higher mounding) shall be added on the back left. The cart path shall be relocated behind the back tee and down the left-hand side.

Hole # 8. The landform to the right of the eighth tees shall be landscaped to protect players from shots off the ninth tee.

Hole # 9. Vegetation shall be added to the right hand support (higher mounding) past the landing area. The walking trails shall be screened with small to medium height vegetation near the landing.

5.10-2b The Project Applicant shall, to the satisfaction of the Planning Department, implement one or the other of the following modifications to the practice facility's design prior to Development Plan approval:

- The low area between the range and property boundary shall be excavated out. The range's elevation shall be decreased by between 10 and 15 feet and then revegetated with native materials; or

- The elevation of the driving range tee shall be lowered to approximately the 230-foot elevation.

EMERGENCY RESPONSE PLAN

5.10-3 No mitigation measures are required.

FIRE ANTS

5.10-4a Prior to delivery to the UPVA and the RHA, all nursery stock and other items likely to carry fire ants shall be inspected for their presence and identified as free of ants by the landscape and native plant nursery used for the Project.

5.10-4b The Project Applicant shall develop for the suppression of fire ants a Fire Ant Management Program. The Program shall be included as part of the Landscaping Plans for both the UPVA and RHA and shall be submitted for review and approval to the City Planning Department prior to Landscape Plan approval. The Program shall include measures that (1) identify appropriate treatments that can be administered most effectively and at the right times, (2) identify the area to be managed and establish a level of acceptable pest presence/damage/tolerance, (3) establish regular monitoring visits as part of the landscape maintenance program, and (4) treat infestation when monitoring indicates that the situation exceeds the established level of presence.

CUMULATIVE IMPACTS

5.10-5 No mitigation measures are required.

PUBLIC SERVICES AND UTILITIES

PUBLIC SERVICES

Fire Protection

5.11-1 Prior to Grading Permit issuance for the UPVA, the Project Applicant shall consult with the Los Angeles County Fire Department with respect to avoidance of Helispot Pad #53A or the provision of an alternate pad within the Project area.

Police Protection

5.11-2 The Project Applicant shall, to the satisfaction of the City Planning Department, implement the following measures:

- Minimize number of compact parking spaces;
- Maximize required signage;
- Provide Sheriff's Department a minimum of 30 days prior notice of upcoming events; and
- Provide additional traffic control measures beyond public traffic signals at the main entrance to the Resort.

Schools

5.11-3 No mitigation measures are required.

Libraries

5.11-4 No mitigation measures are required.

UTILITIES AND SERVICE SYSTEMS

Wastewater

5.11-5 No mitigation measures are required.

Water

5.11-6 No mitigation measures are required.

Solid Waste

5.11-7 The Project Applicant shall, to the satisfaction of the City Public Works Department, implement the following on an on-going basis:

- Grasscycle, use as mulch, or compost all greenwaste generated from the Golf Course;
- Recycle all bottles, aluminum cans, glass, and foodwaste. The foodwaste generated on-site may be used for composting efforts if the Project Applicant desires; and
- Annual reports shall be prepared and submitted to the City Public Works Department on the progress of the recycling program. This report shall include the amount of tonnage which has been diverted to trash, recycling, composting and grasscycling.

Electric

5.11-8 No mitigation measures are required.

Natural Gas

5.11-9 No mitigation measures are required.

Telephone

5.11-10 No mitigation measures are required.

CUMULATIVE

5.11-11 No mitigation measures are required.

TRAFFIC AND CIRCULATION

TRAFFIC GENERATION

5.12-1a Prior to Occupancy Permit issuance, Palos Verdes Drive South, adjacent to the Project site, shall be constructed at its ultimate width at a 100 foot right-of-way.

5.12-1b Prior to Occupancy Permit issuance, a 150-foot minimum left turn pocket shall be provided for vehicles traveling west on Palos Verdes

Drive South and desiring to turn left into the main access to the Project site.

5.12-1c Prior to Occupancy Permit issuance, access to the driving range shall be restricted to right turns in/out only.

5.12-1d Prior to Occupancy Permit issuance or when warranted, a traffic signal shall be installed by the Project Applicant at the Project Entrance (NS) at Palos Verdes Drive South (EW).

5.12-1e Prior to Occupancy Permit issuance, the Project Applicant shall make the following roadway improvements:

- Silver Spur Road (NS) at Hawthorne Boulevard (EW)
  - Restripe south leg with two left turn lanes, one through lane and one right turn lane and
  - Provide north leg with one left turn lane, two through lanes and one right turn lane
- Hawthorne Boulevard (NS) at Palos Verdes Drive North (EW)
  - Provide west leg with one left turn lane, one shared left/ through lane, one through lane and one right turn lane
- Western Avenue (NS) at 25th Street (EW)
  - Provide east leg with one left turn lane, two through lanes and one right turn lane

CONGESTION MANAGEMENT PLAN

5.12-2 Refer to Mitigation Measure 5.12-1.

INTERNAL CIRCULATION AND PROJECT ENTRY GEOMETRICS

5.12-3a Sight distances at the Project entrances shall be further reviewed with respect to standard Caltrans/City of Rancho Palos Verdes sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

5.12-3b Internal traffic signing/striping shall be implemented in conjunction with detailed construction plans for the Project.

PARKING CAPACITY

5.12-4 The use of public parking areas for hotel/golf uses shall be restricted unless a Conditional Use Permit or other approval from the City is obtained.

RECREATION

EXISTING RECREATIONAL ACTIVITY

5.13-1 No mitigation measures are required.

PROPOSED RECREATIONAL ACTIVITY

5.13-2 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.

PATH AND TRAILS NETWORK

5.13-3 Refer to mitigation measures specified in Sections 5.1 through 5.12 of this EIR.

5.13-4 No mitigation measures are required.

PARKS MASTER PLAN

5.13-5 No mitigation measures are required.

PALOS VERDES CONCEPTUAL TRAILS PLAN

5.13-6 No mitigation measures are required.

PALOS VERDES CONCEPTUAL BIKEWAYS PLAN

5.13-7 No mitigation measures are required.

CUMULATIVE

5.13-8 No mitigation measures are required.

9.0 INVENTORY OF SIGNIFICANCE AFTER MITIGATION

AESTHETICS/LIGHT AND GLARE

No significant impacts related to Aesthetics/Light and Glare have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.

AIR QUALITY

The following air quality impacts would remain significant and unavoidable following mitigation:

- NO_X and PM_{10} fugitive dust emissions from construction activities;
- ROG, CO, PM_{10}, NO_X emissions from Project operations;
- Cumulative development would also result in significant and unavoidable impacts to regional air quality levels of ROG, NO_X, CO and PM_{10}.

The increase in the severity of the existing air quality violations would make the proposed development inconsistent with one of the two indicators of consistency. Project implementation would result in a significant unavoidable impact with respect to consistency with the AQMP.

If the City of Rancho Palos Verdes approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.

BIOLOGICAL RESOURCES

No unavoidable significant impacts related to biological resources have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.

CULTURAL RESOURCES

No significant impacts related to Cultural Resources have been identified following implementation of mitigation measures referenced in this Section.

GEOLOGY, SOILS AND SEISMICITY

No significant impacts related to Geology and Soils have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes Development Code.

HYDROLOGY AND DRAINAGE

No significant impacts related to hydrology and drainage have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies and/or City of Rancho Palos Verdes codes.

LAND USE AND RELEVANT PLANNING

Based upon the analysis pertaining to consistency with relevant planning policies and cumulative impacts, no impacts have been identified and no mitigation measures are required.

MARINE RESOURCES

Impacts to marine biological resources are reduced to a less than significant level with implementation of mitigation measures.

NOISE

Several local roadways would experience noise levels in the future above standards in the absence of the proposed Project. Since the Project generated trips would further exacerbate a Projected exceedance of standards beyond established thresholds, implementation of the proposed Project would contribute to a significant and unavoidable impact for adjacent residential areas along the following roadway segments:

- Palos Verdes Drive West (from Palos Verdes Drive to Hawthorne Boulevard);
- Palos Verdes Drive South (from Hawthorne Boulevard to Palos Verdes Drive East);
- 25th Street (from Palos Verdes Drive East to Western Avenue); and
- Hawthorne Boulevard (from Palos Verdes Drive South to Palos Verdes Drive North).

If the City of Rancho Palos Verdes approves the Project, the City shall be required to cite their findings in accordance with Section 15091 of CEQA and prepare a Statement of Overriding Considerations in accordance with Section 15093 of CEQA.

PUBLIC HEALTH AND SAFETY

No significant impacts related to Public Health and Safety have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

PUBLIC SERVICES AND UTILITIES/SERVICE SYSTEMS

No unavoidable significant impacts related to public services and utilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Codes.

TRAFFIC AND CIRCULATION

No significant impacts related to Traffic and Circulation have been identified following implementation of mitigation measures and/or compliance with applicable standards, policies, and/or City of Rancho Palos Verdes Development Code.

RECREATION

No unavoidable significant impacts related to parks and recreational facilities have been identified following implementation of recommended mitigation measures and compliance with the City Development Code.

10.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of Rancho Palos Verdes conducted an Initial Study in July 2000, to determine significant effects of the project. In the course of this evaluation, certain impacts of the project were found to be less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in the primary analysis section of the Draft EIR. In accordance with California Environmental Quality Act Guidelines Section 15128, the following Section provides a brief description of effects found less than significant. A copy of the Initial Study is found in Appendix 15.1, *Initial Study/Notice of Preparation/Correspondence*.

10.1 AGRICULTURE RESOURCES

1. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Pursuant to the Farmland Mapping and Monitoring Program for the California Resources Agency, the subject site is not identified as an agricultural resource and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide importance.

2. Would the project conflict with existing zoning for agricultural use, or a Williamson act contract?

No Impact. Implementation of the project would not result in any conflicts with existing zoning for agricultural use or a Williamson Act Contract. The Resort Development Area is zoned Commercial Recreational and the Upper Point Vicente Area is zoned Open Space-Recreational.

10.2 AIR QUALITY

1. Would the project create objectionable odors?

Less Than Significant Impact. Commercial uses on-site may have the potential for creating odors. These emissions would be comparable to those anticipated with any type of commercial activity (e.g., food service activities). Some businesses, such as restaurants with exhaust vents, are considered “stationary point sources” and may be subject to further regulatory requirement above and beyond any requisite CEQA mitigation. While the emissions from these activities are common and not identified as being particularly hazardous, they may be subject to permitting requirements that call for the use of “best available control technology” in order to

eliminate or reduce the levels of emissions. Any potential nuisance related to odor that may occur with these activities would be mitigated under the SCAQMD's permitting requirements.

10.3 BIOLOGICAL RESOURCES

1. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. U.S. Army Corps of Engineers jurisdictional "waters of the United States" were delineated on April 28, 1998 in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (TR Y-87-1). Currently there are no wetlands present on the project site; although, one three-foot wide non-wetland jurisdictional area, an incised channel, is located in the southeastern portion of the Resort Hotel Area (RHA). Therefore, less than significant imparts are anticipated to occur in this regard.

10.4 GEOLOGY AND SOILS

1. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project proposes to install on-site sewer lines. It would not be necessary to install septic tanks or other alternative types of wastewater disposal systems. No significant impacts are anticipated in this regard.

10.5 HAZARDS AND HAZARDOUS MATERIALS

1. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The proposed project is not anticipated to result in the creation of health hazards to future residents with compliance with pertinent health and safety regulations. The proposed uses would not use, generate, or dispose of hazardous materials in large quantities.

2. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. Due to the nature of the proposed uses, hazardous emissions would not be anticipated and hazardous materials would not be handled. Further, the proposed project site is not located within a one-quarter mile of an existing or proposed school, therefore, no impacts are anticipated in this regard.

3. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The proposed project site is not included on a list of sites containing hazardous materials, and would not result in a significant hazard to the public or to the environment.

4. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed project site is not located within an airport land use plan or within two miles of a public airport and would not result in aircraft safety hazards for people within the area.

5. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed project site is not located within the vicinity of a private air strip and would not result in aircraft safety hazards for people within the area.

10.6 HYDROLOGY AND WATER QUALITY

1. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. Project construction would not involve excavation or the construction of barriers that would impede the flow of groundwater in underground aquifers. Groundwater has not been encountered in the many exploratory borings excavated within the project area over the past 40 years. Additionally, no seeps or springs were noted during previous site reconnaissances.

In general, the majority of the material beneath the site consists of non-water bearing sedimentary and volcanic bedrock materials.

2. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Implementation of the proposed project would not involve development of housing. Further, Figure 25, *Potential Flood and Inundation Hazards*, of the General Plan Safety Element, does not identify the site within a flood hazard area. Impacts associated with flood and water related hazards are considered to be less than significant.

3. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. Refer to Response 10.6(2).

4. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. Refer to Response 10.6(2).

5. Would the project result in altered direction or rate of flow of groundwater?

Less Than Significant Impact. Refer to Response 10.6(1).

10.7 MINERAL RESOURCES

1. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. The project site is not currently in mineral resource production, although illegal mining of barite crystal has occurred in the past. No significant impacts are anticipated in this regard.

2. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. According to the Natural Environment Element of the General Plan, from 1948 to 1958, the land in Rancho Palos Verdes was quarried for basalt,

diatomaceous earth, and Palos Verdes stone. The Element further notes that there are no mineral resources present within the community which would be economically feasible for extraction.

The project site has not been delineated as an important mineral resource recovery site within the City's General Plan. No significant impacts are anticipated in this regard.

10.8 NOISE

1. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels.

2. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the vicinity of a private airstrip. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels.

10.9 POPULATION AND HOUSING

1. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. Permanent Population. The proposed project does not involve the development of housing which would result in a direct growth in the City's permanent population. However, the employment created by the proposed Resort Hotel and golf course uses has the potential to result in an indirect growth in the City's population since the potential exists that "future employees" (and their families) may choose to relocate to the City.

Implementation of the proposed project has the potential to generate approximately 700 employees.[1] Estimating the number of these future employees who would choose to relocate to the City would be highly speculative since many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). While the potential exists that a certain unknown number of new employees may choose to relocate to the City, it is not anticipated that this number would be substantial since the City of Rancho Palos Verdes' housing values and rents would not be within the means of most of the future employees: the majority of the employment created would involve Service occupations which would be in the low-income category. The City's housing values and rents, as well as the anticipated incomes for the future employees, would preclude the majority of the new employees from relocating to the City.

Due to the uncertainty which exists with regard to the number of new employees which may choose to relocate to the City, a more conservative analysis of impacts associated with the City's permanent population is also provided. Although highly unlikely, if every new employee of the proposed Long Point Resort were to relocate to the City, project implementation would result in a population growth of approximately 2050 persons.[2] This would constitute an increase of approximately five percent over the City's current population of 44,933 persons.[3] However, as the City's General Plan designates the Resort Hotel Area as Commercial-Recreational, and anticipated development and resultant population increases, project implementation would not induce substantial growth in the City's permanent population as a result of the employment. A significant impact is not anticipated in this regard.

As previously noted, the number of project employees who may choose to relocate to the City is not anticipated to be substantial. Nonetheless, in order to minimize the impact of the project's employment generation on the local housing market, the project applicant would be subject to compliance with Municipal Code Chapter 17.11, *Affordable Housing*. More specifically, pursuant to Section 17.11.140, *Affordable Housing Requirements for Non-Residential Projects*, the requirements of this Section of the Code would apply to the project since the project satisfies the following criteria:

- The proposed development would create more than thirty new full-time and/or part-time jobs in the city; and/or

[1] Based on the assumption that approximately 1.2 employees would be generated per hotel room.

[2] Approximately 700 employees x 2.927 persons per household (California Department of Finance, Table 2, *City/County Population and Housing Estimates*, January 1, 2000).

[3] California Department of Finance, Table 2, *City/County Population and Housing Estimates*, January 1, 2000.

- The proposed development would create more than 10,000 square feet of space.

According to Section 17.11.140.C., *Fee Required*, prior to issuance of a Certificate of Occupancy, developers of commercial development shall pay a residential impact fee to be set by resolution of the City Council according to the number of employees generated.

Project compliance with Municipal Code Chapter 17.11, *Affordable Housing*, would reduce impacts with regard to affordable housing to a less than significant level.

Seasonal Population. As many as 550 new guestrooms and 32 villas may be developed as part of the Long Point Resort. Based on an average of 2.0 persons per guestroom, the City's seasonal population may increase by approximately 1,164 persons as a result of the proposed guestrooms. The seasonal population increase associated with the proposed guestrooms and additional meeting space would not be considered substantial, thus, a significant impact is not anticipated in this regard.

2. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. Project implementation would require removal of the two occupied housing units which exist in the RHA, near the intersection of Nantasket Drive and Beachview Drive. According to Municipal Code Section 17.11.130, *Coastal Specific Plan District Replacement Housing Requirement*, where units are located in the coastal specific plan district and occupied by low or moderate income households are to be demolished or converted, the units shall be replaced on a one for one basis. However, this Section further notes that the conversion or demolition of two or fewer residential units would be exempt from this requirement. Therefore, a significant impact is not anticipated in this regard.

It should be noted, however, that the proposed development would be subject to compliance with Municipal Code Chapter 17.11, Affordable Housing. Refer to Response 10.9(1) for a discussion regarding Municipal Code Chapter 17.11, *Affordable Housing*.

3. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. Uses which are still in operation on the Resort Hotel Area include the following:

- Catalina Room - 4,600 square feet, approximately 150-seat banquet facility;

- Property Management Offices - 800-square feet; and
- Warehouse - 3,000 square feet of storage space.

Additionally, this RHA is occasionally utilized for movie shoots. Although project implementation would require displacement of these businesses, this would occur consistent with California State Law, therefore, a significant impact is not anticipated in this regard. Further, displacement of these commercial uses would not necessitate the construction of replacement housing elsewhere. Also refer to Response 10.9(2).

10.10 TRANSPORTATION/TRAFFIC

1. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Less Than Significant Impact. The potential exists that air traffic levels may increase slightly due to an increase in visitors associated with the project. However, due the scale and nature of the proposed development, any increases in traffic levels would not be significant and would not result in substantial safety risks.

2. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Less Than Significant Impact. The proposed project site is located in the Los Angeles Metropolitan Area which has one of the most extensive and complex auto oriented networks within any highly urbanized area in the world. Currently, the Peninsula is served by very limited bus service (standard and "subscription"), taxi cabs, and the Thumb Taxi. The Southern California Rapid Transit District has one year-round line which runs on a limited schedule from the RHA and Peninsula Center area to downtown Los Angeles. As illustrated on figure 19, *Public Transit*, of the General Plan, a Line Terminus exists on Palos Verdes Drive South, immediately adjacent to the RHA. R.T.D. Line 125 travels from this Terminus, west to Hawthorne Boulevard then proceeding north along Hawthorne Boulevard. R.T.D. Line 127, a summer only route, travels from this same Terminus, due east, along Rancho Palos Verdes Drive South. According to Exhibit 3.7, *Circulation Plan*, a bus stop would be relocated immediately east of Resort Entry Drive. Impacts to alternative transportation modes such as bus facilities and bicycle access/parking requirements is anticipated to be less than significant. Furthermore, the project would implement portions of the City's Conceptual Trails Plan and Conceptual Bikeways Plan (refer to Section 5.13, *Recreation*).

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13.0 MITIGATION MONITORING PROGRAM

Section 2.0 of this DEIR identifies the mitigation measures that will be implemented to reduce the impacts associated with the Long Point Specific Plan project. The California Environment Quality Act (CEQA) was amended in 1989 to add Section 21081.6, which requires a public agency to adopt a monitoring and reporting program for assessing and ensuring compliance with any required mitigation measures applied to proposed development. As stated in Section 21081.6 of the Public Resources Code,

> *". . . the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted, or made a condition of project approval, in order to mitigate or avoid significant effects on the environment."*

Section 21081.6 provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined prior to final certification of the EIR.

The mitigation monitoring table below lists those mitigation measures that may be included as conditions of approval for the project. These measures correspond to those outlined in Section 2.0 and discussed in Section 5.0. To ensure that the mitigation measures are properly implemented, a monitoring program has been devised which identifies the timing and responsibility for monitoring each measure. The developer will have the responsibility for implementing the measures, and the various City of Rancho Palos Verdes departments will have the primary responsibility for monitoring and reporting the implementation of the mitigation measures.