

Natural Resource Consultants

June 17, 2008

[Revised August 11, 2008]

Mr. Ara Mihranian
Principal Planner
City of Rancho Palos Verdes
30940 Hawthorne Blvd.
Rancho Palos Verdes, CA 90275

SUBJECT: Biological Evaluation of the Approximately 0.68 acre Proposed Bench Improvements on the 102-acre Long Point Site, located in the City of Rancho Palos Verdes, Los Angeles County, California

Dear Mr. Mihranian:

Natural Resource Consultants (NRC) was retained by Long Point Development, LLP to conduct a biological resources evaluation of a proposed bench improvement project (the project) located in the southeastern corner of the Long Point site (currently referred to as the Terranea Resort). The project would replace existing debris, sediments, and non-native vegetation currently located on the approximately 0.68 acre bench with a sand-covered area and a vegetated drainage channel with native planting. These features would be supplemented by native habitat creation planted with coastal species at the periphery of the bench buffering the sand area from the surrounding cliffs and upper intertidal areas. All of the afore-mentioned improvements would occur within the 0.68-acre bench.

The following letter report provides a description of the existing biological resources on the bench and evaluates the potential adverse and beneficial effects of the proposed project. This project was not described in the Environmental Impact Report (EIR) for the Terranea Resort¹; however, upon review of both the project description and of the existing biological resources in the lower bench area, NRC has determined that the project would not result in any significant adverse biological effects or require any mitigation measures. The bench improvement is consistent with California Coastal Act Public Resources Code (Coastal Act) Section 30231, Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and conditions and management tools described in the Biological Resources Management Plan (BRMP) for the Terranea Resort.

Based on NRC's analysis of the proposed bench improvement project there is no substantial evidence that this action would have any significant adverse direct or indirect effect on biological resources. Further, the addition of these improvements to the approved Terranea Resort would not result in any significant cumulative biological effect. Finally, the bench improvement project as proposed would not result in the implementation of any mitigation measures not previously disclosed in the Terranea Resort EIR.

METHODOLOGY

NRC performed a literature search for references and existing biological resources documentation relevant to this site. This search included a review of the California Natural Diversity Database (CNDDDB, 2007), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants, Coastal Act, Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and yearly tide and high-water data from the National Oceanic Atmospheric Administration (NOAA).

¹ Long Point Resort Hotel Project Environmental Impact Report, SCH# 2000071076, Certified August 29, 2002.

NRC conducted general biological surveys of the proposed bench improvement on the Long Point site on April 15 and 22, 2008. Sensitive species studies for the site were completed in conjunction with ongoing monitoring associated with the BRMP. Intertidal diversity studies were completed in 2005, 2006, and 2007 as described in the BRMP.

PROJECT LOCATION AND EXISTING CONDITIONS

The Long Point site is located on the Palos Verdes Peninsula in the City of Rancho Palos Verdes (Exhibit 1). The proposed bench improvement project is located on an existing bench in the southeast corner of the Long Point site below a steep cliff face (Exhibit 2). NRC biologists, Eric Kline and David Levine, conducted a field survey of the proposed bench improvement project and surrounding areas on April 15 and 22, 2008. At that time, the bench had recently undergone a weed abatement process² and was therefore barren. The bench showed evidence of previous disturbance including exposed asphalt paving often buried beneath one to three feet of accumulated sediments. A 66-inch drainage outfall is located on the top of the bluff towards the western edge of the proposed bench improvement project. Currently water runoff from the outfall cascades down the cliff face and sheet-flows to the ocean with no defined channel (Exhibit 3). This is the source of accumulated sediments on the bench. There is no evidence that the bench has received any tidal inundation in the past several years. Prior to the weed abatement process the bench directly beneath the drainage outfall supported numerous non-native species including as castor bean (*Ricinus communis*), fountain grass (*Pennisetum setaceum*), and Bermuda grass (*Cynodon dactylon*). These species are removed annually as part of the Coastal Development Permit for the Terranea Resort, but are present on the bench for approximately 6-8 months each year prior to removal. A vegetation map delineating vegetation communities after weed abatement is shown on Exhibit 4. Photographs of the bench area from April 2005 (prior to weed abatement) and April 2008 (post-weed abatement) are included in Exhibit 5.

Based on information from NOAA and the National Ocean Service (U.S. Department of Commerce 2000), the southern edge (and lowest point) of the bench occurs at approximately twelve vertical feet above Mean Sea Level (MSL), approximately nine vertical feet above Mean High Higher Water (MHHW), and approximately seven vertical feet above the Highest Water Level (HWL). These water-level elevations are based on station datum from the nearest tide station 9410660 located in the outer portion of Los Angeles Harbor and shown on Exhibit 6 and the attached exhibit from Stantec Consulting Inc. (Stantec), the project engineers. NOAA water-level data are based on sea level and tidal records taken between 1983 and 2001 standardized and converted to mean values (e.g., Mean Lower Low Water, etc.) for high and low tidal datums. The NOAA data is reviewed annually for possible revision and must be actively considered for revision every 25 years. This water-level data was used to assess the elevation of the proposed bench improvements relative to historical average water levels.

RELATIONSHIP OF PROPOSED PROJECT TO THE NATURAL COMMUNITIES CONSERVATION PLAN

The NCCP Act of 1991 (California Fish and Game Code, Section 2800 et seq.) provides for the preparation and implementation of large-scale natural resource conservation plans. To that end, the City entered into an agreement with the California Department of Fish and Game and U.S. Fish and Wildlife Service to develop the Rancho Palos Verdes Natural Communities Conservation Planning (NCCP) Subarea Plan. The final NCCP was approved on August 31, 2004 and included the Terranea Resort (identified as the Long Point Hotel Resort in the NCCP) as a planned project. The NCCP also identified approximately 1,504 acres to be conserved in the City's proposed Reserve.

² Annual weed abatement is required as part of the Coastal Development Permit for the Terranea Resort.

The majority of the proposed project is located within the boundary of the NCCP-planned Terranea Resort. The NCCP Reserve does not encompass any portion of the proposed project, and therefore, would not be affected by the proposed project. Although the proposed project was not earmarked in the NCCP as an area to be conserved in the City's proposed Reserve, the use (open space) and proposed native plantings associated with the proposed project would be consistent with the intent of the Reserve.

POTENTIAL EFFECTS OF THE PROPOSED PROJECT

The proposed bench improvement project would include: 1) removal of the remnant asphalt, hardened sediments, and non-native vegetation, 2) placement of a permanent weed-inhibiting liner to prevent re-growth of non-native vegetation 3) addition of approximately 1,500 cubic yards of imported sand to cover the upper bench, 4) creation of a drainage channel vegetated with native herbaceous species to convey storm water runoff flowing from 66" outfall to the edge of the bench, 5) creation of a native buffer zone to be planted between the highest extent of the existing cobble beach and the area to be improved, and 6) construction of a bridge crossing over the proposed drainage channel, and placement of educational signage. The effects of these actions are evaluated in the paragraphs that follow:

- 1) No sensitive plant or wildlife species or sensitive habitats occur on the project site and none would be affected by the proposed project. In addition, because there is no suitable habitat on the project site for any sensitive plant or wildlife species, there is no potential for adverse impacts to sensitive plant or wildlife species.
- 2) Removal of existing asphalt, debris, and non-native vegetation from the bench would be preceded by placement of silt fencing and other Best Management Practices (BMP's) at the periphery of the site to limit any encroachment into surrounding areas including the upper intertidal zone. The removal of buried asphalt would eliminate an impervious layer that currently restricts percolation and promotes an accumulation of sediments. These actions would eliminate non-native invasive weeds that are not suitable habitat for native wildlife and not consistent with either the Coastal Development Permit Special Condition 2 E (2) (b) (iv) or the resource management goals set forth by the approved BRMP for the Terranea project. Removal of the existing sediments, debris, asphalt, and non-native vegetation would not result in any adverse biological effects and would be a beneficial effect of the proposed project.
- 3) In a specific delineated area approximately 8 feet above the highest mean high water line, a weed-inhibiting liner would be placed down and keyed in to minimize return of invasive weeds. Approximately 1,500 yards of imported sand covering approximately 0.4 acre would be deposited over the liner at a depth of approximately two feet. Placement of the liner and sand would preclude regrowth of invasive non-native weeds, provide a small refuge for native shorebirds, and increase the aesthetic value of the site. Placement of a weed-inhibiting liner and importing of sand on the bench would not result in any adverse biological effects and would be a beneficial effect of the proposed project.
- 4) A vegetated drainage channel following the western edge of the bench amenity would be created to accept storm run-off from the 66" outfall and control sheet flow across the bench. Current discharge from this outfall is shown in Exhibit 3. The proposed drainage channel would be planted with native herbaceous species and function in a similar manner to the bio-swale located upstream above the cliff face. Herbaceous species planted here would include saltgrass (*Distichlis spicata*), yerba mansa (*Anemopsis californica*), western ragweed (*Ambrosia psilostachya*), and alkali bulrush (*Scirpus maritimus*). These species are native to Palos Verdes peninsula and consistent with the bio-

- swale plantings on the Terranea Resort. The plant palette is consistent with the palette from the approved BRMP for the Terranea Resort, which was also reviewed and approved by the CNPS. These plants were selected by biologists of Glenn Lukos Associates (GLA) in conjunction with NRC and Burton Landscape Architecture Studio (Burton) because they are native to the area and are expected to be tolerant of the conditions on the bench that includes exposure to salt spray. A defined drainage with native vegetation would decrease sediment transfer from the bench to adjacent intertidal areas and provide habitat value for local bird species. The extent and location of native plantings associated with this drainage and proposed planting palette is provided in the attached exhibit from Burton. These measures are consistent with the Coastal Act Section 30231 encouraging maintenance and restoration of coastal waters, streams, and wetlands through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, and maintaining natural vegetation buffer areas. Providing a vegetated drainage channel would not result in any adverse biological effects and would be a beneficial effect of the proposed project.
- 5) The southern edge of the bench would be planted with low-growing and salt-tolerant native plant cover dominated by saltgrass. This vegetation would provide for sand stabilization at the southern edge of the bench and provide a buffer between the bench edge and upper intertidal area. Planting a salt-tolerant buffer at the southern edge of the project would not result in any adverse biological effects and would be a beneficial effect of the proposed project.
 - 6) Enhancement measures including a foot-bridge over the vegetated drainage channel and public education signage identifying the various native plant species would be a beneficial effect of the proposed project.
 - 7) Based on NOAA sea level data, the southern edge of the bench occurs at approximately twelve vertical feet above MSL, approximately nine vertical feet above MHHW, and approximately seven vertical feet above the HWL. These elevations are based on station datum from the nearest tide station 9410660 located in the outer portion of Los Angeles Harbor and shown on Exhibit 6 and information from Stantec. Based on the vertical separation of the bench and the intertidal area no sand is expected to be transferred from the bench to the intertidal zone except during extraordinary storm events. Accordingly, the bench amenity would not, under normal conditions, increase sediments in the intertidal zone or affect any intertidal organisms.
 - 8) During extreme storm events wave action, tidal surges, and rain fall may result in sand transfer from the bench into the rocky intertidal zone. Under storm conditions, sand transport would be isolated to this point source and local tide, wave, and currents are expected to disperse sand from the intertidal area before any localized accumulations occurs. Any short-term sand accumulation or “pocket accumulation” is not expected to cause permanent impacts to intertidal species as recovery of intertidal species after winter sand burial is usually rapid with dominant species returning to normal cover (Littler et al., 1983). Littler has found that “most rocky shores include considerable sand intermixed with biota attached to rock substrates, and fluctuations in the degree of sand coverage are common.” Natural sand movement along the Pacific coastline follows a seasonal trend of accumulation and removal from the winter to the summer (Hedgpeth 1957, Markham 1973, and Shephard 1973). Storm related sand transfer into the intertidal system would not be a significant impact on intertidal marine organisms. Marine resources will not be significantly affected by improvements to the bench area in accordance with Section 30230 of the Coastal Act.

An extreme storm event may result in local sand inundation within the intertidal area below the bench and cause a temporary change in intertidal flora and fauna composition. Any transfer of imported sand from the bench into the intertidal area would be incremental and not cumulatively significant event relative to concurrent events occurring along the coastline. These sorts of periodic inundation occur during major storms and can result in temporary loss of immobile species associated with habitats such as sea lettuce (*Ulva* sp.) beds (Littler et al., 1983). These sorts of communities would also be the first to re-colonize bare substrate potentially exposed in other areas based on their high productivity and low biomass. Stress-tolerant species that are immobile such as mossy chiton (*Mopalia mucosa*), aggregating anemone (*Anthopleura elegantissima*), and barnacle species such as (*Tetraclita rubescens*) are likely to withstand temporary sand inundation (Grime, 1977). Littler also notes that “disturbances such as sand and rock movement, when localized, may increase diversity as a result of mixed patches containing populations undergoing different stages of succession.”

- 9) Under a no-project scenario where the bench would remain in an unimproved condition, storm events may result in transfer of weedy vegetation, various other debris, and unidentified sediments from the bench to intertidal areas. The proposed improvements would minimize transfer of unidentified debris into the intertidal.
- 10) The import of sand above the MHHW would be outside of U.S. Army Corps of Engineers (ACOE) jurisdiction and would not constitute a “fill” of waters of the U.S. The project would not result in impacts to areas under the jurisdiction of the ACOE (Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act), and neither requires separate authorization from the ACOE nor requires modification to the existing Section 404 authorization for the Terranea Resort (pers. comm. Trinh Phuong to Thienan Ly dated February 20, 2008).

The proposed project would not take place within a lake or stream, and therefore would not require authorization from the California Department of Fish and Game under Section 1600 of the Fish and Game Code.

The proposed project would not take place within any areas considered to be a water of the State, and therefore would not require authorization from the Regional Water Quality Control Board under the Porter-Cologne Water Quality Control Act. In addition, because the proposed project would not result in impacts to areas under the jurisdiction of the ACOE, it would not require authorization from the Regional Water Quality Control Board under Section 401 of the Clean Water Act.

- 11) The enhancement of the bench will provide a recreation area for the public that is not currently present. Imported sand will replace non-native weedy plants and wood and metal debris that previously restricted recreational opportunities. Public recreational opportunities are encouraged under Section 30213 of the Coastal Act. Under Sections 30210 and 30211 of the Coastal Act maximum public access to this remote section of shoreline will be left intact and improved with a compacted, decomposed granite trail leading down from the bluff.
- 12) Revegetation with native plants and removal of trash and debris would enhance the scenic and visual qualities of the shoreline consistent with Section 30251 of the Coastal Act to make the bench visually compatible with the surrounding area. The plan is also consistent with the BRMP and bio-swale planting program for the Terranea Resort.

CONCLUSIONS

Based on NRC's evaluation of the anticipated effects of the proposed project, we find that the proposed bench improvement would not result in any significant adverse direct or indirect impact to the intertidal zone, intertidal species, any sensitive plant or wildlife species, or any other biological resources. Further, the addition of these improvements to the proposed Terranea plan would not result in any significant cumulative effects or result in the Terranea project, as revised, resulting in significant effects to biological resources. Finally, the bench improvement project would not result in the implementation of any mitigation measures not previously disclosed in the Terranea Resort EIR. Assuming no other significant adverse effects associated with implementation of the bench improvements have been identified, it is NRC's opinion that the City of Rancho Palos Verdes can adopt a Negative Declaration for disclosure of impacts associated with the bench improvement project. Enclosed are the City's Environmental Assessment documents to be used in preparation of a Draft Negative Declaration.

If you have any questions or comments regarding this letter, please contact me directly at (949) 497-0931.

Sincerely,

NATURAL RESOURCE CONSULTANTS



David A. Levine

w/ Attachments: Exhibits 1 through 6
Lower Tide Exhibit (Stantec Consulting, Inc.)
Lower Bench Landscape Improvements (Burton Landscape Architecture Studio)
Environmental Assessment Information

References

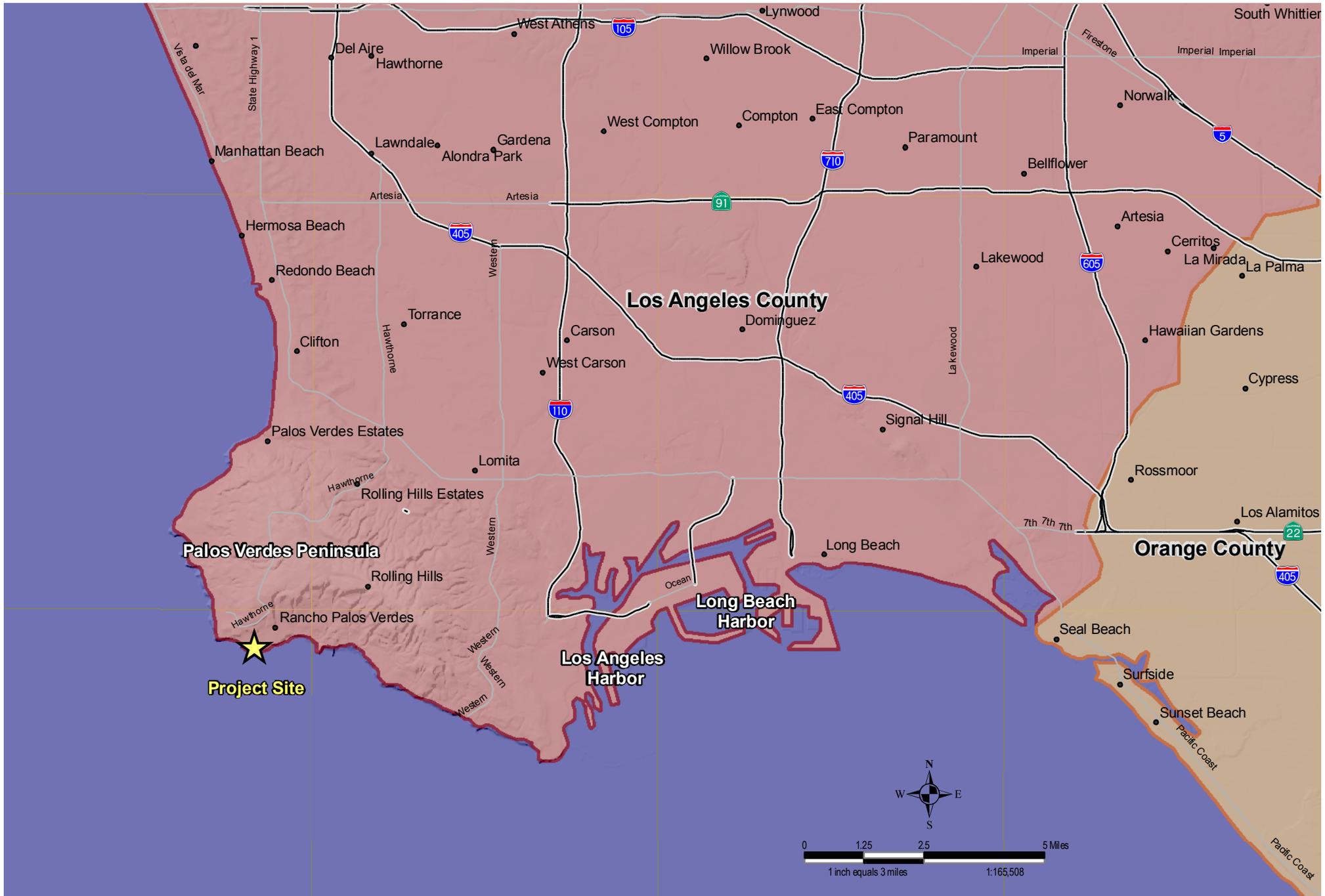
- Grime, J. P. (1977). Evidence for the existence of three primary strategies in plants and its relevance to ecological and evolutionary theory. *Am. Nat.* 111:1169-1194
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- Littler, M.M. 1980. Overview of the rocky intertidal systems of Southern California. In: Power, D. M. (ed.) *California islands: proceedings of a multidisciplinary symposium*. Santa Barbara Museum of Natural History, Santa Barbara, California, p. 265-306.
- Littler M.M., Martz D.R. and Littler D.S. 1983. Effects of recurrent sand deposition on rocky intertidal organisms: importance of substrate heterogeneity in a fluctuating environment. *Marine Ecology – Progress Series*. Vol. 11: 129-139.

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U.S. Department of Commerce 2000. Tide and Current Glossary. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, and Center for Operational Oceanographic Products and Services.



Eric F. Kline. Natural Resource Consultants. 25 July 2008. Proj_GIS\long_point\workspaces\2008\bench_improvement\regional_map.mxd

EXHIBIT 1: REGIONAL MAP
 TERRANEA RESORT HOTEL | CITY OF RANCHO PALOS VERDES, LOS ANGELES COUNTY





Eric F. Kline. Natural Resource Consultants. 25 July 2008. Proj_GIS/long_point/workspaces/2008/bench_improvement/vicinity_map

EXHIBIT 2: VICINITY MAP
TERRANEA RESORT HOTEL | CITY OF RANCHO PALOS VERDES, LOS ANGELES COUNTY





Photo of existing outfall after a rain event. The outfall is located west of where sand will be imported. Non-native vegetation surrounding the base of the outfall has since been removed during weed abatement activities.



Note: Tide information taken from tide station #9410660 located at the entrance to Los Angeles Harbor

Eric Kline, Natural Resource Consultants, 25 July 2008. Proj_GIS/long_point/workspaces/2008/beach_improvement/veg_map.mxd

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|------------------------------|-------------------------------|-----------------|
| Project Boundary - 0.68 acre | Coastal Bluff Scrub | Intertidal Zone |
| Outfall Basin and Drainage | Disturbed Coastal Bluff Scrub | Rocky Shore |
| Tide Water Levels | Non-native Bluff Vegetation | Rocky Bluff |
| Limits of Imported Sand | Ornamental Trees/Shrubs | Disturbed |
| Bridge | Non-native Grassland/Ruderal | Developed |

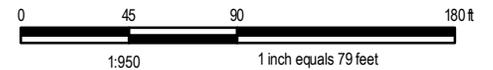


EXHIBIT 4: VEGETATION COMMUNITIES

TERRANEA RESORT HOTEL | CITY OF RANCHO PALOS VERDES, LOS ANGELES COUNTY





View of proposed bench improvement area prior to weed abatement. Photo by Marcus England on April 8, 2005.



View of entire proposed bench improvement area below the bluff and above the rock shoreline. Photo by Eric Kline on April 22, 2008.



Close up view of the bench location where sand will be placed. The area is bare after weed abatement. Photo by Eric Kline on April 22, 2008.



View of interface between proposed bench improvement and rocky shoreline. Photo by Eric Kline on April 22, 2008.



Note: Tide information taken from tide station #9410660 located at the entrance to Los Angeles Harbor

Eric Kline, Natural Resource Consultants, 22 July 2008, Proj_GIS/long_point/workspaces/2008/beach_improvement/water_levels.mxd

- Project Boundary - 0.68 acre
- Outfall Basin and Drainage
- Limits of Imported Sand
- Tide Water Levels
- Bridge

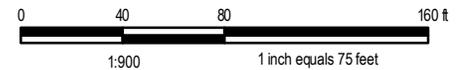


EXHIBIT 6: BENCH AREA WITH WATER LEVELS

TERRANEA RESORT HOTEL | CITY OF RANCHO PALOS VERDES, LOS ANGELES COUNTY



September 9, 2008

Mr. Ara Mhuranian, Principal Planner
City of Rancho Palos Verdes
30940 Hawthorne Boulevard
Rancho Palos Verdes, California 90275

VIA EMAIL AND MAIL
aram@rpv.com

Subject: Peer Review of the Revised Biological Evaluation of the Approximate 0.68-Acre Proposed Bench Improvements on the 102-Acre Long Point Site, located in the City of Rancho Palos Verdes, Los Angeles County, California

Dear Mr. Mhuranian:

At your request, BonTerra Consulting has conducted an additional peer review of the *Biological Evaluation of the Approximately 0.68-acre Proposed Bench Improvements on the 102-acre Long Point Site, located in the City of Rancho Palos Verdes, Los Angeles County, California* prepared by Natural Resource Consultants (Biological Evaluation - Revised on August 11, 2008) for the City of Rancho Palos Verdes. BonTerra Consulting had previously determined that, in general, the majority of the report prepared by NRC appears to be adequate as a technical study to support California Environmental Quality Act (CEQA) documentation requirements. The majority of the changes and clarifications requested in our letter dated July 10, 2008, have been incorporated. However, one potential issue remains regarding the disclosure of impacts to biological resources.

The vegetative drainage portion of the project is illustrated on the June 12, 2008, exhibit by Stantec Consulting, Inc. titled Long Beach Resort Lower Beach Tide. This exhibit clearly shows grading to construct a maintenance access road to support the drainage. If construction of this access road is in support of the vegetative drainage channel and has not been documented and permitted for the larger Long Beach Resort project, impacts from the access road need to be fully disclosed in the vegetative drainage channel/sand replenishment project reports.

If the access road is fully documented and permitted for the larger Long Beach Resort project, no additional changes to the Revised Biological Evaluation are required.

Thank you for choosing BonTerra Consulting to prepare this review for the project. Please contact me at (714) 444-9199 if you have any questions or comments.

Sincerely,
BONTERRA CONSULTING



Ann M. Johnston
Principal, Biological Services

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