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Hearing Date:	January 7-10, 2003
Commission Action:	

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STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-01-459

APPLICANT: MT No. I LLC, Jim Johnson CEO and President

AGENTS: Nancy Lucast, Lucast Consulting
Mark R. McGuire, Esq.

PROJECT LOCATION: Northwest of the intersection of Avenida Pico and N. El Camino Real, City of San Clemente (Orange County)

PROJECT DESCRIPTION: Residential and commercial development, public park, trails and open space and associated infrastructure including roads and utilities on the 201.38 acre portion of the Marblehead property within the coastal zone. Included are a property subdivision and construction of 314 single family homes on 45.94 acres, 141,506 square feet of commercial space in ten commercial buildings on 22.3 acres, 14.14 acres of public parks; 93.62 acres of public and private open space and pedestrian and bicycle trails; 12.78 acres of private streets; 11.61 acres of public streets; more specifically described in Section II.A. of this staff report. The application also seeks follow-up approval for emergency bluff stabilization grading that occurred in the early 1990s.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends **DENIAL** of the proposed development because it is not in conformity with Sections 30231, 30240, 30250 and 30251 of the Coastal Act. The proposed development would adversely impact ESHA on the project site by causing significant disruption to habitat values. For instance, the proposed project would grade and place residential development within and adjacent to ESHA habitat that is used by California gnatcatcher. The proposed project also entails large-scale grading that would dramatically transform the natural landforms on the site. For example, the proposed project would grade and fill a portion of the east branch of Marblehead Canyon in order to expand the area of development for single family residences. This landform alteration would have adverse visual impacts. The motion to carry out the staff recommendation is found on page 8.

EXECUTIVE SUMMARY

Development of the subject site was previously reviewed by the Commission under Coastal Development Permit Application 5-99-260. Prior to Commission action, this application was withdrawn. Staff also reviewed a version of this project for the September, 2002 hearing. However, in response to the Staff's recommendation for denial, the applicant postponed the hearing and revised the proposal to try to respond to the issues raised in the recommendation. As with the currently proposed project, the previously proposed versions of the project have included a property subdivision, residential and commercial development, public parks, trails and open space and associated infrastructure including roads and utilities. The following chart shows a comparison between the previous projects and the current project:

Project Element	Mar. 2001 (5-99-260)	Sept. 2002 Proposal	Jan. 2003 Proposal
Grading	3,830,000 cu. Yds.	2,470,000 cu. Yds.	2,412,300 cu. Yds.
Quantity of Residential Units	424	351	314
Acreage Occupied by Residential	110 acres	74 acres	64.5 acres
Regional Commercial	84,313[1] square feet	141,506 square feet	141,506 sq. ft.
Acreage Occupied by Commercial	22 acres	22 acres	22 acres
Open Space[2] (incl.trails)	58.3 acres	77.3 acres	87.8 acres
Parks	12 acres	14 acres	14 acres
Public Streets	8.5 acres	13 acres	11.6 acres

The major issues raised by the March 2001 proposal (CDP Application 5-99-260) related to landform alteration including filling canyons, narrowing canyons using steep loffelstein walls, and grading bluffs, wetlands fill and inadequate provision of wetland buffers, adverse impacts to wetlands hydrology, adverse impacts to ESHA including Blochman's dudleya and California gnatcatcher habitat, and deficiency of priority uses including public access and recreation opportunities provided in the development.

The project now proposed retains the same basic elements as the prior development plans; however, the footprint of the development has been modified to retract –to a certain degree- development from within the canyons and away from the bluffs. As shown in the chart above, the applicant continues to modify the project incrementally, each change bringing it progressively closer to compliance with the mandates of the Coastal Act. Most recently, the applicant eliminated 37 houses from their proposal. This change to the project eliminated a significant portion of the fill of the trident canyon and removed homes from the 'peninsula' area located between the main stem and east branch of Marblehead Canyon. The applicant also expanded their proposed habitat restoration to include these newly avoided areas. In addition, the applicant has been working with the Orange County Fire Authority to significantly reduce the fuel modification requirements of the project. These changes represent significant strides toward a proposal that is consistent with the Coastal Act. Nevertheless, the current proposal still raises significant issues. The following chart describes the most significant issues raised by the project previously, the way that the applicant has chosen to address the issue under the current proposal and a brief explanation of the significant issues that remain:

[1] The square footage reported here is smaller than the later proposals due to a correction of the location of the coastal zone boundary. The corrected coastal zone boundary line places more of the commercial buildings within the coastal zone.
[2] These figures exclude about 6 acres of open space that are interior to the residential area and include landscaped slopes between rows of houses and small pocket parks.

Significant Issue	Mar. 2001 Proposal	Jan. 2003 Proposal	Significant Remaining Issues
Landform Alteration - Bluff Grading	Bluff along El Camino Real Graded into 2:1 slope	Avoids bluff grading, development pulled back from bluff	
Landform Alteration -Canyon Grading	Drainages A, B, and trident Canyon filled; western canyon narrowed with steep loffelstein walls; Marblehead Canyon narrowed with steep loffelstein walls; E. Branch of Marblehead Canyon substantially filled with remainder narrowed by loffelstein walls	Avoids portions of Drainages A, B, and the trident canyon; use of loffelstein walls limited to foundation for Avenida Vista Hermosa Bridge; more canyon area preserved	Most significantly, a large portion of the east branch of Marblehead Canyon still proposed to be filled; less significantly, the inland tips of trident canyon are proposed to be filled; spurs off main branch of Marblehead Canyon are proposed to be filled as well as grading along rim of canyon
Impacts to Blochman's dudleya ESHA	Habitat for natural population proposed to be graded	Grading proposed to avoid remaining natural population	
Impacts to California gnatcatcher ESHA (30240(a)) and Impacts to habitat necessary to protect ESHA (30240(b))	California gnatcatcher habitat to be impacted by development including 16 acres of coastal sage scrub (CSS)[3]. Impacts to be mitigated off-site.	Impacts to gnatcatcher habitat reduced including reduction of impacts to CSS to 3.3 acres; on-site habitat protection and restoration program to preserve 10.42 acres of habitat and restore approximately 61 acres of CSS habitat in the coastal zone; 'alternative' fuel modification program implemented to minimize fuel modification impacts	Some direct impacts to gnatcatcher habitat remain; development encroaches into habitat buffers and places high intensity development between and adjacent to core gnatcatcher habitat areas (with corresponding adverse edge effects); some fuel modification would occur within areas designated as ESHA; impacts not consistent with Section 30240 of Coastal Act. Development needs to be removed from core habitat areas, and buffers to avoid adjacency impacts.

[3] Recent vegetation mapping shows that the total reported quantity of CSS on site has changed from 16 acres to 13.7 acres. It is unknown whether the change is attributable to prior mapping errors or actual changes to the physical environment.

Significant Issue	Mar. 2001 Proposal	Jan. 2003 Proposal	Significant Remaining Issues
Impacts to Raptor Habitat	Biological studies were inconclusive, proposed project anticipated to adversely impact raptor nesting and foraging area	Supplemental biological study indicates that raptors do not nest on the project site. Proposed open space and restored habitat anticipated to provide ample foraging area	Additional open space would be beneficial
Coyote	Limited open space and habitat connectivity within site and to off-site areas anticipated to adversely impact coyote use of the site with commensurate impacts to gnatcatcher	Coyote anticipated to continue to utilize the site due to increased open space and improved habitat connectivity	Additional open space and connectivity would further maintain coyote use of the site that would further ensure that smaller predators are controlled and hence predation on California gnatcatcher is maintained within natural parameters
Wetlands Fill	Approximately .09 acres of wetlands filled for uses that are inconsistent with Section 30233 of the Coastal Act	Wetlands fill avoided. Wetlands impacts that occurred under emergency CDP would be offset by creating wetland habitat on-site	
Wetlands Hydrology Impacts	Water budget model found to be unreliable; grading anticipated to change hydrology of wetland as well as cause the quality of water discharged to the wetlands to adversely change	Project increases quantity of open space and infiltration area over the amount provided in prior proposal; grading plan designed to minimize impacts to hydrology and water quality; water budget model improved to address issues raised previously; biological analysis determined that impacts will be nominal	Still some uncertainty with estimating changes to the quality (salinity) and quantity of groundwater discharged to the wetlands. However, alkali-adapted wetlands seem to be tolerant of wide range of salinities. In addition, wetlands seem to be adapted to fluctuations in groundwater supply. Provision of additional open space would further address issue.

Significant Issue	Mar. 2001 Proposal	Jan. 2003 Proposal	Significant Remaining Issues
Wetlands Buffers	Project proposed to grade and construct structures within 5 to 30 feet of wetlands. Size of buffers and development proposed within buffers found to be inadequate and unacceptable, respectively.	Project proposes 100 foot wide wetland buffers in most cases. Development in buffers primarily limited to trails and habitat restoration	Except in the area of Wetland "F", wetland buffers should be 100 feet wide or extend to the top of the canyon edge (whichever is greater) at this site. Where the top of the canyon edge is greater than 100 feet from wetlands; minor grading could be allowed in the area between the 100 foot demarcation and the top of the canyon edge provided the area remains free of significant structures and is revegetated with appropriate native plants.
Public Access and Recreation	Development proposed included significant residential component which is a relatively low priority use in the coastal zone. Uses of key bluff top areas along El Camino Real limited to residential.	Residential development retracted from bluff edge to create a public park and trail network along the bluff top, a higher priority use under the Coastal Act than residential use.	Residential development causes some fill of the upper tips of the trident canyon, which is an area suitable for habitat preservation and restoration and low intensity public access and passive recreation.
Water Quality Management	Applicant proposes state of the art water quality management system. Some modifications necessary to assure Coastal Act compliance	State of the art water quality management system still proposed.	Some modifications necessary to assure Coastal Act compliance.

As noted in the above matrix, the applicant has improved the project compared with previous proposals. However, significant issues related to impacts upon ESHA and landform alteration remain. There would be numerous ways of resolving the issues. Due to this variety, if the Commission staff were to recommend approval with conditions, it would not be possible to reliably predict the final development plan. Thus, Commission staff recommend that the Commission deny a coastal development permit for the project.

PLANNING PROCESS SINCE WITHDRAWAL OF PREVIOUS APPLICATION 5-99-260 (i.e. March, 2001 proposal)

During the March 2001 public hearing on the prior application (5-99-260), the Commission directed the applicant to work with Commission staff to design a project that would be consistent

with Coastal Act requirements. In response, a series of meetings were held where the major issues regarding development of the site and various iterations of project site plans were discussed. Through this process, the issues related to raptor use of the site, coyote access and circulation through the site, bluff stability, wetlands hydrology, and wetlands fill were substantially resolved. However, less progress was made regarding landform alteration and impacts upon ESHA. At a certain point, the applicant decided to proceed with applying for the project with the intention of further debating the remaining issues identified above through the development of information and analyses.

During the public hearing on the prior application, the Commission and Executive Director agreed to accept an abbreviated local approval process in connection with the next application. According to the process arranged between the City and the applicant, the applicant would only obtain a preliminary approval from the City prior to submitting the application to the Commission. The Commission would accept and process the application with only the preliminary local approval having been completed. The applicant would submit the project to obtain final approval from the City once an approval had been obtained from the Commission. This modified local approval process is intended to minimize and avoid inconsistencies between the coastal development permit and City-granted approvals. The City granted the applicant an 'approval in concept'.

Since submittal of the application to the Commission, the applicant has argued that the issues identified above, though accurately presented, are not significant in terms of compliance with Coastal Act requirements. With respect to impacts upon ESHA, the applicant disagrees with staff as to whether the project would have any impact upon ESHA. The applicant has submitted a map that shows the limits of their proposed grading along with their determination of the location of ESHA on the project site (Exhibit 19b). Based on the applicant's ESHA/grading limit line map, no direct encroachments into ESHA would occur[4]. It is important to note that the applicants' ESHA map does not include any terrestrial ESHA buffer. In some cases the grading limit line is immediately adjacent to the ESHA. Thus, development (e.g. grading) would occur immediately adjacent to the ESHA. Grading is generally considered incompatible with the ESHA when it occurs adjacent to or within the ESHA.

Commission staff also have prepared an ESHA map. In general, the ESHA determination is very similar to the applicant's. However, Commission staff have identified additional ESHA in Drainage B and within Spur E2 that would be directly impacted by the proposed development. Houses, roads, and other development would need to be retracted from these ESHAs in order to make the development consistent with the Coastal Act. In addition, Commission staff have identified areas adjacent to the ESHA that must be protected from development; otherwise the ESHA would be significantly degraded. These areas include 50 to 100 foot wide buffer areas as well as corridors between core gnatcatcher habitat areas. The proposed development includes grading, houses, roads, and infrastructure (e.g. detention basins), within these buffers that would need to be relocated to make the project consistent with the Coastal Act.

At the time this project was scheduled for hearing in September 2002, the issue surrounding ESHA impacts had been further confounded when the Orange County Fire Authority (OCFA) determined that a 170 foot wide fuel modification zone would be required adjacent to all combustible structures. Fuel modification requirements within the 170 foot wide zone would have included controls on the plant palette and trimming, thinning and clearing in some instances. This type of fuel modification would have been required within ESHA and ESHA

[4] Exhibit 19b indicates there would be an ESHA impact caused by grading for the 1.0 acre coastal commercial site near the corner of Avenida Pico and El Camino Real. The ESHA identified in that area consisted of coastal bluff scrub. However, updated vegetation mapping from the applicant, shown in Exhibit 15 as 'area of revision', indicates that coastal bluff scrub is not in the area previously thought to contain that habitat. In absence of the coastal bluff scrub in this area, the applicant would not designate that area as ESHA. Hence, according to the applicant's ESHA determination there would be no direct loss of ESHA.

buffers. These activities would have been inconsistent with the ESHA protection requirements of Section 30240 of the Coastal Act. Accordingly, Commission staff recommended that the project be designed to entirely avoid development within the ESHA and ESHA buffers, including complete exclusion of fuel modification of any form within any ESHA.

Since September, the applicant has worked with OCFA to develop an 'alternative' fuel modification plan for the project to minimize the impacts that fuel modification would have upon existing and proposed-to-be restored habitat. The alternative plan eliminates plant palette controls, trimming, thinning and clearing requirements from the core habitat areas on the site. Some fuel modification is still required in the form of irrigated native grass zones adjacent to the developed areas as well as some more traditional fuel modification on certain slopes within the development. However, core habitat is avoided in several areas.

Nevertheless, the proposed development footprint does encroach into ESHA and ESHA buffers as those areas have been identified by Commission staff. As a result, some of the proposed fuel modification zones are within ESHA and ESHA buffers. In order for the project to be approvable, the development would need to be redesigned to remove development from within the ESHA and design the fuel modification zones to be consistent with ESHA and ESHA buffers.

The applicant has asserted that the landform alteration associated with the project has been minimized through the changes which were incorporated into the new site plan. Commission staff have agreed with the applicant that certain landforms are minor features of the landscape, such as the shallow upper end of the western canyon and the most shallow parts of the eastern branch of Marblehead Canyon, and that their alteration is not significant and does not require absolute protection in order to make the project consistent with the dictates of Section 30251 of the Coastal Act. However, certain other areas, such as the deeper portions of the east branch of Marblehead Canyon and certain spurs off the main branch do warrant greater protection. As of the date of this staff report, the applicant continues to disagree with staff on this issue. Commission staff believe there are alternatives to the proposed project that would minimize landform alteration and achieve Coastal Act objectives.

Finally, the applicant has cited a figure from time to time describing '112 acres' of developable land on the project site. The March 2001 staff recommendation uses this '112 acre' figure to describe the relatively flat areas on the project site where development could be concentrated. This figure was a rough estimate of the quantity of flat area on the site versus the quantity of canyons and slopes that was made using inexact tools available to staff at the time. This figure may overestimate or underestimate the actual quantity of acreage that may be described as 'flat'. Furthermore, the term 'developable' refers not only to residential and commercial development, and roads, but parks, trails, habitat restoration, and other less intense development. The figure does not, nor was it intended to, define the limits of development on the project site. Many factors must be considered in defining a development footprint including topography, geologic conditions, biology, etc.

FEDERAL CONSISTENCY:

The proposed project site includes property located inland of the coastal zone boundary. The proposed development on that portion of the property would require a permit from the Corps of Engineers pursuant to Section 404 of the Clean Water Act. Section 307(c)(3)(A) of the federal Coastal Zone Management Act, 16 U.S.C. § 1456(c)(3)(A), provides that:

> *...any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone affecting any land or water use or natural resource*

of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all the necessary information and data. . . . . At the earliest practicable time, the state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification. . . . No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed. . .

A Section 404 permit is listed in the California Coastal Management Program as a permit for activities that are likely to affect coastal zone uses and resources, and thus requires a consistency certification. In this case, development inland of the coastal zone and its associated facilities could potentially affect water supply to wetlands within the coastal zone, species migration to the coastal zone, and visual resources of the coastal zone. Therefore, that development may require Commission concurrence with a consistency certification before the Corps can issue its permit for any part of the development.

OTHER AGENCY APPROVALS RECEIVED: See Appendix A

SUBSTANTIVE FILE DOCUMENTS: See Appendix A

STAFF RECOMMENDATION OF DENIAL:

Staff recommends that the Commission DENY a coastal development permit for the proposed development by voting NO on the following motion and adopting the following resolution.

MOTION

"I move that the Commission approve Coastal Development Permit 5-01-459 for the development proposed by the applicant."

Staff recommends a **NO** vote. This will result in denial of a coastal development permit and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION

I. DENIAL

The Commission hereby denies a coastal development permit for the proposed development on the grounds that the development will not conform with the policies of Chapter 3 of the Coastal Act and will prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit would not comply with the California Environmental Quality Act because there are feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

II. FINDINGS AND DECLARATIONS:

The Commission hereby finds and declares:

A. SITE AND PROJECT DESCRIPTION

The Marblehead site is a 247.88 acre property (201.38 acres in the coastal zone) located between El Camino Real (a.k.a. Pacific Coast Highway) to the southwest, Avenida Pico to the southeast, the Interstate 5 freeway to the northeast, and the Colony Cove residential subdivision to the northwest (Exhibit 1). The site is roughly square and consists of an upland bluff top mesa which is incised by one large canyon (Marblehead Canyon) and several smaller canyons and drainages (Exhibit 2). The southwestern boundary of the project site (along El Camino Real) consists of 70 to 100 foot high coastal bluffs which are intersected by the mouths of the on-site canyons and drainages. The bluff is separated from the beach by El Camino Real, train tracks, and a private gated mobile home park (Capistrano Shores); therefore, the bluffs do not provide direct access to the beach, nor is the previously graded coastal bluff presently subject to marine processes. The closest beach access is at North Beach, which is across the street and south of the bluffs. North Beach is a popular beach area that contains public beach parking and a Metrolink train station. The project site is the last large, vacant, privately owned area of land in the coastal zone in the City of San Clemente, and among the largest vacant privately owned lands in coastal Orange County[5].

The applicant is proposing a comprehensive residential and commercial development, public park, trails and open space and associated infrastructure including roads and utilities on the 247.88 acre Marblehead site in the City of San Clemente, Orange County (Exhibits 4-10). While the project is an integrated development, about 201.38 acres are located within the coastal zone, therefore, only the portion of the development in the coastal zone requires a coastal development permit. The portion of the project outside the coastal zone may require Federal consistency review (see previous note). Included in the development are a property subdivision and construction of 314 single family homes on 45.94 acres; 141,506 square feet of commercial space in ten commercial buildings on 22.3 acres; 14.14 acres of public parks; 93.62 acres of public and private open space and pedestrian and bicycle trails; 12.78 acres of private streets; and 11.61 acres of public streets (see table below).

Following is a table identifying the proposed land uses followed by a detailed description of the proposed project:

[5] Bolsa Chica in Huntington Beach and Banning Ranch in the Newport Beach area are larger at approximately 308 and 412 acres, respectively.

Land Use	Non-Open Space (acres)	Open Space (acres)	Total (acres)	%
Single Family Lots (No. 1-314) and Private Streets (Lot No. BBBB [partial] – DDDD, FFFF – SSSS)	58.72			
Interior Slopes & Common Areas (Lots M, N, S, V, Y, Z, AA – HH, JJ, PP-RR)		5.83		
Total Residential Area			**64.55**	**32%**
Regional Commercial Area	22.3			
Total Regional Commercial			**22.3**	**11.1%**
Coastal Commercial – up to 60,000 square feet allowed according to the City's Specific Plan for the area (no actual buildings proposed) (Lot No. 352)	1.0			
Total Coastal Commercial			**1.0**	**0.49%**
Ocean View Park @ Bluffs (Lot No. D – F, J, O, P, Q, R)(including road & parking lots)		11.52		
Public Sports Park (Lot No. KK, LL, MM)(part in cz incl. road & parking lot)		2.62		
Public Roads (including Avenida Pico widening, Avenida Vista Hermosa, and Lot No. AAAA, BBBB (partial), EEEE)	11.61			
Total Public Area			**25.75**	**12.8%**
Dudleya Reserve and Buffer [6] (Lot No. H)		2.10		
Wetland along El Camino Real next to Dudleya reserve (Lot No. I)		0.04		
Central Canyon (Marblehead Canyon) - Within Residential Area (Lot No. L, C, LLL, KKK) - Within Commercial Area (Lot MMM - OOO)		37.82 4.57		
El Camino Real Bluff Face/Bluff Top/Trident/Western Canyon		28.09		
Detention Basins (Lot No. K, T, TT)		6.89		
Perimeter Open Space - Manufactured Slopes next to roads & other development (Lot No. A, B, U, W, X-1, OO, II, TTT, SSS)		8.28		
Total Open Space (includes trails)			**87.79**	**43.6%**
Total All	**93.63**	**107.76**	**201.38**	

1. Subdivision - Tentative Tract 8817

The applicant has indicated that the property is currently subdivided into 10 existing lots (Exhibit 4, pages 3-4). Information submitted by the applicant indicates that a lot line adjustment related to these lots was processed at the local government level in 1998, purporting to reconfigure the ten lots and reduce the total number of lots to eight. However, subdivisions, lot line adjustments, etc. within the coastal zone are considered development, which requires a coastal development permit to be valid in the coastal zone. Commission staff have not identified any coastal development permits for subdivision(s), lot line adjustments, etc. for the subject site. Therefore, the 1998 lot line adjustment is not valid, and the Commission treats the site as comprising ten legal parcels.

The applicant is proposing to subdivide the 247.88 acre site (201.38 acres in the coastal zone) as follows (Exhibit 4, pages 1-2):

- 314 residential lots (Lots 1 through 314) ranging in size from 3,364 to 20,519 square feet and totaling 45.94 acres (entirely within the Coastal Zone).

[6] Dudleya reserve and buffer already deed restricted for habitat restoration purposes pursuant to Coastal Development Permit 5-97-136

- 28 commercial lots (Lots 352 through 379 ranging in size from 0.54 to 4.23 acres and totaling 52.54 acres) of which 15 lots are totally or partially within the coastal zone, and would range from 0.54 to 3.79 acres in size, and total 22.3 acres in the coastal zone.

- 13.45 acres of public street right-of-way (11.61 acres within the Coastal Zone) excluding the right of way for the Avenida Vista Hermosa bridge (0.90 ac).

- 12.78 acres for privately maintained street right-of-way which would be open to the public (all or part of Lots BBBB through SSSS).

- 55 open space lots (Lots A through TTT, with all but Lots NN, PPP, QQQ, RRR, and TTT in the Coastal Zone) ranging in size from 0.01 acre to 36.4 acres and totaling 123.17 acres, of which 107.76 acres are within the Coastal Zone, for public park, habitat protection, public access and common area.

- Open space lot (Lot X) of 0.24 acre to accommodate the existing driveway access easement to the adjoining church property.

As noted above, only the portion of the development within the coastal zone requires a coastal development permit. Accordingly, only the portion of the subdivision on the 201.38 acres in the coastal zone requires a coastal development permit.

2. Grading and Site Preparation

The applicant is proposing to grade approximately two-thirds of the site. The remainder that would not be graded includes some of the canyon/wetlands areas; about 600 linear feet of bluff which have not previously been graded along El Camino Real; and approximately 1,900 linear feet of bluff that were graded previously under Emergency Coastal Development Permit 5-90-274-G (Exhibits 9-13). The applicant is requesting permanent authorization of the emergency grading under this permit application.

Emergency Coastal Development Permit 5-90-274-G authorized 310,000 cubic yards of grading in order to stabilize approximately 1,900 linear feet of the approximately 2,400 linear feet of 70 to 100 foot high bluffs which are on the Marblehead site and which face El Camino Real. The grading resulted in laying the bluff face back at a 1.5:1 to 2:1 slope. According to the Marblehead Coastal Bluffs Emergency Grading Program Focused EIR dated April 15, 1991, the actual emergency grading undertaken was 348,400 cubic yards of cut. This 348,000 cubic yards of cut was stockpiled in two locations (Exhibit 3): 1) between the western canyon and middle central canyon (a.k.a. Marblehead Canyon) on the Marblehead site; and 2) within the Marblehead Canyon on the site of the sewage treatment plant which was demolished in the early 1980's (see below for details). The 1991 EIR also states that a 30,000 cubic yard stabilization key involved the cutting and stockpiling of 30,000 cubic yards of material. According to a report by Leighton and Associates dated June 15, 2000, the stabilization key (essentially a ring of compacted soil) was constructed around the soil stockpiles to stabilize them since they were not placed as compacted engineered fill.

In addition to the Phase I grading which was already undertaken, the applicant is proposing, within the coastal zone, 1,185,700 cubic yards of cut and 1,226,600 cubic yards of fill (40,900 cubic yards imported from the portion of the site located outside the coastal zone). The footprint of the graded area would be 132.7 acres (68.7 acres not graded) including the earthwork for slope stabilization performed under Emergency Coastal Development Permit 5-90-122-G and 5-90-274-G. Outside the coastal zone, there would be 456,000 cubic yards of cut and 415,100

cubic yards of fill within a grading footprint of 42.2 acres (4.3 acres un-graded) (see Exhibit 9 for breakdown of grading quantities for individual areas on the project site).

3. Residential Development

The applicant is proposing to construct 314 single family residences on new lots comprised of 45.94 acres of land within the seawardmost portion of the property within the coastal zone (Exhibits 4-6). On Lots 1 through 183 (with lot sizes averaging 7,865 square feet in size), the applicant is proposing construction of 183 detached, two-story single-family homes plus attached garages. There are nine basic floor plans which range in square footage from 3,190 to 4,625 square feet (Exhibit 6). The structures have a roof line height ranging from 24 feet to 29 feet with an additional maximum 5.5 foot projection for the chimney. Each design has an attached garage with capacity for at least two vehicles. Each residential lot would also have landscape and hardscape improvements.

On Lots 184 through 314 (lot sizes averaging 4,288 square feet), the applicant is proposing construction of 131 detached, two-story single-family homes ranging in size from 1,612 to 2,320 square feet, plus two-car garages, in clusters of two to five units. Each residential lot would also have landscape and hardscape improvements. There are three basic floor plans with variations upon the base design. These structures would have a maximum roof line height of 24 feet plus an additional three feet for the chimney.

The proposed residential development includes all associated infrastructure including roads, utilities, property boundary walls and fences, and 'community theme walls' (i.e. community boundary walls) and miscellaneous retaining walls. The applicant is proposing construction of privately-maintained, open to the public, two-lane internal circulation roads in 36-to-60-foot wide right-of-ways, including on-street parking, sidewalks and streetscape. The applicant indicates that 471 on-street parking spaces would be provided. No gates, guardhouses or other controls or monitoring (e.g. kiosks) of public entry to the private streets is proposed.

4. Commercial Development

a. Marblehead Commercial Center:

The proposed project would include a total 21 commercial buildings on 52.54 acres inside and outside the coastal zone, containing a total of 675,243 square feet of floor area, and associated parking, on Lots 353 through 379. Six buildings on 22.3 acres -including one retail and five restaurants- are entirely within the coastal zone, while four buildings -three retail and one restaurant- are partially within the coastal zone. The total floor area within the coastal zone is 141,506 square feet of which 58,416 is restaurant and 83,090 square feet is retail (Exhibits 7-8). Building heights would range from 35 to 59 feet tall. Following are the building sizes and proposed general uses of the development within the coastal zone:

Building No.	Size (ft^2)	Use
1	43,442	Retail
2	10,176	Retail
3	32,120	Restaurant/Meeting Rm./ Building Services
4	23,736	Restaurant/Bldg. Services
5	6,450	Restaurant
6	6,750	Retail
7	6,000	Restaurant
8	3,280	Restaurant

Building No.	Size (ft^2)	Use
9	8,370	Retail
10	1,182	Restaurant
Total	**141,506**	

The applicant's submittal states that the general commercial uses intended for this center would include a video store, convenience store, optometry, real estate sales, optical/sun glass shop, one-hour photo, home furnishings store, art gallery, chiropractor, surf shop, interior design studio, shoe store, general gift store, card shop, nail salon, barber, beauty supply, tobacco shop, bicycle shop, picture frame store, copy store, hardware store, bookstore, electronics/appliance store and offices for building services. According to the applicant, visitor serving uses include restaurants and public viewing plaza areas located within the commercial center (both inside and outside the coastal zone). The proposed uses within the coastal zone are:

Use	Square Footage
Video Store	2,500
Convenience Food Store	2,723
Optometry	1,200
Real Estate Sales	1,000
1 Hour Photo	1,000
Home Furnishings Store	4,000
Art Gallery	2,000
Chiropractor	1,200
Surf Shop	1,300
Interior Design Studio	2,000
Shoe Store	3,000
General Gift Store	3,000
Card Shop	2,000
Nail Salon	900
Barber	1,000
Beauty Supply	1,000
Tobacco Shop	900
Bicycle Shop	1,200
Picture Frame Store	2,000
Copy Store	1,200
Hardware Store	4000
Building Services	14,352
Bookstore	23,000
Electronics/Appliance	6,615
Restaurant Uses	58,416
Total	**141,506**

Associated infrastructure to serve the commercial development would be constructed including internal circulation roads, parking, walkways and decorative hardscape, landscaping and utilities.

There are four proposed entrances to the commercial development located within the coastal zone (a fifth entrance is located outside the coastal zone) which are accessed off proposed Avenida Vista Hermosa.

A total of 2,724 parking spaces would be provided within the 52.54 acre commercial area as follows: 557 spaces in a two-level parking structure of which 479 are completely or partially in the coastal zone, and 2,167 surface parking spaces of which 1,253 are completely or partially within the coastal zone. The commercial center would also include a regional transit service area including bus queuing area and bicycle storage facilities.

b. Other Commercial

In addition to the proposed commercial development, the applicant is proposing to designate 1.0 acre of land for visitor serving commercial use near the corner of Avenida Pico and El Camino Real. More specifically, the applicant is proposing to designate Lot 352 for future visitor-serving commercial development, not to exceed 60,000 square feet. This commercial area would be adjacent to a proposed Dudleya Native Plant Reserve (Lot H) and a portion of the public coastal park (Lot F). This site would be graded only and would be reserved for visitor serving commercial uses. The mechanism for reserving the land is unspecified (i.e. deed restriction, dedication to public/private entity, etc.).

In addition, the applicant is proposing the contribution of money to the City of San Clemente for the enhancement of the downtown business district. According to the applicant, a significant portion of the business district where the money would be spent is in the coastal zone.

5. Public Roads

In addition to the private road system noted above, the applicant is proposing the construction of one main arterial public roadway, Avenida Vista Hermosa. The proposed public road would extend from existing Avenida Pico to a new freeway interchange at Interstate 5 (a portion of the road and the interchange are outside the coastal zone). The road would provide access to the commercial and residential development, the sports park and public trails.

Proposed Avenida Vista Hermosa would be a four-lane, approximately 100 foot wide roadway (100-110 foot wide right of way) with a center median. The road would have a minimum 14 foot wide landscaped center median, 35 foot wide two-lane roadways in each direction (total 70 foot wide). In addition, on the 'north' side of the road adjacent the commercial development, there would be a minimum five foot wide landscape parkway and minimum five foot wide sidewalk and a bicycle trail. Along the 'south' side of the road adjacent to the residential development, there would be a minimum five foot wide landscape parkway and eight foot wide meandering pathway plus bicycle trail.

In order to construct Avenida Vista Hermosa, one concrete box girder bridge would be constructed over Marblehead Canyon. This bridge would be approximately 400 feet long[7] (between abutments) and 100 feet wide with 61 to 70 feet of clearance between the bottom of the bridge span and the wetlands below. The railings are proposed to be "Type 26" style. The bridge would be founded upon pilings and compacted fill retained by loffelstein retaining walls. There would be a total of six (6) pilings measuring seven (7) feet in diameter all of which are to be located a minimum of 25 feet from the edge of the wetlands located in the canyon bottom. Two loffelstein walls (one on each side of the canyon) would be constructed under the bridge and flanking areas adjacent to the bridge. The wall on the west side of the canyon would measure approximately 160 feet long. The wall on the east side of the canyon would measure approximately 280 feet long. The proposed loffelstein walls would have a v-ditch drainage channel along the top of the wall which would be connected by subsurface pipes to discharge

[7] Glenn Lukos study dated December 4, 2001 states the proposed bridge is 330 feet long. This measurement is the distance between the toe of the loffelstein retaining walls rather than the bridge abutments.

locations at the base of the wall. Drainage would discharge from the pipes and sheet flow to the wetlands which are located 100 feet from the toe of the proposed loffelstein walls.

The applicant is also proposing to widen 1,800 linear feet of El Camino Real in front of the project site. The widening would increase the roadway from 45 to 50 feet wide. In addition, a seven foot wide bike lane and five foot wide sidewalk would be added to this portion. Overall, El Camino Real would be widened by 17 feet.

Avenida Pico would also be widened by 23 feet as a result of the project. The widening would affect 2,100 linear feet of Avenida Pico and would consist of increasing the width of the southbound lane from 20 feet to 28 feet (to accommodate two lanes), plus a seven foot wide bike lane and an eight foot wide sidewalk.

The applicant is also proposing construction of several public, two-lane roads within the residential area consisting of three proposed 44-to-60-foot wide rights-of-way (Streets AAAA, EEEE, and a portion of Street BBBB). These roads would include on-street parking, sidewalks and streetscape.

The applicant is also proposing the contribution of money to the City of San Clemente for off-site circulation improvements including construction of the Avenida Vista Hermosa freeway interchange and improvements to the Avenida Pico freeway interchange. The applicant is proposing the construction of roads and other infrastructure to serve the proposed development.

6. Other Infrastructure

Other infrastructure includes utilities to serve the proposed development such as water lines, reclaimed water lines, gas, electric, sewer, and storm drains with storm water management system.

The proposed storm water management system is described in the Marblehead Coastal Water Quality Plan dated November 28, 2001 (and subsequently amended-see substantive file documents) prepared by RBF Consulting (herein referred to as the Water Quality Plan). The proposed storm water management system includes storm drain catch basins with catch basin inserts, storm water retention basins, underground storm water storage tanks and a valve and telemetry system to control the diversion of dry weather nuisance flows and first flush storm water to the sewage treatment plant for processing and discharge through the South East Regional Reclamation Authority (SERRA) ocean outfall. There are three proposed storm water detention basins, two located on the slopes of Marblehead Canyon and the third adjacent to the western canyon. These detention basins store storm water from the residential development prior to either diversion to the sewage treatment plant for processing or discharge of the storm water through various existing culverts which pass under El Camino Real and discharge at the beach. The detention basins would have sediment forebays and biofilters. In addition, there are three proposed underground water storage tank systems located underground in the proposed commercial development. The storage tanks consist of several interconnected 10 foot diameter cylinders. These storage tanks capture the first flush and dry weather nuisance flows from the proposed commercial development as well as run off from some developed areas located on the inland side of Interstate 5 which discharge onto the subject site. According to the Water Quality Plan, the applicant is also proposing installation of at least five (5) to six (6) continuous deflection separation (CDS) units.

7. Open Space, Park, Trails, and Bikeways

The applicant is proposing open space areas, a bluff park, trails and bikeways as part of the proposed development (Exhibits 5 and 25). According to the applicant, a total of 107.76 acres of public parks and privately maintained, publicly accessible, on-site open space are proposed within the coastal zone. This figure cited by the applicant includes manufactured slopes within the residential development (5.83 acres), vegetated setbacks and manufactured slopes surrounding the perimeter of the development (8.28 acres), public park areas (14.14 acres), and privately maintained open space areas (87.79 acres) including a Blochman's dudleya habitat reserve and buffer, the central canyon (Marblehead Canyon), westerly canyon, trident canyon, water quality detention basins, and the El Camino Real bluff face (see table above for land use break down).

With respect to public parkland, the applicant is proposing dedication of 20.24 acres of public parkland and construction of park improvements, both inside (14.14 acres) and outside (6.1 acres) the coastal zone, consisting of the following:

- Dedication of 11.52 acres of ocean view public park. The park will straddle the mouth of Marblehead Canyon and extend along the coastal bluffs and will include a trail connection and footbridge across the canyon, and would be configured as follows:
  - An 8.64 acre area for passive recreational use (Lots J, O, P, Q, R), which includes turf (1.79 acres), road access and 20-space public parking lot (0.85 acre) and restored and enhanced native vegetation, public trails and interpretive facilities (6 acres).
  - A 2.88-acre active recreation area public park (Lots D, E and F) containing turf, tot lot, half-court basketball and restroom facility, park furniture (2.02 acres); native vegetation (0.71 acres); and 14-space parking lot and road access (0.15 acres).
- Dedication of 8.72 acres of land for an 'active park' located inside (Lots KK – MM) and outside (Lot NN) the coastal zone. The portion of the park in the coastal zone would be 2.62 acres consisting of roadway access, parking and turf areas. In total, the active park would have turf, sports fields, access road with 40 on-street parking spaces plus a 20-space public parking area which will serve a dual function as a school bus drop-off area for the adjacent Shorecliffs Middle School.

As described in a letter dated February 2, 2002, from the City of San Clemente, the applicant and the City would develop the proposed park areas and amenities in a shared manner. The letter dated February 2nd states that the applicant would dedicate the public park land to the City in fee title and would initially contribute $2 million to the City to fund construction of the parks. Final park master plans are to be prepared for approval by the City. If costs for construction of the parks in accordance with the final park master plans exceed the initial $2 million contribution, the applicant would fund the balance for completion of the parks. The City would be responsible for building the parks.

Also, the applicant is proposing 4.1 miles of public trails. The trail network would extend through the public parks and the other publicly and privately maintained open space areas. The multi-purpose recreational trail system would include an interpretive program to introduce public trail users to the site's natural history, scenic resources, and restored and created habitat. The applicant would fund and construct all of the trails within the project area, including those within

the property to be dedicated to the public and within the privately maintained, publicly accessible open space areas.

Finally, the applicant is proposing to contribute $3,456.22 per dwelling unit ($1,085,293) to the City for public improvements in the North Beach recreation and visitor-serving area.

8. Habitat Impacts and Mitigation

The applicant is proposing to impact certain vegetation communities which are present on the project site as a result of grading and construction of the development. The "Biological Resources" and "Wetlands" sections of these findings detail the impacts to the various plant communities. In summary, the applicant is proposing to impact 3.28 acres of the 13.7 acres of coastal sage scrub in the coastal zone, some of which is occupied by California gnatcatcher.

In addition to this impact that would occur under the development now proposed, the applicant is proposing to make permanent the impacts to habitat that occurred under Emergency Coastal Development Permit 5-90-274-G. These impacts include destruction of 3 acres of coastal bluff scrub, 2.5 acres of needlegrass grassland, 0.1 acres of wetlands, and 3.5 acres of Blochman's dudleya (estimated 6,500 to 10,700 individuals).

In order to mitigate for the proposed impacts, the applicant has developed a habitat mitigation and management plan (Marblehead Coastal Project Habitat Management Plan dated November 28, 2001 and subsequently amended-see substantive file documents(herein 'Habitat Management Plan' or 'HMP'). The habitat management plan proposes to preserve in place a total of 10.42 acres of various types of scrub vegetation and to restore 60.87 acres of coastal sage scrub on the un-graded and proposed-to-be-graded slopes of Marblehead Canyon and the western canyon; the un-graded portion of the trident canyon; within the proposed park areas, upon proposed-to-be-graded slopes between the proposed commercial development and Avenida Pico, and upon the un-graded and already graded blufftop/bluff face along El Camino Real.

An additional 1.63 acres of CSS restoration would be undertaken within proposed fuel monitoring and management zones that would be actively managed for fire fuel management. An additional 0.98 acres of CSS restoration would be undertaken on proposed utility easements on the site, plus .04 acres off-site. The applicant is not requesting 'credit' for these restored areas because they may occasionally be subject to disturbance for fuel modification and maintenance of utility lines. An additional 1.64 acres of coastal sage scrub restoration would be undertaken within the City-owned right-of-way along El Camino Real at the toe of the bluff.

There are approximately 0.14 acres of Blochman's dudleya located within the 10.42 acres of coastal sage scrub that is to be preserved on site. No new impacts to Blochman's dudleya are being proposed. However, as noted above, the emergency grading that occurred under Emergency Coastal Development Permit 5-90-274-G destroyed approximately 3.5 acres of habitat (estimated 6,500 to 10,700 individuals). As mitigation, Coastal Development Permit 5-97-136 implemented a translocation program that established a 2.1 acre reserve for the dudleya on-site near the corner of Avenida Pico and El Camino Real. The applicant would continue to carry out the mitigation in accordance with the terms and conditions of CDP 5-97-136. The proposed Habitat Management Plan would include the site as part of the area subject to the long term management provisions of the plan. Some of the coastal sage scrub restoration described above would occur within the 2.1 acre reserve where it would be compatible with the Blochman's dudleya restoration effort.

Approximately 0.62 acres of native needlegrass is located within the western canyon and the trident canyon. This habitat would be preserved in place. In addition, the applicant is proposing to plant approximately 3.16 acres of native needlegrass in 30 foot wide swaths to create an irrigated 'fuel modification' buffer between the proposed residential development and the restored habitat in the canyon. Fuel modification requirements of the development are described in more detail below. These native needlegrass areas would be primarily planted along the graded rim of Marblehead Canyon and between the residential development and detention basin #3. An additional 1.33 acres of native grassland would be planted between the existing residential development at Colony Cove and the proposed residential development in the westerly portion of the property.

The applicant is proposing to avoid all wetland fill impacts within the coastal zone. Therefore, there would be no fill impacts to the 5.10 acres of wetlands located in the canyons and other drainages on the applicant's property within the coastal zone nor any impact upon the 0.03 acres of wetland located in the City's right of way along El Camino Real adjacent to the Blochman's dudleya reserve. However, a temporary construction crossing (17 foot wide by 89 foot long bridge) that would be turned into a pedestrian footbridge would cause 0.02 acres of shading impacts upon wetland habitat. The applicant would mitigate the impacts to 0.02 acres (871 square feet) of wetlands with the creation of 0.09 acres (3,920 square feet) of alkali marsh on-site within Marblehead Canyon (0.06 acres) and the westerly canyon (0.03 acres). In addition, the applicant is proposing to create 1.76 acres of wetlands within the proposed detention basins and 2.84 acres of mixed riparian/scrub on the slopes of the detention basins (Exhibit 18). This additional wetland creation would be used to mitigate impacts to 0.55 acres of wetlands located outside the coastal zone at the head of Marblehead Canyon which is being required by the other resources agencies (see Exhibits 20-21).

The proposed project would also grade, fill or otherwise eliminate 0.68 acres of unvegetated ephemeral drainage channels on the project site. The applicant proposes to off-set these impacts by creating 1.76 acres of wetlands within the proposed storm water detention basins. According to the wetlands delineation, which has been approved by the California Department of Fish and Game, these ephemeral drainages are not considered wetlands under the Coastal Act.

In summary, the applicant is proposing to destroy 3.28 acres of habitat, preserve 16.18 acres of habitat and restore 66.83 acres of habitat in the coastal zone. An additional 5.74 acres of habitat would be restored that would be subject to regular disturbance for fuel modification and utility maintenance. In addition, some off-site areas would be preserved and restored including preserving 0.03 acres of wetlands and creating 1.64 acres of CSS within various public rights of way. Therefore, in total, there would be 90.46 acres of wetland and upland habitat within the project site in the coastal zone upon completion of the proposed project.

An additional 9.22 acres of wetland and upland habitat would be preserved and restored outside the coastal zone. Including the habitat inside and outside the coastal zone, the proposed project would preserve and restore 99.68 acres of wetland and upland habitat.

In addition to the above cited figures, the applicant is proposing to plant the 7.55 acres of interior irrigated slopes (i.e. slopes within the residential development) with native vegetation that is compatible with the habitat within the habitat management plan areas. These interior slopes would be subject to fire fuel modification requirements as described below.

Finally, the applicant is proposing to create a funding program to manage the preserved and restored habitat. The funding would consist of a $250,000 non-wasting endowment provided by the applicant. In addition, there would be an annual homeowner fee paid by the homeowners

association equal to an average of $75 per dwelling unit per year for the 314 dwellings. In total, the funding is anticipated to provide approximately $39,000 per year to support the management efforts.

9. Fire Hazard Management

The proposed development is not located within a designated Very High Fire Hazard Severity Zone which are areas identified by the California Department of Forestry and Fire Protection as requiring intensive fuel modification around structures to protect them from significant fire hazards. However, Orange County Fire Authority (OCFA) is requiring the applicant to implement a fuel management plan due to the proposed retention of open space areas and the planting of native vegetation for habitat restoration that may pose a fire hazard when such areas are adjacent to proposed residential and commercial structures. The proposed fuel management plan is described in the document titled Conceptual Fuel Management Plan dated November 27, 2002 submitted by the applicant and is shown both on the Habitat Management Plan (Exhibit 18) and the Fuel Management Plan (Exhibit 24).

Typically, OCFA requires implementation of a 170 foot wide fuel modification zone adjacent to development that faces upon potentially flammable open space areas[8]. These fuel modification zones would normally require clearing, thinning and strict controls over the types of vegetation located within the 170 foot wide zone. However, in this case, OCFA has approved a site specific fuel management plan that is tailored to existing and proposed site conditions (Exhibit 23). This site specific analysis has demonstrated to OCFA that site conditions, proposed building design features, and proposed setbacks are adequate to protect the proposed development against fire hazards. As a result, there is no 170 foot wide zone required adjacent to the proposed development. In place of this 170 foot wide zone, the site specific fuel management plan relies on more narrow irrigated native plant zones between the development and the open space/habitat enhancement areas (identified as FMMZ I on the HMP map). The FMMZ I irrigated zones would be planted with native grasses that would be mowed yearly. These irrigated zones, combined with proposed roads, trails, fire resistant property perimeter walls, a prohibition within residential lots on the placement of combustible structures between primary residential structures and the open space areas, and use of fire resistant building design features would minimize fire hazards and the need to clear, thin or control the plant palette within the sensitive habitat areas (existing and restored).

None of the existing CSS and wetland habitat to be preserved would be subject to any fuel modification requirements. In addition, a majority of the restored CSS habitat (about 60.87 acres) would not be subject to any fuel modification requirements. However, in addition to the FMMZ I irrigated plant zones described above, there would be about 1.63 acres of restored CSS habitat that would be subject to fuel modification requirements (identified as FMMZ II and FMMZ III zones on Exhibits 18 and 24). Fuel modification in these zones would consist of strict controls on the plant palette, clearing of 40-50% of 'volunteer' high fuel volume plant species that un-intentionally colonize the zone, trimming and hand pruning to maintain required plant heights and removal of dead plant material, and mowing. One such area would be located on the upper slope of the west side of Marblehead canyon adjacent to proposed commercial building no.'s 8 and 9. However, this fuel modification area is located outside of the 100 foot wetland buffer and is not located in an area identified as terrestrial ESHA or ESHA buffer. Another fuel modification area is proposed to be located on some proposed-to-be revegetated slopes adjacent to Avenida Vista Hermosa and Avenida Pico. Once again though, these areas are not within ESHA or any ESHA buffer. Finally, the interior slopes within the proposed residential area that are proposed to be revegetated with native plants would be subject to fuel

[8] Orange County Fire Authority 2001, " Fuel Modification Plans and Maintenance Guideline C-05", 32 p. guidance manual dated April 10, 2001.

modification. However, these interior slopes are not within any ESHA or ESHA buffer, nor are they a formal part of the habitat management plan area proposed by the applicant.

Although the fuel management zones are largely outside of ESHA and ESHA buffers, there are some areas where fuel management would occur within ESHA and ESHA buffers. These encroachments occur in those locations where the development footprint and the ESHA identified on Exhibit 19a intersect.

10. Development Agreement and Specific Plan

The applicant has entered into a development agreement with the City of San Clemente. Where there is no certified local coastal program, such as at the project site, development agreements require a Coastal Commission approval to be effective in the coastal zone. The applicant has not requested the Commission's approval of the development agreement as part of this application.

In addition, a general plan amendment and specific plan was processed for the project at the local level. These documents were submitted as supporting documents by the applicant in their application for the subject coastal development permit. However, the City has not submitted the general plan or specific plan to the Commission for certification as their local coastal program. As described below, there is no certified land use plan or local coastal program for the Marblehead site nor is there one pending.

B. PROJECT SITE HISTORY

Prior to the 1880's, there was no significant development between the bluffs at the Marblehead project site and the Pacific Ocean. However, with the construction of the railroad in the 1880's and El Camino Real in 1929, the bluffs were separated from the coastal dunes, sandy beach and Pacific Ocean. The construction of the Capistrano Shores mobile home park (prior to the Coastal Act) seaward of El Camino Real and the railroad placed another line of development between the bluffs at the site and the Pacific Ocean.

1. A-80-7433 and Site Planning During the 1980's

In 1980, the California Coastal Commission granted Coastal Development Permit A-80-7433 to Marblehead D. Lusk & Son General Partner for the demolition of an abandoned sewage treatment plant on an 18.5 acre parcel within the Marblehead site. The permit was granted without special conditions.

In 1981, the City of San Clemente submitted a land use plan (LUP) for certification to the Commission which included the Marblehead site (then known as Reeves Ranch). The Commission certified the LUP with modifications, including a modification which removed the Marblehead site from the LUP certification. The Commission cited the lack of cohesive plans for development of the site and a lack of appropriate policies to address coastal resource issues at the site in their denial of certification of the LUP for this area. The certified LUP was not adopted by the City, and the certification lapsed after six months. Subsequent LUPs have been submitted and approved by the Commission; however, each of these submittals did not include the Marblehead site. Therefore, there is no certified LUP for the Marblehead site.

In 1987 the City of San Clemente processed an environmental impact report for the Marblehead site which included 27 acres of tourist commercial (TC), 16.3 acres of park, 36.5 acres of residential (250 units), 5.9 acres of very low density residential, and a small parcel of general commercial. The tourist commercial designation was intended for the Nixon Library site. Staff

submitted a letter in response to the Nixon Library Draft Environmental Impact Report; however, the project never progressed beyond the EIR stage and an application was not submitted for a CDP. In this letter, staff expressed concerns regarding coastal canyon setbacks, filling of coastal canyons which were designated as ESHAs, the filling of wetland habitat in coastal canyons, coastal bluff and landform alteration and protection of the Blochman's dudleya on the coastal bluffs.

2. Emergency Bluff Grading during the 1990s

On February 20, 1990, the Executive Director issued Emergency Coastal Development Permit 5-90-122-G to the City of San Clemente for the removal of those portions of the bluff face which were posing an immediate hazard to life and property to those using Pacific Coast Highway (a.k.a. El Camino Real). Unstable blocks of soil which were overhanging the bluff face or which were otherwise unstable were knocked down. The debris was then collected from the toe of the bluff and stockpiled on the subject property. The approved emergency work also included the preparation of pads at the top of the bluff to place equipment for additional bluff hazard remediation.

Subsequent assessments of the hazard remediation which occurred under Emergency CDP 5-90-122-G determined that the emergency had not been satisfactorily abated. Accordingly, after reporting the emergency situation to the Commission during a public comment period on March 13, 1990, the Executive Director issued Emergency Coastal Development Permit 5-90-274-G on April 4, 1990, for the first phase of three phases of bluff stabilization. The Lusk Company, together with the City of San Clemente, asserted that the over-steepened bluffs remained a safety hazard to vehicular traffic and pedestrians along Pacific Coast Highway (a.k.a. El Camino Real). The position of the Lusk Company and the City of San Clemente as to the public safety hazard was supported by the Commission's geologist, Richard McCarthy. During the Executive Director's report of the emergency situation to the Commission, the understanding was that no sensitive habitat was to be impacted by the project.

Phase I grading approved by Emergency Coastal Development Permit 5-90-274-G was for approximately 310,000 cubic yards of grading to lay the bluffs back to a 1.5:1 or 2:1 gradient. Approximately 2,500 linear feet of the coastal bluffs were laid back as a result of this emergency grading in 1990. Soil removed from the bluffs was stockpiled on the property on a relatively flat terrace area located between the western canyon and Marblehead Canyon. In addition, sandy soil –which was anticipated to be useful for beach nourishment purposes- was stockpiled in Marblehead Canyon on the site of the sewage treatment plant which had been demolished in the 1980's.

Prior to the commencement of the bluff stabilization work, it is estimated that approximately 5,000 Blochman's dudleya were salvaged and taken to the Tree of Life Nursery. Other estimates state that 3,700 plants were salvaged, while 2,900 plants were destroyed, out of a total population of approximately 10,000-12,000 plants. In total, about 3.5 acres of Blochman's dudleya habitat area was impacted by the emergency grading. An estimated 4,200 plants remained on site in the Phase II (3,600) and Phase III (600) areas and were not to be impacted by the emergency grading.

In addition, wetlands, maritime bluff scrub, coastal sage scrub, and native grasslands were located within the emergency grading area and the proposed stockpile areas. However, a follow-up biological survey prepared in 1991 reported that, in addition to the impacts to Blochman's dudleya habitat, about 2.5 acres of needlegrass grassland, 3 acres of coastal bluff scrub, and 0.1 acres of wetlands were impacted. In addition, about 47 acres of annual grassland

used as raptor foraging habitat was impacted. The biological report states that raptor foraging activities were significantly impacted by the disturbance to grasslands on the site.

The grading was completed for Phase I but not for Phases II and III. Meanwhile, the applicants submitted a follow-up coastal development permit application (5-90-274) which was eventually withdrawn by the applicant due to financial issues. Subsequently, another follow-up application was submitted (5-94-263) in 1994. However, prior to Commission action on the application, the applicant withdrew this application as well.

In 1995, the Commission granted Coastal Development Permit 5-94-256 and Coastal Development Permit Amendment 5-94-256-A to the City of San Clemente for a slope stabilization project along the bluffs at Colony Cove, which is immediately northwest of the Marblehead project site. In addition, the Executive Director issued Emergency Coastal Development Permit G5-94-256. The slope stabilization project involved the cut of 58,000 cubic yards of soil and 3,000 cubic yards of fill along the bluff and installation of retaining structures. In addition to stabilizing the bluffs at Colony Cove, the stabilization project extended onto the Marblehead project site. Approximately 400 linear feet of bluffs on Marblehead site were graded under 5-94-256, 5-94-256A, and G5-94-256. According to a document in the Commission's files for permit 5-94-256, the City intended to stockpile the soils cut as a result of the stabilization project on the Marblehead site between Marblehead Canyon and the western canyon. According to Exhibit 3 of the Marblehead Coastal Resource Management Plan dated October 1997, the cut material was stockpiled in the planned location. However, Coastal Development Permits 5-94-256, 5-94-256A, and 5-94-256-G did not authorize the stockpile of any soils on the Marblehead site and Commission staff have not been able to locate any coastal development permit approving this stockpile.

On November 5, 1997, the Commission granted Coastal Development Permit 5-97-136 to Marblehead Coastal, Inc. for the implementation of a Blochman's dudleya translocation plan. The translocation plan was intended as mitigation for the impacts to Blochman's dudleya that occurred due to the emergency bluff stabilization. The plan includes the collection of on-site Blochman's dudleya seed, cultivation of seed, re-vegetation with associated native plants, installation of a six foot high chain link fence around a 1.34 acre translocation site, relocation of a sub-sample of Dudleya plants from the natural population (approximately 10 percent) to the 1.34 acre site and establishment of a 50 foot buffer area around the 1.34 acre site. The approval was granted with special conditions requiring implementation of the plan, a requirement for submittal of monitoring reports and failure contingency plan, and restrictions on the use of the 1.34 acre site, with associated deed restrictions.

3. Coastal Development Permit Application 5-99-260 – Recent History

On March 12, 2001, a public hearing was held regarding Coastal Development Permit Application 5-99-260. The applicant, MT No. I LLC, applied for a permit to construct a residential and commercial development, public park, trails and open space and associated infrastructure including roads and utilities on the portion of the Marblehead property within the coastal zone. Included were a property subdivision and construction of 424 single family homes, 84,313 square feet of commercial space in eight commercial buildings in the coastal zone, a 9.4 acre bluff park, and 67.7 acres of public and private open space and pedestrian and bicycle trails. Upon conclusion of presentations by Commission staff and the applicant and conclusion of public testimony, the Commission moved to deny the proposed project because it would not be in conformity with Sections 30213, 30221, 30222, 30223, 30230, 30231, 30233, 30240, 30252, and 30253 of the Coastal Act. However, prior to Commissioners voting on the matter, the applicant withdrew the proposed application.

The proposed development entailed large-scale grading that would dramatically transform the natural landforms on the site. For example, the proposed project would have graded and filled the slopes of two canyons on the project site in order to expand the area of development for single family residences. Some fill slopes within the canyons would be steepened through the use of mechanically stabilized earth structures (a.k.a. loffelstein walls). Approximately 2,000 linear feet of walls were proposed to be constructed within Marblehead Canyon and over 1,700 linear feet of walls were proposed to be constructed in the western canyon. The result of this grading, filling, and use of loffelstein walls would have narrowed the width of the canyons and steepened the canyon walls. These landform alterations would have adverse visual impacts. Grading and construction of walls within the canyons would have occurred within five (5) to 30 feet of existing wetlands. This grading and construction would have eliminated existing native vegetation which provides a buffer for the existing wetlands. In addition, grading and construction within the canyons and grading of coastal bluffs would have eliminated existing Blochman's dudleya, a rare plant. Also, the proposed project would have filled a smaller canyon located between the western canyon and Marblehead Canyon known as the 'trident-shaped' canyon. The proposed development would also have committed land suitable for either visitor serving commercial development or lower cost public recreation opportunities for residential development, a low priority use under the Coastal Act. Finally, the applicant had not submitted sufficient information to allow the Commission to adequately evaluate the impacts of the proposed development on native habitat, wetlands, hydrology, geologic stability, and water quality.

C. BIOLOGICAL RESOURCES

Section 30240 of the Coastal Act states that:

> *(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 those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Section 30250 of the Coastal Act states:

> *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.*

The proposed project would result in impacts to biological resources, including coastal sage scrub and other California gnatcatcher habitat. The project would also have shading impacts to wetlands and make-permanent the impacts to wetlands which occurred during emergency grading of the bluffs. This section contains a description of the known, sensitive biological resources, including wetlands, and associated impacts in order to provide a comprehensive view of the biological resources which are present on the site and the impacts to those

resources. However, impacts to wetlands and their relationship to Coastal Act policy are more fully discussed in the "Wetlands" section of these findings.

The Marblehead site consists of approximately 247.88 acres, of which the most seaward 201.38 acres are in the coastal zone. The project site has been used for a variety of purposes in the past (Exhibit 3). For instance, between 1949 and 1969, a sewage treatment plant was located on approximately 18 acres in Marblehead Canyon. The more level upland areas of the project site have been used for agriculture. Some of these same level upland areas have been used for the placement of soil stockpiles, construction staging areas, and a seasonal carnival. There are several unpaved roads which cross the area.

There are two primary canyons on the project site, the western canyon (Drainage C) and the larger Marblehead Canyon (Drainage E). These canyons contain a variety of sensitive habitat areas. The western canyon is approximately 2,300 linear feet long, runs roughly north-south, and is roughly perpendicular to the bluff face and El Camino Real. Alkali meadow wetlands course through the canyon bottom. Ephemeral drainages are found at the head of the canyon. The mouth of the canyon was graded by the emergency grading in 1990. Coastal sage scrub, annual grasslands and native needlegrass grasslands cover the slopes that form the canyon walls. In addition, a population of Blochman's dudleya is located near the mouth of the canyon. This canyon contains habitat which has been occupied by California gnatcatcher according to surveys conducted in 1997, 1999/2000 and 2001. In 2001, a breeding territory was located here and adults were seen with dependent fledglings. The deeper, seawardmost parts of the canyon have been recorded as gnatcatcher habitat for over ten years.

Marblehead Canyon is the largest canyon on the project site (about 3,700 linear feet) and roughly bisects the property running in a north-south configuration perpendicular with the bluffs and El Camino Real. Alkali meadow, freshwater, and mulefat scrub wetlands course through the canyon bottom. The slopes of the canyon are covered by coastal sage scrub, annual grasslands and non-native pine woodlands. There is an approximately 1,600 foot long linear canyon which branches off the main part of Marblehead Canyon (herein 'eastern branch of Marblehead Canyon) that contains wetlands, coastal sage scrub, and annual grassland. South of the east branch there is also a deep trench-like formation which extends from the main body of the canyon to Avenida Pico which may be related to the former sewage treatment plant. Coastal sage scrub and wetlands are present in this deep trench. Ephemeral drainages are found at the heads of the various branches and spurs off Marblehead Canyon. This canyon contains habitat that has been occupied by California gnatcatcher according to surveys conducted in 1996, 1997, 1999/2000 and 2001. Similar to the western canyon, another breeding territory was located here, and adults were seen with dependent young in 2001. As with the western canyon, a large area of this canyon has also been recorded as gnatcatcher habitat for over ten years.

Two smaller drainages (Drainage A and B) west of the western canyon also contain wetlands, coastal sage scrub and Blochman's dudleya. Parts of the mouths of these drainages were graded in 1990 in the emergency bluff stabilization. Ephemeral drainages occur at the heads of these drainages. Drainage B contains habitat which has been occupied by California gnatcatcher according to surveys conducted in 1997, 1999/2000 and 2001.

There is also a small canyon (Drainage D or 'trident canyon') located between the western canyon and Marblehead Canyon that contains native needlegrass grassland, goldenbush/annual grassland and non-native pine woodland. This canyon is roughly trident-shaped. Ephemeral drainages are present at the head of each trident. The mouth of the canyon was graded in 1990.

The bluffs overlooking El Camino Real and the Pacific Ocean range in height between 70 feet and 100 feet. Coastal sage scrub and Blochman's dudleya are found in areas not disturbed by the 1990 grading.

There is one blue-line stream (the Sequnda Deschecha channel) on the United States Geologic Service (USGS) map for the area which is immediately adjacent to and outside the project site adjacent to the existing Blochman's dudleya reserve created pursuant to CDP 5-97-136. According to the applicant's submittal, the proposed development would not result in impacts to this channel.

Appendix A lists the biological analyses prepared for the project site submitted by the applicant which identify and characterize the resources found on the site. These studies formed the basis for the analysis of biological resources and potential impacts in the Marblehead Coastal Final Environmental Impact Report dated June 1998 (FEIR), the Addendum to Final Environmental Impact Report (Addendum FEIR) dated February 2000, and the Marblehead Coastal Project Habitat Management Plan dated November 28, 2001, for the Marblehead project. Supplemental analyses of biological impacts were also submitted by the applicant and are listed in Appendix A.

1. Habitat Areas on the Marblehead Site

There are several plant communities that are found on the Marblehead site. Recently, the applicant has submitted an updated vegetation map of the project site which shows that the habitat areas have changed since those reported in the biological study prepared for the EIR. Based on the revised vegetation mapping, there is coastal bluff scrub, sagebrush scrub, southern willow scrub, coyote bush scrub, saltbush scrub, and other mixed scrubs, annual grassland, native needlegrass grasslands, and mixed grasslands, alkali marsh, freshwater marsh, mulefat scrub, non-native Allepo Pine woodland, and disturbed ruderal habitat (Exhibit 15). In addition to these habitat areas, one sensitive non-wetland plant species was identified, Blochman's dudleya. Following is an acreage breakdown of the habitat types identified on the Marblehead site:

PLANT COMMUNITY	SUB ASSOCIATIONS	ACRES OF HABITAT IN THE COASTAL ZONE (APPROX.)
Coastal Sage Scrub	Coastal bluff scrub	1.83
	Southern Willow Scrub	0.07
	Sagebrush Scrub	1.84
	Coyote Bush Scrub	3.70
	Salt Brush Scrub	3.20
	Coyote Bush/Saltbush	1.56
	Mixed Scrub	0.68
	Mixed Scrub/Annual Grassland	0.82
Grassland	Annual Grasslands	1.43
	Golden Bush/Annual Grassland	2.00
	Needlegrass Grasslands	0.62
Wetlands	Alkali Marsh	3.40
	Alkali Meadows	0.56
	Seasonal Wetlands	0.21
	Freshwater Marsh	0
Riparian (wetlands)	Mulefat Scrub	0.89
	Willow	0.04
Developed	Ornamental Landscaping	2.64
	Developed	0.03
Disturbed/Ruderal	Disturbed or Barren	163.07
Other	Pine Woodlands	3.67
	Naturalized Exotics	9.05
	Tamarisk Scrub	0
	Rockpile	0.08

Additionally, the FEIR identifies the habitats, plants, or animals considered to be "sensitive" under a variety of criteria including: 1) listing as rare, threatened, or endangered under the Federal and/or State Endangered Species Acts; 2) State or Federal Candidates for listing as rare, threatened or endangered; 3) California Species of Special Concern; 4) Special Plants or Animals as listed by the Department of Fish and Game; 5) plant species included in the California Native Plant Society's "Inventory of Rare and Endangered Vascular Plants of California"; or 6) plant or animal species considered locally uncommon or declining by biologists familiar with regional population trends. These areas identified as "sensitive" by the FEIR are useful in identifying areas which would be designated as environmentally sensitive habitat area under the Coastal Act but such designations in the FEIR are not determinative relative to ESHA.

a. Coastal Sage Scrub Community

According to the applicant's submittal, there are 13.7 acres of coastal sage scrub on the project site within the coastal zone. The coastal sage scrub community consists of several types of scrub habitats including coastal bluff scrub, southern willow scrub, sagebrush scrub, coyote bush scrub, saltbush scrub and various mixtures thereof. According to the updated vegetation survey, the presence of California box thorn (Lycium californica) is the primary indicator of this habitat type on the Marblehead site with lower quantities of bladderpod and coast sunflower. On the Marblehead site, the Blochman's dudleya has been found in association with this plant community. The sagebrush scrub community is characterized by the presence of dense stands of California sagebrush (Artemesia californica). Coyote bush scrub is characterized by the presence of Coyote bush (Baccharis pilularis consanguinea). Finally, saltbush scrub contains Brewer's saltbush (Atriplex lentiformis lentiformis). Mixed sage scrub contains California buckwheat (Eriogonum fasciculatum, sage (Salvia spp.), sticky-leaved monkeyflower (Mimulus aurantiacus), coyote brush (Baccharis pilularis), coast goldenbush (Isocoma menziesii), coast sunflower (Encelia californica), and laurel sumac (Malosma laurina).

b. Grassland Community

According to the applicant's submittal, there are various types of grassland communities on the project site. These include Goldenbush/Annual grassland that is primarily located in the trident canyon and consists of non-native brome grasses, Italian ryegrass and rattail fescue interspersed by Coast goldenbush shrubs. There is also a mixed scrub/annual grassland that is primarily within the sand stockpile area of the site that contains coyote brush, coast goldenbush, saltbush and California sagebrush with an understory of non-native annual grasses and forbs. Native needlegrass grasslands are located in the western canyon and trident canyon and have purple needlegrass (Nassella pulchra), foothill needlegrass (Nassella lepida), coast range melic (Melica imperfecta) and june grass (Koeleria macrantha). Forbs include blue-eyed grass (Sisyrinchium bellum), wild hyacinth (Dichelostemma capitatum), golden stars (Bloomeria crocea), and shooting stars (Dodecatheon clevelandii). Non-native annual grasslands are found in the western corner of the site and have red brome, rattail fescue, and Italian ryegrass.

c. Wetlands

There are 5.13 acres of wetlands in the project area within the coastal zone. These wetlands are comprised of alkali marsh, alkali meadow, seasonal wetland, and mulefat scrub. The alkali marsh and meadow and seasonal wetlands are characterized by the presence of alkali heath (Frankenia salina), coastal salt grass (Distichilis spicata spicata), and common woody pickleweed (Salicornia virginica), coastal bulrush (Scirpus robustus) and slender cattail (Typha domingensis). These wetland areas are not subject to tidal inundation. The presence of these plants indicates there are alkali soils in the drainages. Mulefat scrub areas contain arroyo willow (Salix lasiolepis) and mulefat (Baccharis salicifolia).

d. Developed

There are 2.67 acres of habitat that have been identified by the applicant as "developed" because they contain ornamental vegetation. Ornamental vegetation includes trees and groundcover. Iceplant (Malephora crocea) is the dominant plant cover.

e. Disturbed/Ruderal

There are 163.02 acres that are described as disturbed/ruderal. These areas include slope stabilization and graded areas, dirt roads, and areas which have been cleared and disked on a regular basis.

f. Other

According to the applicant, there are 3.67 acres of area described as pine woodland and 9.05 acres of area described as naturalized exotics. The pine woodland areas contain allepo pines (Pinus halepensis), which the FEIR describes as a planted ornamental tree. These areas have an open canopy of allepo pines and an understory of annual grassland.

Areas characterized as naturalized exotics include ornamentals and annual grasslands which the FEIR states have invaded bluff habitat areas.

g. Plants

In addition to the habitat areas, one sensitive upland plant species was identified on the Marblehead site, the Blochman's dudleya (*Dudleya blochmaniae ssp. blochmaniea*). The Blochman's dudleya is a perennial succulent plant species found on coastal bluffs from San Luis

Obispo County, California, into the Baja peninsula. The Blochman's dudleya is a small plant which grows with spring rainfall, flowers in April and May and then remains dormant during the summer and fall. The plant survives on starch reserves stored in the underground caudex or stem, similar to a bulb. The plant reproduces primarily by seed but can reproduce vegetatively, via detached leaves. The plant is found on the margin of open areas on coastal bluffs and usually in association with other native plants such as California boxthorn, California sagebrush, coastal goldenbush (Isocoma menzeisii), golden tarplant (Hemizonia fasiculata) and the lance leaf dudleya (Dudleya lanceolata). The California Native Plant Society (CNPS) has placed Dudleya blochmaniae on List 1B of their plant inventory indicating that the species is rare throughout its range and has been judged by CNPS to be "...vulnerable under present circumstances or to have a high potential for becoming so because of their limited or vulnerable habitat, their low numbers of individuals per population (even though they may be wide ranging), or their limited number of populations."[9]

2. Wildlife on the Marblehead Site

According to the FEIR, a variety of wildlife are expected within the coastal sage scrub habitats on the project site. Amphibians include the Pacific slender salamander (Batrachoseps pacificus), western toad (Bufo boreas), and Pacific treefrog (Hyla regilla). Reptiles include side-blotched lizard (Uta stansburiana), western whiptail (Cnemidophorus tigris), and gopher snake (Pituophis melanoleucus). Bird species include California towhee (Pipilo crissalis), Bewick's wren (Thrymmanes bewickii), western kingbird (Trannus verticalis), rufous-sided towhee (P. erythrophthalmus), scrub jay (Aphelocoma coerulescens), bushtits (Psaltriparus minimus), coastal California gnatcatcher (Polioptila californica), and house finch (Carpodacus mexicanus). Open shrub areas provide foraging areas for raptors including red-tailed hawk (Buteo jamaicensis), turkey vulture (Cathartes aura) and American kestrel (Falco sparverius). Small mammals include deer mouse (Peromyscus maniculatus), and house mouse (Mus musculus). Large mammals include California ground squirrel (Spermophilus beecheyi), desert cottontail (Sylvilagus audubonii), long tailed weasel (Mustela frenata), striped and spotted skunks (Mephitis mephitis and Spilogale gracilis), and coyote (Canis latrans). Woodrats (Neotoma spp.) may also be present.

According to the FEIR, wildlife expected in grasslands include birds such as towhees, sparrows, quail, and finch. In addition, lesser and American goldfinches (Carduelis psaltria and C. tritis) would also be found. Raptors include turkey vulture, red tailed hawk, black shouldered kite/white tailed kite (Elanus caeruleus), American kestrel, barn owl (Tyto alba) and great horned owl (Bubo virginianus). Small mammals include deer mouse, house mouse, California ground squirrel, cottontail skunks, and coyote. In addition, California vole (Microtus californicus) and Botta's pocket gopher (Thomomys bottae) would be present.

Wildlife in wetland habitats include the Pacific tree frog (Hyla regilla) (was the only recorded amphibian) although, according to the FEIR, other amphibians mentioned above are likely. Birds specific to riparian areas include snowy egret (Egretta thula), American koot (Fulica americana), common yellow throat (Geothlypis trichas), and red winged blackbird (Agelaius phoeniceus).

According to the FEIR, one sensitive species of wildlife has been recorded on the project site, the coastal California gnatcatcher (Polioptila californica). The California gnatcatcher is listed by the U.S. Fish and Wildlife Service (USFWS) as threatened. According to the FEIR, the California gnatcatcher is an obligate, year-round resident of coastal sage scrub vegetation communities. California gnatcatchers primarily feed upon insects which are eaten directly off of coastal sage scrub vegetation.

[9] California Native Plant Society 2001, "Inventory of Rare and Endangered Plants in California", 6th Edition, 2001

In addition to the species identified in the FEIR, previous biological surveys have identified species which were not identified by the most recent surveys. For instance, according to the 1991 Biological Assessment Update prepared by Fred Roberts, a 1985 biological survey titled Biological Assessment Update for the Marblehead Coastal Project prepared by Karlin Marsh and Gordon Marsh noted that the project site was "...locally significant for raptors, including one species, the northern harrier, which is considered rare by the California Natural Diversity Data Base...". Also, Commission staff have observed white-tailed kite (Elanus leucurus) foraging on the project site and a Loggerhead shrike (Lanius ludovicianus) perched on a pine snag. The white-tailed kite is a state listed Fully Protected species. In addition, the Loggerhead shrike is a state listed Species of Special Concern.

Other winter and breeding season bird surveys were conducted at the site in 2001. The winter period survey, prepared by Klein-Edwards Professional Services, documents the presence of Sharp-shinned Hawk (Accipiter striatus), Red-shouldered Hawk (Buteo lineatus), Red-tailed Hawk, American Kestrel (Falco sparverius), and Burrowing Owl (Speotyto cunicularia). The survey also documents the presence of other wildlife including a variety of birds such as killdeer, greater yellowlegs, mourning dove, common ground-dove, Anna's hummingbird, European starling, American pipit, yellow-rumped warbler, common yellowthroat, California towhee, savannah sparrow, song sparrow, white-crowned sparrow, red-winged blackbird, western meadowlark, Brewer's blackbird, house finch, lesser goldfinch. The report also notes the presence of a mated pair of gnatcatchers and an additional individual. Other wildlife include Pacific chorus frog, Audubon's cottontail, California ground squirrel, Botta's pocket gopher, and raccoons. In addition, a variety of invertebrates were identified including monarch butterfly. The variety of wildlife observed in this brief winter survey indicates the presence of a wide variety of species utilizing habitat present on the project site.

A breeding season survey was also conducted during 2001. The study indicates that Cooper's hawk, red-tailed hawk, and American kestrel were observed to forage at the site . However, the survey did not detect any occupied or defended nest sites or feeding young. Therefore, the survey makes a determination that conditions at the site are not currently conducive to nesting. This may be a result of a lack of tall trees for raptor perching and nesting on the project site. However, it remains that the site is utilized as foraging area.

Some species that dwell off-site but periodically visit the site are important to maintaining the current balance of wildlife on the site. For instance, the FEIR notes that coyote are present on the project site. Larger predators, such as the coyote, are important in controlling the presence of smaller predators that prey on avian species. In the absence of these larger predators, the diversity of avian species at the site is likely to decrease notably[10].

3. Environmentally Sensitive Habitat Areas

Environmentally sensitive habitat areas are defined in Section 30107.5 of the Coastal Act, as follows:

> *"Environmentally sensitive area" means 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 disturbed or degraded by human activities and developments.*

[10] Crooks, K.R. and M.E. Soulé. 1999. Mesopredator release and avifaunal extinctions in a fragmented system. Nature 400:563-566.

Section 30240 of the Coastal Act requires that environmentally sensitive habitat areas be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. It also regulates the siting and design of adjacent development that could degrade ESHA or be incompatible with its continuance.

The applicant has submitted an analysis, including a map, of specific locations that they have identified as ESHA on the project site (Exhibit 19b). The applicant's analysis states that their ESHA determination is based on the following criteria: 1) all wetland areas in the coastal zone; 2) areas of suitable habitat observed to be used by the coastal California gnatcatcher during the breeding season, immediately contiguous habitat, and inclusions of non-native habitat or bare dirt; 3) areas containing Blochman's dudleya; 4) areas containing coastal bluff scrub; 5) areas containing needlegrass grassland; and 6) areas containing California sagebrush except for extremely small isolated patches not used by the California gnatcatcher and patches directly beneath non-native pines or eucalyptus trees.

The criteria used by the applicant to identify ESHA are sensible. Each one defines an area in which plant life, animal life, and/or their habitats are rare and/or especially valuable (in most cases because they support sensitive or threatened species). In addition, each one defines an area that is easily disturbed or degraded by human activities and development. Similar to the applicant, the Commission identifies ESHA on the project site based on the presence of sensitive vegetation communities such as Blochman's dudleya and its' habitat (coastal bluff scrub) and other rare vegetation communities such as native perennial grasses. The Commission also identifies areas that are utilized by or necessary for the survival of California gnatcatcher as environmentally sensitive habitat areas (ESHAs). Generally speaking, these ESHAs are based on the estimates of gnatcatcher use area in the canyons below the top of slope. The rationale for the designation of ESHA is explained more thoroughly below as well as within Exhibit 26[11].

Although the applicant's and the Commission's rationales for identifying ESHA may be similar, the ESHA designated by the applicant and the Commission are not the same. In some cases, the ESHA designated by the Commission is larger than that which is identified by the applicant and in other cases it is smaller. The more significant differences may be found in the areas of Drainage B and Spur E2 on the west side of Marblehead canyon. The Commission's ESHA designation (Exhibit 19a) is larger in these locations. In addition, other than 100 foot wide wetland buffers, the applicant has not identified any terrestrial ESHA buffers. The Commission would require the establishment of terrestrial ESHA buffers and connectivity areas in order to prevent the degradation of the terrestrial ESHA. As proposed, there is grading, roads, houses and other development immediately adjacent to and within ESHAs. Conformance with Section 30240 of the Coastal Act would necessitate the removal of significant development (e.g. houses, roads, detention basins.) from within the ESHA and ESHA buffers.

a. Blochman's dudleya and Coastal Bluff Scrub Plant Community

The California Native Plant Society (CNPS) has placed Dudleya blochmaniae on List 1B of their Inventory of Rare and Endangered Vascular Plants. According to the CNPS classification, the plant is eligible for state listing as an endangered species.

The Dudleya blochmaniae is found at three known sites in Orange County; at the Dana Point Headlands, San Clemente State Beach, and at Marblehead, the project site. Within Orange County, the Marblehead site has the largest population. A 1991 biological assessment (1991 Biological Assessment Update Marblehead Coastal Project Site, San Clemente, California) by

[11] Wetlands may constitute another type of ESHA on the project site that are discussed elsewhere in the 'wetlands' section of these findings.

Fred Roberts (herein '1991 biological survey') states that the estimated population of Dudleya blochmaniae was approximately 10,500-12,000 individual plants. The Dana Point Headlands has a population of approximately 250 plants according to the Dana Point Headlands Development and Conservation Plan EIR. The San Clemente State Beach population is estimated as 150-300 plants. Additionally, there is a Camp Pendleton population in San Diego County estimated at perhaps 500 plants.

Roberts lists several factors that limit the spread of the Blochman's dudleya. These factors are that the plant: requires a specific maritime climate; is found near the coast; has very specific soil requirements; and does best where there is little or no competition from other plants. Blochman's dudleya is also sensitive to artificial irrigation that does not mimic the natural wet and dry seasons typical for southern California. The subsurface corm, from which the plant grows, can rot and die if it becomes wet from irrigation during spring and summer. Trampling during the growing season is also a threat to the plants survival. Finally, herbivory impacts the plants as well. Roberts also notes that the population must be shielded from long-term impacts, such as future development.

According to the 1991 biological survey, Blochman's dudleya was likely present over much of the project site at one time. However, cultivation, disking –and more recently grading associated with bluff stabilization-, has significantly decreased the extent of the population on the site. Presently, there are two known populations at the site. The first population is located along the bluffs overlooking El Camino Real at the southwest corner of the site and within the western canyon. The size of this population reported in various biological assessments has varied from 3,000 to 5,000 individuals. According to a recent biological survey (Year 6 Annual Report for the Blochman's Dudleya Translocation Plan for Marblehead Bluffs by RECON dated October 11, 2001 herein '2001 transplantation monitoring report'), there are approximately 3,000 individuals presently located in this area. The second population is within the existing Blochman's dudleya reserve located at the southeast corner of the site created under CDP 5-97-136. The 2001 transplantation monitoring report indicates that approximately 16,000 individuals have been transplanted to this reserve. The actual total population count was not reported; however, the applicant reports that there are about 5,000 flowering individuals.

The Dudleya blochmaniae is only found in a few small populations throughout California and Mexico. This small population and limited range cause the Dudleya blochmaniae to be rare. In addition, the population at the Marblehead project site is especially large compared with other populations in the region, causing that population to be especially valuable. Larger populations are valuable because they tend to have more genetic diversity that allows the population to better withstand the kinds of environmental stresses (disease, drought, etc.) that may tend to extirpate smaller populations. The genetic diversity also makes the population a resource for augmenting or creating other populations in other suitable habitat. Furthermore, due to the very specific conditions upon which the Dudleya blochmaniae are dependent to survive, the Dudleya blochmaniae could be easily disturbed by human activity. Therefore, the Commission finds that the areas containing Dudleya blochmaniae on the Marblehead site are environmentally sensitive areas under Section 30107.5 of the Coastal Act because they are areas in which rare and especially valuable plants exist and are easily disturbed by human activities.

Also, as noted above, the Blochman's dudleya generally grows best where there is little or no competition from other plant species and where it can be shielded from herbivores and trampling. Coastal bluff scrub, a CSS vegetation community, is most commonly associated with Blochman's dudleya. The coastal bluff scrub community is associated with other plant species such as California boxthorn (Lycium californica), California sagebrush (Artemisia californica), coast goldenbush (Isocoma menziesii, golden tarplant (Hemizonia fasciculate), mariposa lily (Calochortus sp., lance leaf dudleya (Dudleya lanceolata, pineapple weed (Amblyopappus

pusillus), and gumplant (Grindelia robusta). While the Blochman's dudleya can grow in full sun, the plant is often found as an understory species to boxthorn and goldenbush which are thought to serve as nurse plants that protect the species from herbivory and desiccation. The project site does contain coastal bluff scrub areas where Blochman's dudleya have not been recorded. The coastal bluff scrub plant community is distributed at localized sites along the coast, south of Point Conception; and at Point Magu, Point Dume, Point Vincente, Dana Point, Torrey Pines State Reserve, and Point Loma. Coastal bluffs along the southern California coastline have been heavily developed, therefore, this plant community is rare. Due to its rarity, the California Department of Fish and Game has listed the vegetation association as a high priority for inventory under the California Natural Diversity Database[12]. In addition, this plant community is especially valuable as habitat for Blochman's dudleya. Finally, this plant community could be easily disturbed by human activity. Therefore, the Commission finds that the areas fostering the coastal bluff scrub community on the project site are ESHA.

b. Coastal Sage Scrub – Current Determination Regarding ESHA

"Coastal sage scrub" or "soft chaparral" (herein 'CSS') is a general vegetation type characterized by special adaptations to fire and low soil moisture. The defining physical structure in CSS is provided by small and medium-sized shrubs which have relatively high photosynthetic rates, adaptations to avoid water loss, including drought deciduousness, and adaptations to fire, such as the ability to survive the loss of above-ground parts and re-sprout from root crowns. In addition to twenty or so species of perennial shrubs, such as California sage brush, CSS is home to several hundred species of forbs and herbs, such as the California poppy. For convenience in mapping and management, CSS periodically has been divided into many types and sub-types, such as "southern coastal bluff scrub" and "Diegan sage scrub," based on geographic location, physical habitat, and species composition.[13] Some of these types may be comprised of distinct groups of co-evolved species that represent some underlying evolutionary reality, but many simply document current patterns of association that are sufficiently common to warrant a name.

About 14 acres of various types of coastal sage scrub habitats are present on the Marblehead site. The stands are degraded, scattered throughout the several drainages/canyons and interspersed with non-native grasslands. The flat portions of the site are disked regularly and, therefore, do not support perennial vegetation. Despite the fragmented and degraded nature of the scrub habitats that are present, they are occupied by the California gnatcatcher (federally designated as "threatened"), a species dependent on scrub habitats. The presence of two pairs of gnatcatchers was documented in 1990, one pair was observed in 1996, and two pairs were recorded in 1997.[14] Additional surveys done in 1999/2000 indicate that up to three pairs occupied the site.[15] One pair and at least one other individual were observed by the applicant's biological consultant during an agency site visit in 2000.[16] Finally, surveys conducted in 2001[17] found two pairs on the site, each with five fledglings. The location of these birds has not been the same each year. Therefore, it appears likely that the site has generally supported two to

[12] California Department of Fish and Game 2002, California Natural Diversity Database, List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database dated May 2002.
[13] Axelrod, D.I. 1978. The origin of coastal sage vegetation, Alta and Baja California. American Journal of Botany 65:117-131; Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Unpublished report. Sacramento, California Department of Fish and Game; Sawyer, J.O. and T. Keeler-Wolf. 1995. A manual of California vegetation. Sacramento, California Native Plan Society.
[14] City of San Clemente. 1998. Final Environmental Impact Report. Marblehead Coastal General Plan Amendment 96-01, Specific Plan 95-02, Tentative Tract Map. State Clearing House Number 95091037. A report prepared by David Evans and Associates dated June 1998 and adopted August 5, 1998.
[15] Bartel, J.A. and W.E. Tippets. 2000. Letter to James Hare, City of San Clemente, authorizing incidental take of gnatcatchers at Marblehead.
[16] Tony Bomkamp personal communication to John Dixon April 5, 2000.
[17] Glenn Lukos Associates. 2001. Letter report to U.S. Fish and Wildlife Service titled Submittal Requirements of Coastal California Gnatcatcher Surveys on the Marblehead Project Site, City of San Clemente, Orange County, California.

three pairs of California gnatcatchers and much of the scrub habitat may potentially be occupied at one time or another.

Marblehead will be covered by the South Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which is being prepared by the California Department of Fish and Game (CDFG) and the U. S. Fish and Wildlife Service (USFWS). However, no written plan has been prepared to date. When completed, this plan will cover an overall area of about 130,000 acres, encompassing a variety of land uses and habitats. As planned, the 250-acre Marblehead project will result in the loss of about 3.28 acres of the 14 acres of coastal scrub and the "take" of probably one pair of California gnatcatchers[18], which is permitted by a Special 4(d) "take" authorization that has already been issued by the USFWS (Exhibit 21). According to the Special 4(d) "take" authorization letter, such authorization may be granted prior to the formal adoption of the South Subregion NCCP/HCP when a proposed "take" meets certain criteria outlined in the NCCP Process Guidelines. These criteria include measures related to cumulative losses of coastal sage scrub habitat within the affected subregion, avoidance of interference with habitat connectivity goals, and minimization of the impact, among other criteria (Exhibit 21).

When development of the site was previously before the Commission (CDP Application 5-99-260), the applicant asserted that the granting of the Special 4(d) "take" authorization by USFWS effectively determined "...that existing coastal sage scrub (CSS) and gnatcatchers on the Marblehead Coastal property are not "essential to the conservation" of the gnatcatcher and not in need of "special management considerations."[19] The applicant argued that USFWS' determination was equivalent to stating that the CSS on the project site was not ESHA. Furthermore, the applicant had previously argued that the Marblehead site does not contain ESHA because the site is not included as "Critical Habitat" in the USFWS' designation of such habitat. It may be the case that the California gnatcatcher species may not be dependent on the survival or reproductive success of those gnatcatcher pairs presently utilizing coastal sage scrub at Marblehead, or of other pairs that might occupy that habitat in the future. However, as discussed below, these determinations by other agencies do not mean that the CSS and California gnatcatcher habitat on the project site are not ESHA under the Coastal Act.

Some have argued that if an area is covered by an NCCP/HCP and that area is not designated for conservation in the NCCP/HCP, it is *ipso facto* not ESHA. For example, one of the applicant's consultants wrote, "Although coastal sage scrub has in some areas been considered a sensitive habitat because of its connection to the California gnatcatcher, the coastal sage scrub in all of the surveyed areas do not represent occupied habitat. Its lack of uniqueness or special habitat value was officially confirmed by the decision of the California Department of Fish and Game and the U.S. Fish and Wildlife Service in approving the Central Coast Natural Communities Conservation Plan...."[20] When development of the project site was previously before the Commission (CDP Application 5-99-260), the applicant's consultant concluded that, "...based on the findings and actions of both CDFG and the Service in regards to the Marblehead Coastal property, it does not make sense to designate the CSS and occupied gnatcatcher habitat located on the Marblehead site as an ESHA."[21] The Commission believes that these analyses are incorrect because they are critically reliant on three fallacious assumptions: 1) that coastal sage scrub is a sensitive habitat only because of its importance to listed species, particularly the California gnatcatcher, 2) that if an area is subject to an NCCP/HCP, but not designated conservation, this fact demonstrates that the resource agencies

[18] U.S. Fish and Wildlife Service & California Department of Fish and Game 2002, "Request for Determination of an Amendment to the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, City of San Clemente, California", letter to the City of San Clemente dated August 30, 2002

[19] Meade, R. J. 2000. Memo to Karl Schwing dated November 28, 2000.

[20] emphasis added.

[21] Mead, 2000, op. cit.

consider the area to have no special habitat value, and 3) that there is no sensible basis upon which to designate an area as ESHA if it is covered by an NCCP/HCP but not protected.

First, it is important to recognize that coastal sage scrub, as a habitat type, can qualify as ESHA regardless of the presence of California gnatcatchers. Indeed, if the gnatcatcher became extinct, CSS could still be ESHA. Section 30107.5 of the Coastal Act states, "'Environmentally sensitive area' means 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 disturbed or degraded by human activities and developments." It is probably universally accepted among specialists that CSS is easily degraded and in fact has been destroyed by development over large areas of the state.[22] About 2.5% of California's land area was once occupied by CSS. In 1981, it was estimated that 85% to 90% of the habitat type had been destroyed state-wide and, in 1991, it was estimated that San Diego, Orange, and Riverside counties had lost 66% of their CSS.[23] Current losses are higher and losses in the coastal zone have undoubtedly been much higher. Compared to its natural distribution and abundance, CSS is in decline and it is in decline because it has been destroyed by human activities. Unfortunately for the habitat type, it occupies shallow slopes on lower elevations of coastal mountain ranges, areas that are understandably prized for development. Besides being in decline, CSS provides important ecological functions. It can be home to some 375 species of plants, many of which are local endemics. About half the species found in CSS are also found in chaparral after fire, but disappear from that habitat after about seven years. CSS may provide a spatial refuge for those herbs between fires.[24] Nearly 100 species of rare plants and animals are obligately or facultatively associated with coastal sage scrub habitats.[25] In addition, coastal sage scrub is often the natural upland habitat adjacent to wetland habitats such as coastal salt marshes and vernal pools, and is important to species that require both habitat types to complete their life cycle.

The second incorrect assumption is that areas not protected under an NCCP/HCP have been implicitly designated as unimportant habitat by the resource agencies. It must be recognized that the NCCP/HCP effort is a process by which resources in some areas are sacrificed to development in exchange for permanent protection of other resources in other areas. The actual trades that take place are determined in the context of a regional planning effort. This effort incorporates both ecological needs and development constraints. For example, to insure the long-term perpetuation of biological diversity within a region, it might be more important to protect degraded habitat that provides a critical movement corridor than to protect pristine habitat that is isolated from the major habitat blocks within the planning area. It also is the case that good habitat is sacrificed in some areas of prime development potential in order to provide an incentive to municipalities and property owners to participate in the NCCP/HCP program if the net effect is believed to be most protective of resources over the long run. At heart, this is a negotiated process and therefore it is also somewhat dependent on the skill of the negotiators for the various interests. These ecological and practical constraints and compromises are part and parcel of natural community conservation planning and demonstrate that no inferences regarding quality or value, particularly the local quality and value, of habitats can be drawn simply from the fact that a particular area is not protected by the governing plan. Also, it should be noted that NCCP/HCP regional planning efforts are experimental and the success of these planning efforts on many levels, including in terms of conservation of the species that are

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[22] Mooney, H.A. 1977. Southern Coastal Scrub. Pages 471-489 in M.G. Barbour and J. Major, eds. Terrestrial Vegetation of California. Davis, U.C. Press; Westman, etc

[23] Westman, W.E. 1981. Factors influencing the distribution of species of California coastal sage scrub. Ecology 62:439-455; Michael Brandman Assoc. 1991. A rangewide assessment of the California gnatcatcher. A report to the Building Industry Association of Southern California cited by J.E. O'Leary, et al. 1994, below.

[24] Westman, W.E. 1979. A potential role of coastal sage scrub understories in the recovery of chaparral after fire. Madroño 26:64-68.

[25] O'Leary, J.F., et al. 1994. Bibliographies on coastal sage scrub and other related malacophyllous shrublands of Mediterranean-type climates. California Wildlife Conservation Bulletin No. 10.

targeted for protection, is presently uncertain[26].

Finally, there actually are many sensible bases for designating as ESHA some areas that have not been protected under a regional NCCP/HCP. For example, even degraded coastal sage scrub may provide essential habitat for species that require both CSS and saltmarsh plants to complete their life cycle. In the heart of urban environments, CSS may still support many bird species when there is sufficient open space to include coyotes in the system. CSS within urban environments can also provide refuges for sensitive bird species, such as the gnatcatcher, that may repopulate larger preserves nearby that may be severely impacted by events such as fires that reduce or destroy that preserve's population (i.e. 'rescue effect'). High quality coastal sage scrub also may be of significant value in heavily urbanized areas by contributing to the local diversity of vegetation, even if it is so isolated as to lose much of its wildlife value. In addition, some categories of coastal sage scrub, such as southern coastal bluff scrub, are so rare that they may be inherently deserving of protection wherever they are found. Aside from being a rare habitat in and of itself, coastal bluff scrub on the project site is associated with two sensitive species, the coastal California gnatcatcher and Blochman's dudleya. Of course, if a stand of coastal sage scrub is home to listed species, the presumption should generally be that the habitat is ESHA in the absence of compelling evidence to the contrary.

It is evident that California coastal sage scrub is a habitat that could qualify for the designation as ESHA under the Coastal Act, regardless of the presence of the California gnatcatcher or any other particular species. However, that fact does not imply that every particular stand of vegetation designated as "coastal sage scrub" is ESHA. Section 30240 of the Coastal Act protects ESHA from any significant disruption of habitat values and confers considerable protection to adjacent areas. Given the far reaching implications of designating an area as ESHA, it is incumbent upon the Commission to use this designation with regard to a general category of habitat, such as coastal sage scrub, only where the local habitat itself meets the test of being rare or especially valuable because of its special nature or role in an ecosystem. However, in this context, it is important to remember that the meaning of the word "ecosystem" does not contain any guidance as to the portion of the biosphere included. An ecosystem is simply the combination of a biotic community and its environment. It is up to the practitioner to define the boundary of any "ecosystem" under consideration. It could encompass the world or only the practitioner's own back yard. Therefore, a local area could certainly be an ESHA if it provides an important function in a local ecosystem, regardless of its regional significance. In summary, a case-by-case analysis is required, which has always been the Commission's approach.

In the case of Marblehead, there are several types of coastal sage scrub present. At the rare end of the spectrum is coastal bluff scrub which is present in several small patches and at the other end is coyote bush which is common and tolerant of disturbance. If coastal sage scrub has supported successful reproduction by California gnatcatcher, based on existing conditions, the areas of CSS and other habitat within the use area of the gnatcatchers should be designated ESHA under the Coastal Act (Exhibit 19a).

Another factor the applicant has asked the Commission to consider in determining whether any of the CSS on the project site should be considered ESHA relates to whether the CSS on the site is acting as an ecological "sink" to the detriment of the gnatcatcher species. In the parlance of conservation biology, a "sink" is an area of habitat where, for a species under consideration, mortality exceeds production of new individuals. Under such a regime, in the absence of colonization, the local population will eventually become extinct. However, if the habitat continues to attract dispersing individuals which would otherwise successfully reproduce

[26] Pollak, Daniel 2001, "The Future of Habitat Conservation? The NCCP Experience in Southern California", published by the California Research Bureau, California State Library and dated June 2001.

elsewhere, then the habitat may be actually damaging to the species in a regional context. Conversely, if reproduction occurs here that would not occur otherwise, then even if the reproduction is less than replacement level, the site is having a positive influence. Since we cannot determine which of these alternatives is true, the sink question is totally dependent upon assumptions about unknown conditions. In addition, the site may be functioning as a stepping-stone connecting other habitat areas. If the Marblehead CSS actually is acting as a regional "sink," then it may be an "attractive nuisance" for gnatcatchers and its role as ESHA by nature of its being valuable habitat may be less sure unless it provides valuable functions for other species. Unfortunately, the applicant has only provided data consisting of simple observations of gnatcatcher presence and habitat use and the physical descriptions of the site and its biota. The data necessary to address whether CSS on the project site is a regional sink would, at minimum, require a multi-year study of the reproductive success of banded birds, which would also allow one to assess immigration and emigration. These data are not available. However, as noted above, the project site has been occupied by at least 2-3 pairs of gnatcatchers over at least the past 10 years. In addition, recent data indicates that at least 10 fledglings were hatched in 2001. Furthermore, as will be discussed in more detail below, the project site is within the dispersal distance of other habitat in the region to which the fledglings could disperse. This information suggests that the site is presently good breeding habitat and contradicts the idea that the site serves as an ecological sink for the gnatcatcher. In the absence of convincing data and expert argument to the contrary, the Commission finds that there are no data submitted to the Commission that suggests that the project site is acting as an ecological sink that is detrimental to California gnatcatcher. Therefore, the Commission rejects the argument that the CSS on the project site should not be considered ESHA because the site may be an ecological sink.

Rather than an ecological sink, the Commission finds that the CSS on the project site appears to be part of a functioning metapopulation of the coastal California gnatcatcher. The project site does contain CSS habitat that is fragmented and isolated –to a certain degree- from other larger contiguous stands of CSS habitat that are occupied by larger numbers of individual gnatcatchers. However, the gnatcatcher has rather impressive dispersal abilities. The data indicate[27] that the average dispersal distance for banded fledglings in urban fragmented habitat (Palos Verdes Peninsula) is 1.6 miles and that many of the fledglings go farther than this, the recorded record being 13 miles[28]. With this kind of dispersal, the project site would be accessible from Camp Pendleton (approximately three miles south), and even Dana Point (approximately five miles north), and there is much intervening open space, parkland and canyons scattered throughout the area where coastal sage scrub could serve as stepping stone habitat. It seems likely that gnatcatcher dispersal ability is greater than recognized, since the observed dispersal is to some extent dependent on the fragmentation in an area, and the gnatcatchers tend to disperse until a suitable site is found. If sites are farther apart, they probably can and will disperse farther. While there is certainly some limit to this ability, there is evidence that the gnatcatcher is not very sensitive to habitat fragmentation, and it has been labeled 'fragmentation insensitive'[29]. Accordingly, in addition to being a breeding site, the project site could serve as a stepping-stone in a larger scale metapopulation spatial structure.

Also, metapopulations of gnatcatchers have somehow persisted in very isolated collections of fragments throughout southern California for 50-75 years (since serious fragmentation began). For example, a population at Palos Verdes in Los Angeles County, while at high risk of extinction, has persisted for many decades in the face of serious fragmentation and apparent

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[27] Akcakaya, R. and J. L. Atwood. 1997. A habitat-based metapopulation model of the California gnatcatcher. Conserv. Biol. 11:422-434.

[28] Atwood, J. L., S. H. Tsai, C. H. Reynolds, J. C. Luttrell and M. R. Fugagli. 1998(a). Distribution and population size of California gnatcatchers on the Palos Verdes Peninsula, 1993-1997. Western Birds. 29:340-350.

[29] Bolger, D. T., T. A. Scott and J. T. Rotenberry. 1997. Breeding bird abundance in an urbanizing landscape in coastal Southern California. Conserv. Biol. 11:406-421.

isolation[30]. The observation of gnatcatcher persistence in fragmented urban habitat suggests that this species is not as extinction prone as some[31] believe. The precautionary principle requires that fragments of CSS habitat should not be eliminated as useless or detrimental to the gnatcatcher species without additional evidence. These habitat patches appear to be functioning as important connecting links and stepping stones in a larger spatial metapopulation structure that is not fully understood.

The project site is performing a significant ecological function for a federally threatened species, and as such contains environmentally sensitive habitat under the Coastal Act. However, due to several factors discussed below, not all of the CSS on the project site is ESHA. Furthermore, some non-CSS habitat areas (including existing non-native vegetation communities) would be considered ESHA. Factors determining the location of the ESHA include gnatcatcher nesting preferences, present and historical patterns of use by gnatcatcher, contiguity of habitat, and the presence of corridors for habitat connectivity and foraging areas. In addition, while some areas would not be identified as being ESHA, there are some areas that are necessary to leave substantially undeveloped in order to protect the ESHA adjacent to it.

Observations indicate that the California gnatcatcher prefer to nest in CSS dominated by California sagebrush (Artemisia californica)[32], with only occasional nesting in other types of habitat[33]. Of the 14 acres of CSS vegetation in the coastal zone on the project site, there are approximately 1.84 acres of sagebrush-dominated CSS. As expected, gnatcatcher at the project site are observed to nest in this sagebrush dominated habitat. Other CSS vegetation types are present, however, the bulk of the remaining scrub is dominated by saltbush ('saltbush scrub') that is known to be less preferred habitat for gnatcatcher nesting[34].

The patches of sagebrush-dominated CSS are spread throughout the various drainages and canyons on the project site. Sagebrush dominated patches are located within drainage B toward the bluff, within the western canyon, and within Marblehead Canyon at a spur and in some locations toward the centerline of the canyon. Except for two locations, gnatcatchers have been observed to utilize these sagebrush scrub patches. Due to the gnatcatchers preference to nest in these areas, the Commission finds that these vegetation patches, where gnatcatcher have been observed, are especially valuable habitat areas, and thus, are ESHA (Exhibit 19a).

While part of the ESHA designation can be made based on a vegetation type, such as sagebrush scrub, other parts of the designation require consideration of present and historical patterns of use by gnatcatcher, the contiguity of the habitat with other areas of habitat, and the presence of corridors for habitat connectivity and foraging areas. On the one hand, there are patches of native vegetation that may be defined as CSS and that may occasionally be used by gnatcatcher for foraging but are not preferred for nesting and are disjointed from core habitat areas. Such vegetation patches would not be ESHA. On the other hand, there are native and non-native vegetation patches that are contiguous with or part of core habitat areas and/or that provide connectivity between core habitat areas. Such areas would be considered ESHA. Furthermore, there are some habitat areas where development must be strictly controlled in order to protect the habitat adjacent to it (Exhibit 19a).

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[30] Atwood et al. loc. cit.

[31] Akcakaya, R. and J. L. Atwood. 1997. loc. cit.

[32] Atwood, J., and D. R. Bontrager. 2001. California gnatcatcher (*Polioptila californica*). *In* The Birds of North America, No. 574, (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA., 32pp.

[33] Bontrager,D. R., A. L. Gorospe and D. K. Kamada. 1995. Unpubl. Report. 1995 breeding biology of the California Gnatcatcher in the San Joaquin Hills, Orange County, California. The Superpark Project, Laguna Beach, CA.

[34] Atwood, J., and D. R. Bontrager. 2001, loc. cit.

On the project site, core habitat areas include the bluffs; the native vegetation within drainage A and seaward portions of drainage B; the native and non-native vegetated as well as unvegetated areas within the deeper, seaward-most portions of the western canyon; the contiguous patches of native and non-native habitat within the main body of Marblehead Canyon and the east branch of Marblehead Canyon and other areas of the site which have been documented to be utilized by California gnatcatcher. These core habitat areas would be considered ESHA (Exhibit 19a).

In addition to the core habitat areas, there are unvegetated and vegetated areas on the project site that provide connectivity between the core habitat areas. These areas are adjacent to the core habitat areas where it is critical to minimize edge effects. If development such as houses and fuel modification, as well as people, dogs and notably domestic cats, are placed between these core habitat areas or are allowed to project into a core habitat area and/or otherwise overlap known gnatcatcher breeding territories or fragment them, the impacts would probably extirpate the gnatcatchers from the site. For instance, between Marblehead Canyon and the western canyon there is a smaller drainage described elsewhere in these findings as the trident canyon. The trident canyon has some native perennial grassland within its deeper areas, but mostly golden bush/annual grassland and non-native pine woodland following a fire that occurred there a few years ago. As noted above, the applicant and the Commission would identify the native perennial grassland as ESHA (Exhibit 19a). In addition, the drainage itself and some more level areas serve as a connecting area and foraging habitat between the two existing California gnatcatcher territories. Similarly, there is a spit of land at the confluence of the east branch of Marblehead Canyon and the main body of the Marblehead Canyon that is essential to maintaining the core body of habitat within Marblehead Canyon. Because of the need to maintain contiguous large habitat zones that are free of significant disturbance (i.e. reduce the perimeter to area ratio within critical areas), the location of these areas between gnatcatcher territories, and the impact that development of these areas presents, the Commission finds that these important connections between the core habitat areas must remain free of significant development in order to protect the adjacent ESHA from significant habitat disruption.

There are some CSS vegetation patches and portions of drainages that are outside of core habitat areas and connective corridors that the Commission would not identify as upland ESHA. For instance, the shallow, inland portions of the western canyon, while containing some CSS vegetation (coyote bush scrub in this case), are not essential to breeding or foraging for gnatcatcher and are outside of connective corridors. Similarly, there are patches of CSS vegetation within the shallow, inland portions of the east branch of Marblehead Canyon and within a spur off the east flank of the main body of Marblehead Canyon that are distant from the core habitat areas and that are outside of connective corridors. Finally, there are some stands of degraded saltbush scrub that have grown along the slope of the soil stockpile located roughly in the center of the project site, that is outside of the canyons and drainages and outside of connective corridors. The Commission excludes these areas from the ESHA designation.

Based on the evidence currently available to the Commission, the Commission finds that certain areas of coastal sage scrub habitat and adjacent use areas by the gnatcatcher at the subject site are ESHA (Exhibit 19a). Since the coastal sage scrub on the site is ESHA, Section 30240 of the Coastal Act places important restrictions on the use of these areas.

c. Coastal Sage Scrub – Prior Determination Regarding ESHA (CDP Application 5-99-260)

As noted above, the Commission's determination regarding CSS ESHA at the project site has been refined as compared to the determination crafted previously when development of the site was being considered under Coastal Development Permit Application 5-99-260. It must be noted that CDP Application 5-99-260 was withdrawn by the applicant prior to any formal action made by the Commission. Accordingly, no actual ESHA determination was adopted by the Commission relative to the site under CDP Application 5-99-260.

Previously, Commission staff had indicated that, "...coastal sage scrub and associated habitats [at the project site], be considered as environmentally sensitive habitat...". A plain reading of this statement suggests that all of the CSS on the project site would be considered ESHA. However, at the time of this statement there was some debate regarding the extent of the CSS that would be delineated as ESHA. At issue were the applicants' assertions that the site was not ESHA because the project site should be considered an ecological sink, the resource agencies had omitted the site from their critical habitat designation and the resource agencies had approved a 4d take authorization which stated that the site was not essential to the conservation of the species. As noted above, the Commission has rejected these arguments. Further analysis, also discussed above, has more clearly defined the boundaries of the ESHA.

4. Cumulative Impacts on Coastal Resources

Although not all the vegetated habitats at the Marblehead site ought to be categorized as "ESHA," they all do provide habitat value and some provide quite significant value. For example, the foraging value of annual grasslands and open scrub to raptors is well known and important. Coastal sage scrub, whether ESHA or not, does provide valuable habitat to a variety of wildlife on the project site, as noted above. These habitat areas also serve as important buffer areas for wetlands on the project site. These habitat areas also provide corridors for key predators, such as the coyote, whose presence is essential to the persistence of gnatcatcher on the project site. Under Section 30250 of the Coastal Act, where development, as proposed, would have significant adverse effects, either individually or cumulatively, to coastal resources, steps must be taken to re-locate the development so as to eliminate those effects, or at least to minimize those effects such that they are not significant.

5. Impacts

The proposed project would involve the mass grading of the site and result in the construction of structures, ornamental landscaping and habitat revegetation on the subject site. In addition, this application seeks to make permanent the emergency grading undertaken in 1990. The proposed development would result in impacts to biological resources on the project site. In addition, the work previously undertaken in 1990 resulted in impacts to biological resources (Exhibit 17).

The following table details the acreage of each habitat type that is present (based on the most recent surveys), the quantity of habitat that would be removed for the proposed development (Exhibit 16) and the quantity of habitat preserved and mitigated (i.e. restored and/or created) (Exhibit 18):

PLANT COMMUNITY		EXISTING HABITAT	IMPACTED	PRESERVED	MITIGATED ON-SITE	MITIGATED OFF-SITE[35]	NET
Coastal Sage Scrub	Coastal Bluff Scrub (CBS)	1.83	0.09	1.74	Qty. Not Specified – See Total Below		
	Sagebrush Scrub (SS)	1.84	0.03	1.81	Qty. Not Specified – See Total Below		
	Coyote Bush Scrub (CS)	3.70	1.20	2.50	Qty. Not Specified – See Total Below		
	Saltbush Scrub (SBS)	3.20	1.91	1.29	Qty. Not Specified – See Total Below		
	Southern Willow Scrub (SWS)	.07	0	.07	Qty. Not Specified – See Total Below		
	Coyote Bush/Saltbush (CS/SBS)	1.56	.03	1.53	Qty. Not Specified – See Total Below		
	Mixed Scrub (MS)	0.68	0.02	0.66	Qty. Not Specified – See Total Below		
	Mixed Scrub/Annual Grassland (MS/AG)	0.82	0	0.82	Qty. Not Specified – See Total Below		
Coastal Sage Scrub - Total	CBS/SS/CS/SBS/MS/SWS[36]			10.42 (total from above)	60.87	1.63	72.92 + 2.58 in fuel mod zones and utility easements)
Grassland	Needlegrass Grasslands	0.62	0	0.62	4.49	0	5.14
Marsh	Alkali Marsh (AM)	3.44	.02[37]	3.42	0	0	3.42
	Alkali Meadows (AMW)	0.59	0	0.59	0.10	0	0.69
	Seasonal Wetlands	0.21	0	0.21	0	0	.21
Riparian	Mulefat (MF)	0.89	0	0.89	2.87	0	3.76
	Willow	0.04	0	0.04	0	0	0.04
Stormwater Basins	AM/AMW/MF	0	0	0	1.76	0	1.76
Totals		19.49	3.28	16.19	70.09	1.6	90.52

In addition to the development now proposed, implementation of the emergency Phase I grading project resulted in the grading of approximately 1,900 linear feet of coastal bluffs and the disruption of habitat up to 650 feet inland. Earth removed during the grading operation was stockpiled in the central portion of the site, burying approximately 30 acres of habitat in the coastal zone. According to the 1991 biological assessment prepared by Roberts, this development resulted in adverse impacts to several plant communities including annual and native grasslands, coastal bluff scrub, Blochman's dudleya or coastal bluff scrub, and wetlands. These impacts are as follows: annual grassland – 47 acres impacted; needlegrass grassland -

[35] 'Off-site' in this context means upon property that is not owned by the applicant but is immediately adjacent to their property and an inseparable portion of the overall development plan
[36] Breakdown of restoration/creation by vegetation community not provided by applicant
[37] Shading impact only. No wetland fill impacts.

2.5 acres impacted; coastal bluff scrub - 3.0 acres impacted; Blochman's dudleya - 3.5 acres or 6,500 to 8,000 plants impacted; and wetlands – 0.1 acres impacted.

As described above, the project site's plant communities provide valuable habitat for a wide variety of animal species. The habitats provide food and water, shelter, sites for breeding and materials for nest building. The grading and construction of structures, as proposed, necessitates the removal of vegetation resulting in the loss of acres of habitat for wildlife. Small, slow-moving, or burrowing animals may be killed as a result of the grading operations. Some animals may be able to relocate to other areas, but competition with species already living there may preclude the long-term survival of displaced animals.

As noted in the project description, the applicant is proposing mitigation for the proposed impacts. The mitigation plan is described in the proposed HMP. The HMP proposes to preserve in place a total of 10.42 acres of various types of scrub vegetation and to restore 60.87 acres of coastal sage scrub on the un-graded and proposed-to-be-graded slopes of Marblehead Canyon and the western canyon; within the preserved area of the trident canyon; within the proposed park areas; upon proposed-to-be-graded slopes between the proposed commercial development and Avenida Pico, and upon the un-graded and already graded blufftop/bluff face along El Camino Real. An additional, 1.64 acres of coastal sage scrub restoration would occur within the City-owned right-of-way along El Camino Real at the toe of the bluff. The applicant is also proposing to plant 4.49 acres of needlegrass which would provide habitat and provide a fuel modification area. Furthermore, 0.02 acres of shading impact to wetlands would be off-set with 0.09 acres of wetlands restored within Marblehead Canyon and the western canyon. Some additional wetland habitat would be created within the proposed storm detention basins.

In addition to mitigation measures, the FEIR considered seven alternatives to the originally proposed version of the Marblehead project[38]. These alternatives include:

1. No Project Alternative
2. No Development
3. Alternative Land Use
4. Residential Alternative
5. Reduced Site Coverage with Wetland Avoidance
6. Reduced Commercial Development with Wetland Avoidance
7. Proposed Project on an Alternative Site

The FEIR also considered project design alternatives relating to:

- Alternative design and alignments of Avenida Vista Hermosa
- Avoidance of sage scrub habitat on-site

Several of the alternatives identified above would result in lesser or no direct impacts upon biological resources. For instance, the no development alternative would cause the site to remain vacant. According to the FEIR, the no project alternative would result in the elimination of public access and recreation benefits offered by the proposed project and other alternatives including a park and trails. However, the no project alternative avoids all impacts upon environmental resources.

[38] The applicant originally submitted their application for a coastal development permit in 1999. At that time, the project submitted was the same project analyzed as the "Proposed Project" in the FEIR. However, in 2000, the applicant revised their project and selected a variation of Alternative 5 (Reduced Site Coverage with Wetlands Avoidance). Therefore, the "Proposed Project" discussed in the FEIR is not the project that is the subject of this coastal development permit application. Rather, the project now proposed is essentially Alternative 5 discussed in the FEIR.

The FEIR also analyzed a project alternative which would avoid impacts to coastal sage scrub and the California gnatcatcher. However, the FEIR states that this avoidance alternative was rejected in favor of a combination of on-site and off-site mitigation. The rationale stated by the FEIR for preferring this mitigation package was largely founded on the premise that the South Subregion Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) which is currently being drafted would provide a cumulative regional conservation approach for the California gnatcatcher that would be superior to protecting the resources on the Marblehead project site in place. As noted above, the Commission has found that the fact than an NCCP/HCP is being developed does not preclude the designation of certain habitats on the project site to be ESHA or the application of the Coastal Act's ESHA-protective standards to those areas. Furthermore, contrary to the determination made in the FEIR, the Commission has found that on-site preservation of the coastal sage scrub community to the maximum extent feasible should be made in order that stepping stone habitat for the California gnatcatcher is provided and such that the metapopulation of California gnatcatcher can continue to function in the region.

6. Analysis

a. Section 30240 (a) and (b)

Typically, to ensure compliance with Section 30240 of the Coastal Act, development (aside from resource dependent uses) must be located outside of all environmentally sensitive habitat areas and must not cause significant disruption of the habitat values within those areas. Further, development adjacent to an ESHA must be sited to prevent impacts to the ESHA that would significantly degrade those areas, in part through the provision of a setback or buffer between the ESHA and the development. That buffer must be of an adequate size to prevent impacts that would degrade the resources. The width of such buffers would vary depending on the type of ESHA and on the type of development, topography of the site, and the sensitivity of the resources to the particular kind of disturbance.

The project site contains various sensitive and valuable habitat areas, including wetlands, Blochman's dudleya, native perennial grassland and California gnatcatcher habitat including coastal sage scrub and connecting corridors. The applicant is proposing to retain a significant portion of this existing sensitive habitat. In addition, the applicant is proposing a valuable restoration project that would expand native upland vegetation on the site from about 14 acres to about 70 acres. Nevertheless, the project proposes direct impacts upon habitat that is ESHA and proposes to place significant development within ESHA buffers and connective corridors. These impacts would have significant adverse impacts to the biological resources on the site and on the habitat values in the areas, and such impacts cannot be authorized under Section 30240 of the Coastal Act.

Section 30240(a) of the Coastal Act requires that environmentally sensitive habitat areas be protected against any significant disruption of habitat values and that only uses dependent on those resources can be allowed within ESHA. The proposed project contains components that are not consistent with this policy. In particular, California gnatcatcher habitat including adjacent and connective habitat would be adversely impacted. For instance, at drainage B, the applicant is proposing the construction of a road that would directly impact ESHA within drainage B. In addition, the applicant is proposing grading and construction of houses and a trail within ESHA at Spur E2 located at the west side of the main stem of Marblehead canyon. These uses within the ESHAs would not be restricted to those which are dependent on the resources. Housing, roads and other infrastructure would be located within the areas now occupied by the ESHAs. These uses are not resource dependent.

Additionally, Section 30240(b) of the Coastal Act requires that development in areas adjacent to ESHA be sited and designed to prevent impacts that would significantly degrade these areas, and that are compatible with the continuance of these habitat areas. There would be grading and construction of structures within buffers necessary to protect the ESHA identified above. Roads and houses would also be constructed within buffer areas necessary to protect the ESHA within the western canyon. Furthermore, there is an important buffer area and connective habitat between the western canyon and Marblehead canyon that includes the trident canyon. Development within this area would impact the gnatcatcher and probably extirpate them from the adjacent habitat. In this case, the applicant is proposing to eliminate the ESHA and is proposing development activities, such as the construction of houses and roads within and adjacent to the ESHA that are not compatible with the continuance of the habitat areas. Therefore, the ESHA is not protected and results in the loss of the ESHA. Therefore, the development proposed is not consistent with Section 30240(b)

As described above, the applicant is proposing mitigation such as the planting of coastal sage scrub habitat. In addition, the applicant is proposing the establishment of certain funding mechanisms for the management of mitigation areas. However, Section 30240 of the Coastal Act does not provide for such measures in lieu of protecting existing ESHA resources. A recent Court of Appeal decision [Bolsa Chica Land Trust v. Superior Court, 71 Cal. App. 4th 493, 83 Cal Rptr. 2d 850 (1999)] speaks to the issue of mitigating the removal of ESHA through development by "creating" new habitat areas elsewhere. This case was regarding a Commission action approving an LCP for the Bolsa Chica area in Orange County. The Commission determined that a eucalyptus grove that serves as roosting habitat for raptors qualified as ESHA within the meaning of Section 30107.5 of the Coastal Act. The Commission found that residential development was permissible within the ESHA under Section 30240 because the eucalyptus grove was found to be in decline and because the LCP required an alternate raptor habitat be developed in a different area.

In the decision, the Court held the following:

> *The Coastal Act does not permit destruction of an environmentally sensitive habitat area [ESHA] simply because the destruction is mitigated offsite. At the very least, there must be some showing that the destruction is needed to serve some other environmental or economic interest recognized by the act.* 83 Cal.Rptr.2d at 853.

The Court also said:

> *[T]he language of section 30240 does not permit a process by which the habitat values of an ESHA can be isolated and then recreated in another location. Rather, a literal reading of the statute protects the area of an ESHA from uses which threaten the habitat values which exist in the ESHA. Importantly, while the obvious goal of section 30240 is to protect habitat values, the express terms of the statute do not provide that protection by treating those values as intangibles which can be moved from place to place to suit the needs of development. Rather, the terms of the statute protect habitat values by placing strict limits carefully controlling the manner uses in the area around the ESHA are developed.* 83 Cal.Rptr. 2d at 858.

Thus, without a showing that adverse impacts to ESHA are necessary to accomplish some other overriding Chapter 3 objective, the requirements of Section 30240 of the Coastal Act cannot be met by destroying, removing or significantly disrupting an ESHA and attempting to create or restore commensurate habitat elsewhere. Habitat for California gnatcatcher is located within Drainages A and B, the western canyon, the trident canyon, Marblehead Canyon and including connective corridors. In order to protect these resources, neither grading, nor

construction of houses, roads, or parks or fuel modification could occur within the habitat. However, these habitat areas would be partially destroyed as a result of the development. Clearly, there is no overriding Chapter 3 objective that prioritizes the construction of houses, commercial development, or roads in the coastal zone or the establishment of fuel modification zones within sensitive habitat. Some may argue that the construction of parks does address a Chapter 3 objective. However, there are alternative locations for the parks that would not result in impacts to ESHA. Therefore, the destruction of the ESHA for the proposed development could not be justified under another Chapter 3 objective. Therefore, in this case, since there has been no showing that there is an overriding Chapter 3 objective which can only be implemented through the proposed project's destruction of ESHA, the proposed project cannot be approved as submitted because it proposes the destruction of ESHA on the Marblehead site, in violation of Section 30240 of the Coastal Act as interpreted by the Court of Appeal in Bolsa Chica.

Because elimination of adverse impacts to ESHA would require significant re-design of the proposed project, the project cannot appropriately be conditioned in such a way that it could be found consistent with Section 30240 of the Coastal Act. As discussed in the "Alternatives" section of these findings, however, feasible alternatives are available that would allow significant development to occur on the site without impacting ESHA in a manner inconsistent with the Coastal Act.

Also, the proposed application requests authorization to make permanent the impacts to coastal bluff scrub and native grasslands that occurred during the emergency grading. These habitat areas may be considered ESHA, thus their destruction would not be consistent with Section 30240 of the Coastal Act. Nevertheless, other factors could cause the Commission to determine the development was approvable because it was necessary to protect the existing roadway and to maintain public access along a major public thoroughfare. Additional analyses would be required to make a final determination regarding this issue.

In addition to protecting the ESHA itself, Section 30240 of the Coastal Act requires that development adjacent to ESHA be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat areas. Buffers and development setbacks protect biological productivity by providing the horizontal spatial separation necessary to preserve habitat values and transitional terrestrial habitat area. Furthermore, buffers may sometimes allow limited human use such as passive recreation, and minor development such as trails and fences when it will not significantly affect resource values. Buffer areas are not in themselves a part of the environmentally sensitive habitat area to be protected. Spatial separation minimizes the adverse effects of human use and urban development on wildlife habitat value through physical partitioning. The greater the spatial separation, the greater the protection afforded the biological values that are at risk. Buffers may also provide ecological functions essential for species in the ESHA. The applicant has proposed the establishment of 100 foot wide buffers between wetlands and adjacent development. However, the applicant has not identified any buffers for the protection of terrestrial ESHA.

The primary impact to ESHA on the Marblehead site is to the habitat areas that support the coastal California gnatcatcher. These habitats are typically coastal bluff scrub, southern cactus scrub, sagebrush scrub and coyote brush scrub with some overlap into adjacent areas where observations have indicated historic use patterns or occupancy. Accordingly, these areas are mapped as ESHA. In order to protect these habitat areas, the Commission requires, at a minimum, a 100-foot buffer. In some cases the buffer would be required to be larger. For instance, where development would result in fuel modification requirements, the Commission requires that the development be setback a sufficient distance from the ESHA in order that no

fuel modification of any type occur within the ESHA. As will be described more fully below, a limited type of fuel modification may be allowed within setback/buffer areas; however, no fuel modification within the ESHA itself would be allowed.

In some cases, the area adjacent to the ESHA that must be protected cannot be described simply in terms of a linear setback or buffer. Rather, the areas are corridors between two areas of ESHA where only limited types of development that are consistent with the protection of ESHA would be allowed. For instance, significant development within the connective corridor between Marblehead Canyon and the western canyon, that includes the trident canyon, must be avoided in order to protect the adjacent ESHA. Similarly, the area between main and east branches of Marblehead Canyon must be protected, as is proposed by the applicant. As explained above, there would be significant adverse impacts to gnatcatcher habitat if development is allowed to occur in these areas, significantly degrading the areas.

The applicant has proposed to create CSS habitat in order to mitigate impacts to CSS and California gnatcatcher that would be caused by the proposed development. As noted above, the Commission has found that sensitive vegetation communities including Blochman's dudleya habitat, coastal bluff scrub and habitat for California gnatcatcher would be considered ESHA. Pursuant to Section 30240(a), impacts to ESHA must be avoided, rather than mitigated. However, even with avoidance of the ESHA, certain areas of non-ESHA CSS and other non-ESHA habitat areas could be impacted under the proposed project. Measures to minimize the significant cumulative adverse impacts upon coastal resources may need to be undertaken on the site for purposes of compliance with Section 30250 of the Coastal Act or as mitigation to satisfy the requirements of other regulatory authorities (e.g. USFWS or CDFG). In addition, the applicant may wish to re-vegetate certain areas for aesthetic or other purposes. When areas are re-vegetated adjacent to combustible structures, OCFA may have fuel modification requirements. Given these various interests, it is important to clarify the types of revegetation that the Commission would consider appropriate and the types that would not be acceptable. In addition, it is important to clarify the types of re-vegetation that would be allowed within ESHA and adjacent to ESHA.

As noted elsewhere, the applicant has proposed a specific vegetation palette for use within fuel modification/monitoring zones. The applicant has intended to utilize these revegetated areas, in part, as mitigation for habitat impacts. These areas would be replanted with a plant palette that excludes California sagebrush (Artemisia californica) and California buckwheat (Eriogonum fasciculatum). These two plant species are preferred by California gnatcatcher. Atwood and Bontrager[39] summarize the data on California gnatcatcher preference for vegetation dominated or co-dominated by *Artemisia californica* as follows:

> "Plant species composition may vary substantially among territories within a local geographic area, but California sagebrush (Artemisia californica) is usually dominant or co-dominant: Palos Verdes Peninsula, Los Angeles Co., 86% of 54 territories dominated or co-dominated by California sagebrush[40]; Irvine, Orange Co., 85% (n = 149)[41]; Rancho Mission Viejo, Orange Co., 85% (n = 12)[42]; Camp Pendleton, San Diego Co., 73% (n = 177)[43]. In southwest Riverside Co., average relative dominance by California sagebrush

[39] Atwood, J., and D. R. Bontrager. 2001, loc. cit.

[40] Atwood, J., S. H. Tsai, C. A. Reynolds and M. R. Fugagli. 1998. Distribution and population size of the California gnatcatchers on the Palos Verdes peninsula, 1993-1997. West. Birds. 29:340-350.

[41] Sweetwater Environmental Biologists. 1994. Unpubl. Report. Orange County Parks Coastal California Gnatcatcher and San Diego Cactus Wren Survey Report. Prepared for County of Orange, Environ. Manage. Agency, Santa Ana, CA, 13 April, 1994.

[42] Bontrager,D. R., A. L. Gorospe and D. K. Kamada. 1995. Unpubl. Report. 1995 breeding biology of the California Gnatcatcher in the San Joaquin Hills, Orange County, California. The Superpark Project, Laguna Beach, CA.

[43] Atwood, J. L. and D. R. Bontrager. (book in prep.) (unpubl. Manusript).

and California buckwheat (Eriogonum fasciculatum) combined in 14 territories was 92%[44]."

Therefore, it can be said with a high degree of confidence that, throughout this region, the California gnatcatcher has a definite affinity for making its territory in coastal scrub plant associations where California sagebrush is either dominant or co-dominant. The preference for sagebrush (*Artemisia californica*) scrub may be food-related for this insectivorous bird. Burger et al[45] noted that leaf- and plant-hoppers (Homoptera) and spiders predominate in the gnatcatcher diet, and Ballmer[46] observed that these groups also dominate the arthropod fauna in *Artemisia* (sagebrush) scrub. Therefore, while the fuel modification palette may contain other vegetation that may be utilized by California gnatcatcher, preference would be given to habitat restoration that would include buckwheat and sagebrush because any areas that would exclude these two important plant species would provide habitat that is sub-optimal in terms of use by gnatcatcher. In summary, the fuel modification areas have an artificial plant palette that is not optimal for gnatcatcher, and while such areas would probably be better than highly degraded habitat, those areas are not the sagebrush-dominated habitat preferred by gnatcatchers. While these fuel-modified areas do constitute some restoration value, it is reduced in nature from normal sagebrush scrub habitat.

Under most circumstances a 100-foot buffer between all development and ESHA is necessary to protect gnatcatcher and sensitive vegetation communities. In some cases, these buffers may need to be larger to preserve connectivity and prevent adverse impacts to adjacent ESHA. In other cases, a smaller buffer may be appropriate. Uses within these buffers would be strictly controlled. For instance, day use trails or passive park with native vegetation would be allowed, where no less environmentally damaging alternatives were available, provided that night lighting would be avoided. These trails and park areas would need to be located as far away from the ESHA as possible at the outer edges of the buffer areas. In addition, habitat restoration would be allowed within the ESHA and buffer areas. Fuel modified native plant restoration (e.g. cactus dominated scrub without sagebrush or buckwheat) could be allowed within buffer areas, but not within the ESHA itself. Finally, residential and commercial development, roads and other infrastructure, active parks and other higher intensity uses would not be allowed within ESHA or ESHA buffers, setbacks or corridors.

b. Section 30250

The proposed project involves a property subdivision and construction of new residential and commercial development. Section 30250 of the Coastal Act requires that such development occur where it would not have significant adverse effects, either individually or cumulatively on coastal resources.

The proposed project would result in impacts to coastal sage scrub and habitat for California gnatcatcher. Notwithstanding the consistency or inconsistency of these impacts with Section 30240 of the Coastal Act, such impacts should be minimized in order to assure that there are not significant adverse effects on coastal resources. Impacts associated with habitat connectivity, edge effects and the need to prevent high intensity development adjacent to sensitive habitat areas, and the change in intensity of use of the site are most significant at the project site.

There are two kinds of local connectivity issues at the Marblehead site: 1) direct issues such as

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[44] Braden, G and S. Powell. 1994. Unpubl. Report. Draft: Breeding habitat use by *Polioptila californica* in western Riverside County. Prepared for The Metropolitan Water District by USFWS, Carlsbad, CA; Jan. 1994.

[45] Burger, J. C. M. A. Patten, J. T. Rotenberry and R. A. Redak. 1999. Foraging ecology of the California gnatcatcher deduced from fecal samples. Oecologia. 120:304-310.

[46] Ballmer, G. R. 1995. What's bugging coastal sage scrub? Fremontia 23:17-26.

fragmentation of and intensity of uses adjacent to gnatcatcher habitat use areas (e.g. the trident canyon and area between the main and east branches of Marblehead Canyon), and 2) general fragmentation issues such as raptor foraging, coyote access, and dispersal movement of any wildlife across the larger areas of the site. The first of these relates to the adjacency impacts under Section 30240(b) of the Coastal Act. As discussed above, higher intensity development such as housing, commercial development, active parks, and other infrastructure would not be allowable within these areas. The second type of fragmentation relates to individual or cumulative adverse impacts to coastal resources. Development must be designed with measures to ensure that there are no individual or cumulative significant adverse impacts. For instance, the presence of the proposed 314 residential units as well as the commercial development and other uses will make the site less available for wildlife and will block movement and use by such valuable animals as the coyote and several species of raptors not to mention the gnatcatcher. Presently, these and other wildlife have potential use of the entire 201 acre site. The proposed development would narrow this use area to approximately 108 acres. In addition to narrowing the area usable by wildlife, the project would significantly intensify use of the site from an open space area with low levels of human activity to residential and commercial uses as well as passive and active recreational areas that have high levels of human activity. This change in intensity of use of the site would introduce significant vectors of disturbance for wildlife. Impacts from the loss of habitat linkages due to physical impediments (e.g. houses, fences and roads), noise, light, domestic animals, and other human activity will intensify at the site. Measures to ensure the development does not have a significant individual or cumulative adverse impact on coastal resources would include maximizing the quantity of open space provided on the site and improving the quality and function of the wildlife habitat that will remain on the site. Recognizing the need to address individual and cumulative adverse impacts, the U.S. Fish and Wildlife Service and the California Department of Fish and Game have required the applicant to avoid impacts to existing patches of CSS to the maximum extent feasible, as well as requiring the applicant to restore about 56 acres of habitat (49 acres of which are in the coastal zone). Similarly, the Commission would require that the individual and cumulative adverse impacts that would be associated with the change in intensity of use of the site could be avoided by maximizing the quantity of open space on the site, minimizing habitat fragmentation and encroachment of high intensity development into and between sensitive habitat areas and improving the overall quality of habitat that would remain on the site in the developed condition.

Also, in order for any of the natural habitats to maintain their existing biodiversity, it is important to maintain coyotes in the system. In the absence of coyotes, these habitats would be subject to heavy predation from domestic and feral cats and other small predators causing avian diversity to plummet.[47] The applicant's biological studies indicate that coyotes forage but do not den on the project site. Rather the coyote den in open space areas located inland of Interstate 5 and occasionally forage on the project site. The coyote travel to the site via several routes, including a nearby golf course which flanks both sides of the freeway and has a freeway underpass. Coyote have also been found to use the Avenida Vista Hermosa freeway overpass and the freeway underpass at Avenida Pico. The coyote access the project site at multiple locations. If coyotes are to remain in the system, the various habitats on site must be connected with open space corridors and access to these habitat areas must remain unobstructed such that coyote can continue to access the site and circulate through it. Since coyote that are present in urban settings tend to be nocturnal, lighting from the developed areas must be strictly controlled such that the open space areas and corridors for circulation remain dark spaces.

Marblehead is currently used as a foraging area for several species of birds of prey. The EIR

[47] Crooks, K.R. and M.E. Soulé. 1999. Mesopredator release and avifaunal extinctions in a fragmented system. Nature 400:563-566.

documented the presence of northern harriers, Cooper's hawks, red-tailed hawks, and American kestrels.[48] During an agency visit in April, 2000, Commission staff observed a white-tailed kite foraging and a loggerhead shrike perched on a pine snag. Also a winter period bird survey submitted by the applicant documents the presence of Sharp-shinned Hawk, Red-shouldered Hawk, Red-tailed Hawk, American Kestrel, and Burrowing Owl. There are undoubtedly other diurnal and nocturnal avian predators that forage on the site. Most recently, the applicant has submitted a 'breeding season survey' to document whether raptors are nesting on the project site. This survey included five site visits between May and July 2001. The study indicates that Cooper's hawk, red-tailed hawk, and American kestrel were observed to forage at the site . However, the survey did not detect any occupied or defended nest sites or feeding young. Therefore, the survey makes a determination that conditions at the site are not currently conducive to nesting. This may be a result of a lack of tall trees for raptor perching and nesting on the project site. However, it remains that the site is utilized as foraging area. Various biological surveys of the site have documented use of the site by a variety of raptor species. Maximizing the quantity of open space area on the site, including protecting ESHA and adjacent areas and drainages on the property and the provision of non-ESHA mitigation would protect these habitats and insure the continued presence of raptors at the site.

7. Conclusion

The proposed project results in large-scale landform alteration that eliminates and/or significantly and adversely modifies the canyons and drainages on the property. This landform alteration would impact habitat present in these canyon and drainage areas. These activities would eliminate and/or significantly disrupt and/or degrade habitat that is important to the continued viability of biological resources on the subject site including wetlands, coastal sage scrub, Blochman's dudleya, California gnatcatcher and raptor foraging habitat, among others. Such impacts are inconsistent with Section 30240 and 30250 of the Coastal Act. Impacts could be avoided by concentrating development outside of ESHA and ESHA buffers/setbacks/connectivity areas and on disturbed upland areas where habitat values are less significant. Maximizing the provision of open space and implementing habitat restoration would minimize cumulative impacts on coastal resources as required by Section 30250 of the Coastal Act. Throughout these findings, the Commission has identified the general areas where more intense development may occur and those areas where such development should be avoided. However, there would be too many alternative ways of avoiding the impacts to dictate a specific method. Therefore, the Commission is denying the proposed project on the grounds that it is inconsistent with Section 30240 and 30250 of the Coastal Act, and is providing direction as to how the development of the site may occur consistent with Coastal Act requirements.

D. WETLANDS

There are 5.13 acres of wetlands in the project area (on-site and off-site) consisting of alkali marsh, alkali meadow, seasonal wetland, and mulefat scrub. These wetland areas are not subject to tidal inundation.

Wetlands provide critical habitat, nesting sites, and foraging areas for many species, some of which are threatened or endangered. In addition, wetlands serve as natural filtering mechanisms to help remove pollutants from storm runoff before the runoff enters into streams and rivers leading to the ocean. Further, wetlands serve as natural flood retention areas.

Another critical reason for preserving, expanding, and enhancing Southern California's remaining wetlands is because of their scarcity. As much as 75% of coastal wetlands in southern California have been lost, and, statewide up to 91% of wetlands have been lost.

[48] City of San Clemente, 1998, op. cit.

The applicant has submitted a map of ESHAs that identifies the wetlands on the project site as ESHA. The Commission would concur that the wetlands on the project site constitute ESHA.

1. Direct Wetlands Impacts

Section 30121 of the Coastal Act states:

> *"Wetland" means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.*

Section 30233(a) of the Coastal Act states, in relevant part:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
>
> *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
>
> *(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
>
> *(7) Restoration purposes.*
>
> *(8) Nature study, aquaculture, or similar resource dependent activities.*

The applicant is proposing to make permanent the impacts to sensitive habitat that occurred when 1,900 linear feet of bluffs along El Camino Real was stabilized (Emergency Coastal Development Permit 5-90-274-G). The stabilization included grading the bluff face and creating compacted stabilization fills (i.e. engineered buttress fills). These activities caused impacts to

0.1 acres (4,356 square feet) of wetlands located at the mouths of the canyons/tributaries which intersect the bluff face.

Other than the direct impacts to wetlands that already occurred under the emergency grading, there are no other direct impacts to wetlands proposed in the coastal zone. However, the proposed project would result in some wetland fill impacts located outside the coastal zone. Specifically, there would be 0.55 acres of impacts to mulefat wetlands which would occur for grading to construct the commercial center. However, the remainder of wetlands located outside the coastal zone -about 1.68 acres- would be preserved. The impacts to 0.55 acres outside the coastal zone would be mitigated through the creation of 1.76 acres of wetlands and 2.87 acres of riparian scrub habitat within the wetland detention basins and basin slopes located in the coastal zone.

The proposed project would also result in impacts to 0.68 acres of ephemeral drainages on the project site. These impacts are proposed to be mitigated by the applicant through the creation of 1.76 acres of wetlands and 2.87 acres of riparian scrub habitat within the proposed storm water detention basins located in the coastal zone. According to the applicant, these ephemeral drainages are not considered wetlands under the Coastal Act. No information has been submitted to the Commission which would cause the Commission to disagree with the applicant's determination.

Emergency grading to stabilize the bluffs along El Camino Real caused the dredging of wetlands as defined in Section 30108.2 of the Coastal Act. The purpose of the impact was to stabilize the bluffs to prevent landslides and closure of El Camino Real and to assure public safety. The stabilization also allows development on the face of the bluff and at the top of the bluff, including the construction of trails, parks, roads, and single family residences. Section 30233 of the Coastal Act governs the dredging and filling of wetlands and establishes eight enumerated uses for which such impacts are allowable. Dredging and/or filling of wetlands for bluff stabilization and the construction of single family residences is not one of the allowable uses enumerated.

However, it could be argued that the work at the impacted areas was performed as part of and/or in support of an incidental public service. At the time the emergency grading was authorized, the applicant argued that the bluff stabilization was necessary for public safety and to prevent the closure of El Camino Real, a public roadway. If the Commission were to come to the conclusion that the wetland impact occurred to provide an incidental public service, the Commission would also need to make a finding that the impact was the least environmentally damaging feasible alternative. In addition, feasible mitigation measures would be required.

The bluff stabilization which occurred under the emergency permit allowed the City to re-open the existing roadway with the same quantity of traffic lanes as existed prior to the closure of the road. The bluff stabilization did not change the existing quantity of traffic lanes nor did it make possible the addition of traffic lanes. Furthermore, based upon review of the geologic information available, the Commission's geologist determined that the proposed bluff stabilization was the least environmentally damaging feasible alternative. The applicant has proposed to designate a portion of the 1.76 acres of wetlands to be created within the detention basin as mitigation to address the direct impacts to wetlands that occurred under the emergency grading. However, it is unclear whether the proposed mitigation would provide habitat that is comparable to the habitat that was lost. The Commission could find that the dredging and/or fill of wetlands that occurred under an emergency coastal development permit would be consistent with Section 30233(a)(5) of the Coastal Act provided that it finds the proposed mitigation measures to be feasible and appropriate. If the Commission were to find that the proposed mitigation is inappropriate, the Commission must deny permanent authorization for the wetlands

impacts that occurred or deny such authorization pending completion of appropriate alternative mitigation. Irrespective of the discussion above, other considerations may be taken into account by the Commission once the applicant more fully addresses the impacts to wetlands that were caused by the bluff stabilization. These additional considerations may revise the Commission's determination as to whether the impacts to wetlands are approvable under the Coastal Act. At this time, since the Commission is not approving the proposal that is central to this application, the Commission also will not approve this retroactive authorization to make the emergency work performed under permit 5-90-274-G permanent.

2. Wetlands Ecology

Section 30231 of the Coastal Act states that:

> *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 waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30240 of the Coastal Act states that:

> *(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 those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

a. Wetland Buffers

The Marblehead project site consists of a bluff and bluff top terrace incised by several canyons. A majority of the wetlands are located within the canyon bottoms. However, there are a few wetlands along the bluff top as well. As discussed above, the on-site wetlands constitute ESHA and, as long as it is not inconsistent with the more specific wetland provisions of Section 30233, must therefore be accorded the same protections that Section 30240 provides for any other ESHA.

The proposed project involves mass grading of the subject site in order to prepare the site for the residential and commercial development as well as parks and trails. This development has the potential to adversely impact wetlands habitat during and after construction. For instance, during construction, direct encroachments into the habitat could disturb (remove, trample, etc.) the habitat. Grading surrounding lands could lead to sedimentation of the wetlands. In addition, noise could adversely impact wildlife which utilize the wetland habitat. Post construction, the presence of humans living in close proximity to the wetlands can lead to disturbances from light, noise, domestic animals, over-irrigation and invasion of habitat areas by non-native, invasive plants which may be planted in the developed areas of the site.

Buffer areas are undeveloped lands surrounding wetlands. Buffer areas serve to protect wetlands from the direct effects of nearby disturbance. In addition, buffer areas can provide necessary habitat for organisms that spend only a portion of their life in the wetland such as amphibians, reptiles, birds, and mammals. Buffer areas provide obstructions which help minimize the entry of domestic animals and humans to wetlands. Buffers also provide visual screening between wetland species that are sensitive to human impacts, such as lighting. Buffers can also reduce noise disturbances to wetland species from human development. The Commission has commonly found that that a minimum 100 foot buffer needs to be established around wetlands in order to protect those wetlands from disturbance as required by Section 30231 and 30240 of the Coastal Act.

The Commission finds that in most cases a minimum 100 foot buffer (measured horizontally) would be appropriate for the wetlands at the project site (herein 'wetland buffer'). This buffer is appropriate for the site and is consistent with past actions made by the Commission. Also, the wetlands on the project site flow through the bottoms of various canyons and drainages. These canyons and drainages, in and of themselves, provide natural buffers for the wetlands. The steeper slopes of the canyons and drainages provide a natural physical impediment that serves to protect the wetlands. However, significant disturbances within the canyons and drainages would focus impacts toward the wetlands located in the bottom of those canyons and drainages. For instance, significant ground disturbing activities within the canyons and drainages would generate sedimentation that would flow toward the wetlands. Similarly, light and noise impacts occurring in the canyons and drainages would focus toward the wetlands. Accordingly, for those wetlands located within the various canyons and drainages, the buffer should extend from the edge of the wetland to the natural top of slope of the canyon/drainage, but be no less than 100 feet wide. In some cases, these minimum setbacks may result in a buffer that is more than 100 feet wide (herein 'augmented wetland buffer'). Except as identified below, the area within the 100 foot wetlands buffer must contain no development and experience no disturbance as a result of adjacent development. Uses consistent with the protection of the wetlands may be allowed within the buffer. For instance, habitat restoration may occur within the buffer area so long as the restoration is compatible with the wetlands[49]. Additional limited uses may also occur in the augmented wetland buffer. For instance, fuel modified native habitat may be planted in the augmented wetland buffer. In addition, where it isn't feasible to locate trails elsewhere, trails may be allowed within the exterior wetland buffer so long as they are confined to the outer edges of the buffer and no artificial lighting is used. The boundary of residential and commercial lots should conform with the wetland and augmented wetland buffers so that no portion of the residential or commercial lot is within the buffer.

The applicant identifies a wetland buffer which varies but is generally no smaller than 100 feet in width. Exceptions include a proposed trail and utilities near the mouth of Marblehead Canyon near El Camino Real. This 'encroachment' into the buffer would not be considered significant because the development proposed would occur within an existing dirt path and represents the least disruptive location for trails and utilities in the area. Alternative locations would require significant grading that would be disruptive to wetlands and terrestrial ESHA. In addition, at the upper end of Marblehead Canyon, the applicant is proposing to place bridge pilings for the proposed Avenida Vista Hermosa bridge within 25 feet of wetlands. Similarly, the proposed location is the least disruptive to coastal resources and would not be considered a significant encroachment.

[49] It should also be noted that fuel modification plants, while they might be allowed in the terrestrial ESHA buffer zones, should be kept out of the wetland buffer zones. Wetlands are special places that depend heavily upon moisture gradients that are reflected in their transition to upland habitat. Therefore, while a fuel modified plant palette may be allowed in an upland habitat ESHA buffer zone, wetland buffers should be planted with a plant palette that reflects natural transitional habitat.

In addition, the applicant has proposed grading, construction of trails, utilities, and water quality infrastructure (i.e. detention basin) adjacent to a small isolated wetland at proposed Lot C next to Avenida Pico. Some of these development activities would also occur within terrestrial ESHA. All development should be removed from areas designated as terrestrial ESHA. In addition, the Commission finds that the wetlands in this area are uniquely situation such that a 50 to 100 foot wide buffer would be appropriate. The deep trench with steeply sloping sides as well as the proposed low intensity uses surrounding the wetland would afford increased protection to these wetland and ESHAs. Where feasible, the buffer should be maintained at 100 feet. However, the buffer may be reduced to as little as 50 feet in certain instances.

Section 30231 of the Coastal Act requires that the biological productivity and quality of coastal waters be maintained through, among other means, the maintenance of a protective natural buffer area. Section 30240(b) of the Coastal Act requires that development in areas adjacent to environmentally sensitive habitat areas, such as the on-site wetlands, must be sited and designed to prevent impacts which would significantly degrade those areas. Some proposed encroachments are consistent with these requirements as they do not result in adverse impacts to wetlands that would significantly degrade those areas or to a reduction in the biological productivity or quality of the waters. However, where the proposed buffers do not conform with the interior and exterior wetland buffers identified above (not including the two exceptions identified above), the proposed project would have an adverse impact upon wetlands. Such impacts would not be consistent with Section 30231 or 30240(b) of the Coastal Act. Therefore, the proposed development must be denied.

b. Shading Impacts

The proposed project involves the construction of two bridges within the coastal zone which span the existing wetlands on the project site. These bridges include the Avenida Vista Hermosa bridge and a temporary construction crossing that would be turned into a permanent pedestrian footbridge.

The proposed bridges would cast shadows upon the wetlands below them. This shading can have impacts upon the vegetation communities that are a part of the wetlands. Such impacts must be reviewed for consistency with Section 30231 and 30240 of the Coastal Act. The applicant has submitted an analysis of shading impacts prepared by Glenn Lukos Associates titled "Revised Shading Study Associated with Two Proposed Bridges, Spanning Existing Wetlands on the Marblehead Coastal Site, San Clemente, California", dated December 4, 2001.

According to this shading analysis, impacts to the wetlands from shading caused by the bridge deck at Avenida Vista Hermosa would not be measurable. The biological analysis makes this determination by comparing the proposed bridge to reference sites where there are bridges with similar height and orientation characteristics over wetlands. In this case, the applicant compared the proposed bridge to one located over the San Mateo Creek at Interstate 5. The study found that there was no measurable difference in vegetative cover between the wetlands that are shaded by the bridge and the wetlands that are outside the shading. This is largely attributed to the high span of the bridge over the wetlands and the limited period during the day when any one area is shaded by the bridge. Similarly, the proposed bridge would have a high, clear span over the wetlands (about 61-70 feet) which will cast a moving shadow over the wetlands vegetation. Since no area of vegetation would be entirely deprived of sunlight, the applicants' biologist has concluded that impacts from shading by the proposed bridge deck would not be significant.

Also, the proposed bridge would have six, seven foot diameter columns to support the bridge. These columns would also cast a shadow on the wetlands. As with the bridge deck, shading

from the columns would move throughout the day and would not generate a significant impact upon the wetland vegetation. Although the shading impact is not expected to measurably effect the wetland vegetation, the applicant's study assumes that shading from these columns would impact 0.015 acres of wetland.

Also, the proposed construction crossing/pedestrian foot bridge will only have an eight foot elevation over the wetland surface. Due to the low height and the width of the bridge, shading from the bridge deck over the wetlands is expected to be complete. This shading would cause 0.005 acres of impacts upon wetland vegetation.

According to the applicant's study, the proposed shading impact would not change the hydrological or biogeochemical function of the wetlands. However, in the case of the construction crossing/pedestrian foot bridge, the shading would cause some loss of wetland vegetation. However, these losses to wetland vegetation cover are not anticipated to decrease the biological productivity or the quality of these wetland areas nor is it anticipated to have any effect on the ability of these wetlands to contribute to maintaining optimum populations of marine organisms. Furthermore, the shading is not anticipated to significantly disrupt the habitat values of the wetlands. Therefore, the Commission could find that the proposed project is consistent with Section 30231 and 30240 of the Coastal Act as these policies apply to shading effects on wetlands at the site. Nevertheless, the applicant is proposing to off-set any potential impacts on the 0.02 acres (871 square feet) of wetlands effected by shading by creating 0.09 acres (3,920 square feet) of alkali marsh on-site within Marblehead Canyon (0.06 acres) and the westerly canyon (0.03 acres).

c. Wetlands Hydrology

The applicant's submittal contains various documents which describe the hydrology of the wetlands on the project site and the impacts the proposed development would have upon wetlands hydrology. These studies show that the alkali wetlands at the site are supported primarily by ground water. Their continued viability accordingly requires that development not significantly alter either the amount or quality of ground water that is delivered to the wetlands. Obviously, reductions in ground water supplied to the wetlands could have significant impacts to hydrophytic vegetation. Less obviously, significant increases in the ground water supplied to the wetlands could have impacts as well. This is because these are alkali wetlands, and support a particular ecosystem adapted to high salinity water. Significant increases in the input of low-salinity ground water has the capacity to alter these ecosystems.

To address these issues, the applicant has submitted a number of hydrologic and biologic studies. The water budget model submitted by the applicant uses climatic data developed by Drs. Douglas Inman and Scott Jenkins at Scripps Institute of Oceanography that show that southern California experiences both wet and dry climate periods that vary on a decadal time scale. From 1948 to 1977, southern California was in a relatively dry period; and from 1977 to the present, the climate has been relatively more wet. As it is not known whether or not the climate may shift to a drier period once more, the water budget analysis was performed for both parts of the climate cycle.

The principal conclusions that emerge from the applicant's analysis are that: 1) the varying climate patterns in southern California cause considerable variation in the ground water supply to the wetlands at the site; and 2) the development will not reduce the volume of ground water available to the wetlands. In fact, the model predicts a significant increase. During dry climate periods, the predicted increase is 77 acre-feet per year, or 157% of the pre-development ground water recharge. During wet climate cycles, such as the present time, the predicted increase is 66 acre-feet, or an 83% increase over the pre-development condition. These increases, though

large, are smaller than the interannular variation in ground water recharge. They are, however, superimposed on the natural variation, and so are significant.

In addition to affecting the quantity of ground water on the project site, development has the capacity to alter the flow paths of ground water, potentially affecting the quantity of ground water that is actually available to the wetlands. The project site is underlain by two types of geologic materials that differ substantially in their hydrologic properties. The Capistrano Formation, bedrock at the site, is nearly impermeable and has only a very limited capacity to hold water in fractures. Overlying the Capistrano Formation over most of the site are marine and non-marine terrace deposits that contain appreciable amounts of gravel, sand and silt. These deposits are much more permeable to ground water. Accordingly, ground water tends to percolate through the terrace deposits and flow along the bedrock/terrace deposit contact, ultimately discharging to the surface in canyon and bluff faces. A map prepared as part of the analysis shows the topography of the bedrock surface beneath the terrace deposits, based on geologic borings and other data. The bedrock surface dips gently toward the sea, and shows no evidence of channels or other features that might concentrate ground water. Because grading into the bedrock is proposed, the capacity exists to alter ground water flow paths. The applicant also provided a map depicting the post-project condition. This map, shows that grading can be performed in such a way to preserve the natural ground water flow paths and, in the southwestern part of the property, to divert ground water toward Marblehead Canyon.

The analyses submitted contain several recommendations that will help to provide flow paths for ground water. These include: 1) in areas where cuts are to extend into the Capistrano Formation, the Capistrano Formation will be overexcavated to a depth of five feet. The base of the excavation will be graded to direct groundwater toward the canyons, and the lower one foot of the excavation will be filled with sand or gravel derived from the marine terrace deposits. Compacted fills suitable for foundations will then be placed above the sand and gravel. This sand and gravel will provide a permeable blanket beneath the compacted fills, to allow for groundwater movement; 2) a recharge trench will be excavated at the lowermost end of the excavation, in order to provide a reservoir and diffuse source for ground water discharge to the canyons.; 3) the subterranean cutoff wall that diverts water away from the unstable portion of the bluff overlooking El Camino Real at the northwestern edge of the property is to be pierced by a solid PVC pipe, equipped with a valve, to supply water to Wetland Area A. These recommendations are important to maintain ground water flow to the wetlands at the site, and the Commission would likely require the applicant to implement these recommendations in the development of the project site.

To summarize, the total amount of ground water available to the wetlands will not decrease as a result of development, and may, in fact, increase substantially. Any large increase in ground water recharge may reduce the salinity of the alkali wetlands. However, the applicant has submitted data that indicate that the alkali-adapted ecosystems in Orange County are able to tolerate a wide range of salinities. Accordingly, with the implementation of the recommendations relative to grading the site, no adverse impact to the wetlands is anticipated. Thus, the proposed project is not anticipated to decrease the biological productivity or the quality of these wetland areas nor is it anticipated to have any effect on the ability of these wetlands to contribute to maintaining optimum populations of marine organisms. Furthermore, the fluctuation in ground water supply is not anticipated to significantly disrupt the habitat values of the wetlands.

d. Ground Water Quality

Increases in ground water recharge as a result of development may decrease the salinity of water available to the wetlands, as explained above. Because of the large uncertainties in the

estimates of changes in ground water discharge, it is not possible to predict accurately the magnitude of these changes. Further, the relationship between increases in ground water recharge and wetland salinity is not necessarily linear because some of the increase in ground water may be held in storage, and because evaporation of ground water as it is discharged to the wetlands will vary seasonally.

The expected decreases in wetland salinity may be compensated for, to some degree, by increases in the dissolved solids that could result from the percolation of ground waters through artificial fills. Artificial fills that consist of material derived from the Capistrano Formation will contain significant amounts of the mineral gypsum. Gypsum consists of calcium sulfate and is easily dissolved by ground water. Because of the relatively impermeable nature of the Capistrano Formation bedrock, little ground water penetrates the formation. Nevertheless, the Capistrano Formation bedrock is responsible for the saline nature of the wetlands at the site. Fills derived from the formation (particularly the lower, unoxidized part of the formation) will consist of loosened material that will be somewhat permeable. As water percolates through such fills, it will dissolve gypsum and its salinity will increase, perhaps substantially. Approximately one third of the cuts planned for the site involve the Capistrano Formation bedrock. The applicant's analyses recommend that fills derived from these cuts be placed on the east side of the property (beneath the commercial zone and lots 23 through 32). Ground water at these locations will drain south and east of the site, and will not enter the wetlands on site.

Again, the applicants biological analyses present data that indicate that the alkali-adapted ecosystems in Orange County are able to tolerate a wide range of salinities. Accordingly, with the implementation of the recommendations relative to grading the site, no adverse impact to the wetlands is anticipated. Thus, the proposed project is not anticipated to decrease the biological productivity or the quality of these wetland areas nor is it anticipated to have any effect on the ability of these wetlands to contribute to maintaining optimum populations of marine organisms. Furthermore, the fluctuation in ground water salinity is not anticipated to significantly disrupt the habitat values of the wetlands.

3. Conclusion – Wetlands

The subject application seeks permanent authorization for the impacts to wetlands which occurred during the emergency grading of the site in the early 1990s. The Commission finds that such impacts could be found consistent with Section 30233(a)(5) of the Coastal Act as necessary for incidental public service purposes provided that mitigation for the impacts were also provided. The proposed project also raises issues regarding encroachments into required wetland buffers. Other potential impacts upon wetland relate to shading impacts, hydrology impacts and potential changes to the salinity of groundwater discharged to the wetlands under the developed condition. However, the Commission could find that the shading impacts would have no impact on the biological productivity or the quality of the wetlands nor have any effect on the ability of these wetlands to contribute to maintaining optimum populations of marine organisms. Furthermore, the shading is not anticipated to significantly disrupt the habitat values of the wetlands. In addition, the Commission has not identified any information which would contradict the applicant's conclusions regarding hydrology and groundwater impacts. With the implementation of the proposed mitigation measures, at minimum, the Commission could find that adverse impacts to wetland hydrology and groundwater salinity would not be significant. However, the Commission is denying the proposed project and need not identify all of the mitigation measures that would be required to assure compliance with Coastal Act policies relative to the protection of wetland habitat.

E. LANDFORM ALTERATIONS

1. Landform Alterations to Drainages/Canyons

Section 30251 of the Coastal Act states in relevant part:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Section 30251 of the Coastal Act requires that landform alteration be minimized in new development. One purpose of minimizing landform alteration is to maintain the aesthetic qualities of the coastal zone. Minimization of landform alteration and grading also addresses other Chapter 3 Coastal Act objectives such as protecting habitat and water quality which are discussed elsewhere in these findings. Techniques to minimize landform alteration include designing new subdivisions, such as the proposed project, to avoid changing significant landforms and avoiding geologically hazardous areas such as landslides and steep slopes where significant grading would be required to develop those areas. Furthermore, the topography of the site should dictate the layout of the subdivision so that significant grading is not necessary to construct roads and flat pads for buildings. Finally, once a subdivision is designed to avoid development upon significant geographic features and geologic hazards, the foundation systems of any structures on sloping areas should consider multi-level pads and pile foundations so that large single pads for multiple houses, which require significant quantities of grading, are not necessary.

At the subject site, the application of these site design principles would translate into designing the subdivision and roads to follow site contours. In addition, development within drainages and canyons should be avoided while also implementing a setback from those areas. Canyon edge setbacks have several purposes, including minimizing visual impacts of placing development at prominent locations (such as along canyon edges) and to avoid geologic hazards that are commonly present in sloping terrain. For setbacks, the Commission has commonly required a minimum 10 to 15 foot setback from the crest of the slope of a canyon[50]. Where a road to accommodate reasonable circulation through the development is necessary, bridges should be used so that no filling of the drainages/canyons is necessary. As discussed below, the proposed project does not follow these site design principles and is not consistent with Section 30251 of the Coastal Act.

As described by the applicant, a total of 1,185,700 cubic yards of cut and 1,226,000 cubic yards of fill for a total of 2,412,300 cubic yards of grading would occur within the coastal zone[51]. Exhibit 9 shows the proposed cut and fill areas associated with the development. It should be noted that these estimates of total grading may underestimate the total amount of grading that would be necessary at the site. The applicant's geologic report contains recommendations for remedial grading, which may be necessary for stabilization of landslides, colluvium, and existing fills. In addition, in order to maintain ground water flow paths such that wetlands in the canyon bottoms will continue to be supplied by ground water, the geologic report recommends

[50] See Statewide Interpretive Guidelines and the certified Land Use Plan for the City of San Clemente
[51] An additional 842,000 cubic yards of grading would occur outside the coastal zone in the construction of the commercial development.

overexacavation of some areas of cut, in order to replace relatively impermeable materials with more permeable materials. No estimates of the total remedial grading necessary to accomplish these tasks are available, but remedial grading will likely add several hundred thousand cubic yards of grading to the project total.

Approximately 132.7 acres (66%) of the 201 acre portion of the site within the coastal zone would be graded. Large areas of cut and fill are proposed to create terraces for the construction of homes (such grading would maximize the number of ocean view lots within the development) and the commercial development. Additionally, some fill of canyons/drainages (or portions thereof) is proposed to construct an extension of Avenida Vista Hermosa, water quality management infrastructure (e.g. detention basins), public trails, and public park areas.

The applicant has submitted several maps to aid the Commission's analysis of the amount of proposed canyon fill. These maps, produced through analysis of slope and change in slope angle, were an attempt to arrive mechanically at a "top of slope" line consistent with Coastal Act definition of bluff edge. This definition, as spelled out in California Code of Regulations, Title 14, § 13577 (h) (2), states that:

> *Bluff line or edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge.*

Unfortunately, the Computer-Aided-Design (CAD) software employed in producing these maps was not capable of applying this definition in a meaningful way. However, other maps submitted by the applicant contain, respectively, Commission Staff[52] and Applicant-interpreted determinations of the top edge of the slope. The applicant-derived top-of-slope line was arrived at by use of criteria that were believed consistent with the City of San Clemente certified LUP[53], whereas the Commission Staff's top-of-slope line was arrived at by the criteria spelled out in Title 14, CCR § 13577 for the definition of the top edge of a coastal bluff. The analyses differ in that: 1) the applicant chose the top edge of the slope to lie at the point where the slope attains a 30% grade, whereas Commission Staff chose the top edge of slope as the point at which the slope increases more-or-less continuously; this point is generally at less than a 30% grade; and 2) the applicant discounted any part of a canyon that was less than 10 feet deep, thus drawing the top-of-slope line across the heads of canyons; whereas Commission Staff included the entire canyon as lying within the top-of-slope line. Both analyses show that considerable portions of canyons are to be filled.

More specifically, as shown in Exhibit 11, this grading would result in the filling of the upper tips of one smaller canyon (Drainage 'D' herein called the "trident canyon"), the filling of approximately 1,000 linear feet of the approximately 2,300 linear foot long Drainage C (herein called the "western canyon") and approximately 1,000 linear feet of the approximately 1,600 linear foot long eastern branch of Drainage E (herein called the "eastern branch of Marblehead Canyon"). Additionally, the tip (approximately 30 linear feet) of Drainage A would be filled and

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[52] Commission staff produced a map identifying a top of slope line which was published as 'Exhibit 32' in the March 2001 staff report. Many of the applicant's exhibits reference this "Exhibit 32" top of slope line. Since that time, an updated top of slope line has been generated by Commission staff. This updated line is shown on Exhibit 11 of this staff report.

[53] While an LUP has been certified for the City of San Clemente, no LUP has been certified for the subject site. The certified LUP contains a definition of 'coastal canyon/bluff' which defines these features as "Those features having vertical relief of ten feet or more. "

the tip (approximately 350 linear feet) of Drainage B (total of 700 feet long) would be filled[54]. In addition, various spurs of the main branch of Marblehead Canyon are proposed to be filled or otherwise graded.

Any grading results in some amount of landform alteration. Nevertheless, a certain amount of grading is necessary in order to prepare sites for development. Under Section 30251 of the Coastal Act, the potential to minimize landform alteration must be considered. One way of analyzing the significance of the landform alteration is in terms of the quantity of grading and/or the amount of cut or fill that would occur in any one area. Another way of analyzing the significance is to consider the overall dimensions of the landform to be altered and the form that the area will have upon completion of the grading. However, these more quantitative methods are not the sole criteria by which the significance of the landform alteration can be judged. Rather, certain other more subjective criteria must also be considered such as: 1) the visual appeal of the landform; 2) the location of the landform with respect to the public's visual enjoyment of the landscape feature; 3) the unique qualities of the landform feature; and 4) the extent to which preservation of natural landforms can accomplish multiple objectives such as, but not limited to, preserving habitat, preserving appealing vistas, and addressing water quality issues. This is not an exhaustive list of criteria by which the significance of landform alteration can be analyzed, but does represent the types of criteria that were considered in determining the significance of the landform alteration occurring on the proposed project site. As noted above, there are five general areas where landform alteration is an issue at the project site. The significance of the landform alteration at each of these areas will be discussed using some or all of the criteria identified above, as deemed relevant by the Commission in each case.

At Drainage A, the applicant is proposing to fill approximately the most inland 30 feet of the drainage. Drainage A is very shallow and there is nothing particularly remarkable in terms of visual appeal about the drainage. Therefore, the proposed fill of the drainage does not represent a substantial landform alteration issue.

Drainage B is a shallow, linear drainage feature that is approximately 10 to 15 feet deep. The proposed project would grade the inland 350 linear feet of the feature. In the area to be filled, the drainage ranges from approximately 10 to one (1) foot deep. Similar to Drainage A, Drainage B is very shallow and does not have significant visual appeal. Accordingly, the proposed fill of the drainage does not represent a significant landform alteration issue. However, the area to be filled does contain coyote bush scrub that has been mapped as occupied by California gnatcatcher. As discussed elsewhere in these findings, this habitat is considered ESHA under the Coastal Act. Accordingly, impacts to this ESHA and buffer area must be avoided.

The western canyon (Drainage C) is a long, linear, deep to shallow canyon which extends 2,300 feet inland from the bluffs along El Camino Real. The canyon has a maximum depth of 30 feet, becoming more shallow at its inland reach. The boundaries of the canyon/drainage are well-defined, even at its more shallow depths. Wetlands, coastal sage scrub, Blochman's dudleya and California gnatcatcher are present in the canyon. The proposed project would grade the upper, more shallow areas of the canyon for the construction of roads and higher density housing and retain the deeper, more habitat rich areas of the canyon. The steep slopes, sinuous path and relatively lush vegetation of the deeper areas of the western canyon make this canyon visually appealing as a canyon landform. Public trails and park area can be sited along the rim of the canyon to take advantage of the canyon's intrinsic qualities. The deeper portions

[54] These figures are derived based upon the 'Commission Staff' determined top of slope found on Exhibit 11. The corresponding figures based upon the 'Applicant interpreted' top of slope found on Exhibit 12 are as follows: Drainage A = no fill, not defined as a drainage/canyon; Drainage B = no fill, not defined as a drainage/canyon; Drainage C (western canyon) = 500 linear feet of a 1,760 linear foot long canyon filled; Drainage D (trident canyon) = no fill; East Branch of Drainage E (Marblehead Canyon) = 950 linear feet of 1,550 linear foot long canyon filled

of the canyon also contain significant habitat, thus, preservation of the deeper areas of the canyon achieves habitat preservation goals of the Coastal Act. The grading of the deeper canyon areas would constitute significant landform alteration.

The shallower portions of the western canyon are less remarkable. As the canyon becomes more shallow, the wetlands disappear and give way to annual grassland and coyote bush scrub habitat. These vegetated areas may occasionally provide habitat and foraging area for wildlife, but are not particularly high in habitat value nor is the area situated within a habitat corridor. The shallower canyon areas also lack the visual appeal of the deeper portions of the canyon. Therefore, the Commission finds that the filling of the inland, more shallow portions of the western canyon would not constitute an unacceptable landform alteration.

Drainage D is located between the western canyon and Marblehead Canyon along the bluffs facing El Camino Real. The drainage is trident-shaped and the boundaries are well-defined. The drainage is up to 30 feet deep, with the majority being 20 feet deep or less. The applicant is proposing to fill the upper, shallower tips of the trident canyon for the construction of houses, park and public road and parking area for the park. The applicant is proposing to avoid filling the main body of the canyon (i.e. those parts that are 10+ feet deep). The trident canyon would be considered a significant landform for several reasons. First, the canyon has a relatively unique trident shape that is visually appealing. Second, trails and park area could be situated to utilize the feature as an interesting visual attraction. Third, the bottom of the canyon has native needlegrass grassland habitat that is ESHA. In addition, burrowing owl and California gnatcatcher have been documented utilizing the canyon. Gnatcatcher territories with breeding pairs accompanied by dependent fledglings have been recorded in the adjacent canyons on both east and west sides of the trident canyon in 2001 and in historical observations over the last ten years. Accordingly, the canyon is located in a habitat corridor that connects two core habitat areas for California gnatcatcher. Thus, preservation of this significant landform would achieve multiple Coastal Act objectives.

The current plan proposes to retain the deeper parts of the canyon and to fill the shallower inland tips for houses and a road. While the shallower parts of the trident canyon are an integral part of the overall landform feature, it would be difficult to argue that the fill of these shallow areas would constitute significant landform alteration within the meaning of Section 30251 of the Coastal Act. Ideally, the entire landform should be preserved. Although such preservation is not mandated by Section 30251 of the Coastal Act, as described elsewhere it is mandated by Section 30240 of the Coastal Act because the canyon is within a connective corridor. Thus, fill of the canyon must be avoided.

The main branch of Marblehead Canyon (Drainage E) transects the entire project site from El Camino Real to Interstate 5. Other than the bluffs along El Camino Real, this canyon is the most prominent landform on the project site. The canyon is generally 50 to 60 feet deep and ranges from approximately 400 to 900 feet wide (measuring rim to rim) with well-defined boundaries. There are several spurs of the main body of the canyon that have varying dimensions. There is also a secondary branch ('east branch' discussed below) that extends from the main body of the canyon. Marblehead Canyon is visually appealing as a canyon and open space area. The walls of the canyon are steep to gentle with undulations that follow the sinuous canyon bottom. There are wetlands, coastal sage scrub, grasslands, and open canopy woodlands in the canyon. A large variety of wildlife, including California gnatcatcher and raptors utilize the habitat. Vantages from the canyon rim afford views through the canyon with 'blue water' views of the Pacific Ocean. The depth and width of the canyon create an open space area within which there is a sense of isolation from the surrounding urban environment. Along the western side of the main branch of Marblehead Canyon, the proposed project would grade the upper wall and rim of the canyon and fill the spurs off that side of the canyon. The grading

would create pads for roads and single family residences. In addition, a proposed public trail which would run the length of the canyon would be constructed on the graded slope. Grading also would be required to construct a large detention basin that is part of the water quality management infrastructure. There are some instances where the grading along the western side of the canyon would not be considered significant and others where such grading would be substantial landform alteration.

On the west side of the main branch of Marblehead Canyon, there is a spur (herein 'Spur E1') that would be graded and filled for the proposed development. Fill of this spur would not be considered significant landform alteration (Exhibit 11). Spur E1 is located within the area of proposed residential lots 86-94. In terms of width and depth, Spur E1 is presently the largest of the spurs off the west side of Marblehead Canyon and measures about 300 feet by 400 feet and approximately 30 feet deep. This spur has relatively steep sides and is well-defined. Vantages from the rim of this spur include the spur itself and the main body of the canyon. However, a majority of the depth of this spur is attributable to a soil stockpile from the emergency bluff grading that was placed up to the edge of the spur. Therefore, this spur is artificially deep and well-defined. When considering the natural contours of the area, the spur is shallower and less dramatic. Accordingly, the spur doesn't contribute significantly to the character of the canyon. Therefore, the Commission finds that grading and filling of Spur E1 is not substantial landform alteration.

On the west side of the main branch of Marblehead Canyon, seaward of Spur E1, there are a series of smaller spurs that are approximately 30 feet deep (herein 'Spur E2' and 'Spur E3'). Grading for the construction of homes and the trail along the western wall of Marblehead Canyon would fill a portion of Spur E2. The applicant is proposing to avoid any grading within Spur E3. These spurs are at the confluence of the main branch and east branch of Marblehead Canyon. These spurs contribute to the volume and visual interest of the main body of the canyon. Furthermore, these spurs contain significant habitat area and are part of the core habitat for gnatcatcher. Avoiding the fill of these spurs would help protect core habitat areas and thus address multiple objectives of the Coastal Act. Therefore, the Commission finds that the filling and grading of Spur E2 would constitute significant landform alteration that must be avoided in the manner that Spur E3 is proposed to be avoided.

The grading and fill of a large area located on the east side of the main branch of Marblehead Canyon also is proposed. This area is located in the footprint of the proposed Avenida Vista Hermosa extension and the commercial development. This area, approximately 1300 feet long and up to 350 feet wide, consists of two spurs (herein 'Spur E4' and Spur 'E5') and the intervening ridge and a broad portion of the eastern slope of Marblehead canyon, all located well below the top of slope as defined by Staff. These spurs and ridges have gentle slopes that make them less well defined than other features of the canyon. The top of slope in this area likewise is less well-defined than in other areas. Accordingly, this area does not contribute volume or visual depth to the canyon. Thus, these landforms do not contribute significantly to the scenic qualities of Marblehead Canyon. Furthermore, this area does not contain any significant habitat area nor are they within a significant habitat corridor or a portion of a core habitat area. Thus, the grading and filling of Spurs E4 and E5 would not be considered unacceptable landform alteration, even though it constitutes the fill of a relatively large area of the eastern slope of Marblehead Canyon.

As described elsewhere, there is a significant canyon feature which branches east off of the main branch of Marblehead Canyon (herein 'east branch'). The east branch is about 1,600 feet long, 300 to 400 feet wide, and 30 to 60 feet deep. The rim of the east branch is well-defined. The proposed project would fill or otherwise grade approximately 1,000 linear feet of this canyon. The grading would create pads for the commercial development, the proposed

extension of Avenida Vista Hermosa and the construction of single family residences and infrastructure. An overlook park also is proposed at the top of the fill slope of the canyon.

The landform alteration occurring on the eastern branch of the Marblehead Canyon would occur by both cut and fill. The canyon becomes more shallow from its seaward end to its northern end. In addition, the canyon narrows in width along its axis. As the canyon becomes more narrow and shallow, its features become less distinctive. Accordingly, since the canyon is deeper and wider in the area of the residential development than in the commercial development, the landform alteration to the canyon is more significant within the residential area than in the commercial area. For instance, within the residential area, the canyon has a bottom elevation of around 100 feet and a rim elevation at around 160 feet. Within the residential areas, the proposed project would grade relatively flat stepped pads (with capacity for tens to dozens of houses) with elevations at around 115 feet and 145 feet. This grading requires cutting down the higher elevations by approximately 20-40 feet and filling the lower elevations by approximately 20-40 feet to achieve the desired grades. In the commercial area, the canyon bottom is at approximately the 130-135 foot elevation, while the rim is at approximately the 170 foot elevation. The pad for the commercial development has elevations around 150 to 155 feet. Accordingly, approximately 20 feet would be cut and 20 feet would be filled. However, the canyon is much more narrow within the commercial area than the residential area.

The wider, deeper, more distinctive seaward portions of the east branch (generally located seaward of the proposed Avenida Vista Hermosa extension) are significant features of the landscape. The slopes are steep to gentle with the canyon body as a whole being visually appealing. The wider, deeper portions of the canyon also contribute significantly to the volume and visual depth of the canyon. Filling these portions of the canyon and placing houses within this area would significantly degrade the visual quality of this landscape feature. Due to the well-defined nature of the canyon, a trail along the rim of this canyon would provide an important vantage of the main body of the canyon and the Pacific Ocean. Furthermore, these wider, deeper areas contain habitat and provide habitat buffers and linkages that are important for wildlife conservation. Therefore, the Commission finds that the filling or other grading of the east branch seaward of proposed Avenida Vista Hermosa would constitute substantial landform alteration.

The narrower, shallower, less distinctive portions of the east branch (within the footprint of proposed Avenida Vista Hermosa and the commercial development) are not significant landforms. These shallower areas do not contribute significantly to the visual appeal of the canyon system on the project site. In addition, these areas do not contain significant habitat. Also, although there may be alternatives which would avoid the fill of the shallower areas, such as using a bridge for Avenida Vista Hermosa, and redesign of the commercial development, there would be no significant benefit in terms of protecting important landforms to such avoidance. Therefore, the Commission finds that filling the shallow areas of the east branch of Marblehead Canyon could be considered.

The proposed significant landform alteration described above would not be consistent with Section 30251 of the Coastal Act, which requires, in part, that new development be sited and designed "to minimize the alteration of natural land forms." The site consists of well-defined upland areas (two marine terraces) that are relatively deeply dissected by canyons. The demarcation between the uplands and the canyons is very clear in most places, as the canyons are separated from the uplands by abrupt changes in slope. A logical building envelope, respectful of natural landforms existing at the site, might be restricted to the upland areas (outside of the "top-of-slope" line, Exhibit 11), or at least avoiding the more significant canyon features, as described above. In addition, upland areas could be developed through the use of building pads to accommodate individual residential sites. Although the present proposal calls

for much less canyon fill than previous proposals, extensive fill of canyon areas remains, and the uplands are to be graded to produce building pads to accommodate entire cul-de-sacs, containing 10-20 residential sites.

There are alternatives to the grading and filling of canyons on the project site. For instance, if development (including houses, commercial buildings, roads, trails, and parks) was confined to the gently sloping marine terraces which occur over large areas of the project site, and building pads were constructed only to accommodate individual building footprints, then far less landform alteration would occur. In this way, the character of the existing canyons could be maintained.

The Commission finds that the proposed project does not minimize landform alteration. There is ample space on the project site where development could be accommodated without the substantial alteration of existing terraces and canyons. Therefore, the Commission finds that the proposed project is inconsistent with Section 30251 of the Coastal Act. Therefore, the proposed project must be denied.

2. Scenic Resources

Section 30251 of the Coastal Act states in relevant part:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas...*

The project site is visible to the public from the Interstate 5 freeway. Presently, there are views of the coast across the site. These are some of the last views the public traveling north along this major highway have of the coastline for several hundred miles. Furthermore, these views are some of the only views the public has of the coastline from the highway in San Clemente. The proposed project would interfere with these existing views. In addition, there are existing public views of some of the canyons on the site. The proposed project would diminish these views.

In addition, the canyons on the project site have aesthetic qualities that are increasingly unique in coastal Orange County and San Clemente. Drainages and canyons similar to those on the project site were once common geographic features along Orange County's coastline, much of which is characterized by coastal bluffs with canyons and drainages intersecting the bluff face. However, intense urban development along the Orange County coastline has caused the fill or substantial alteration of these geographic features. Elsewhere in San Clemente, the coastal canyons have been developed with residential and other urban development. In some cases, these drainages and canyons were filled or so substantially altered for development that they are unrecognizable as a drainage or canyon. In other cases, houses are perched at the top of the canyon slopes or within the canyons themselves. In addition, ornamental landscaping and associated appurtenant structures are found on the slopes and within the canyons. The visual quality of these other canyons has been substantially degraded over time. However, with the exception of the mouths of the canyons that were graded in the early 1990's, the canyon landforms are substantially intact at the subject site. The canyon slopes are covered by a mixture of coastal sage scrub, grassland, and open canopy woodlands. The canyon bottoms contain alkali and freshwater wetlands. Birds and other wildlife are found within these canyons. The proposed landform alteration would eliminate one canyon, decrease the length of the retained canyons and grade and fill natural undulations and spurs along the sides of the canyons. These changes decrease the overall natural quality to the canyons and their aesthetic

appeal. These changes also have adverse impacts upon existing public vantages of the canyons from Interstate 5 and El Camino Real.

The applicant has argued that the proposed project would enhance the public's ability to partake of views to and along the ocean compared with the existing condition. For instance, the proposed project includes view points available to the public within the proposed commercial development. In addition, the proposed project has public view points within the proposed bluff park and along the bluff trail. These view opportunities are presently not available to the public but would be made available under the proposed project. The Commission recognizes that the provision of viewing opportunities in locations not presently afforded to the public is a valuable component to any proposed development. However, these viewing opportunities can only be utilized by entering the developed area, parking, and visiting the view point. Furthermore, alternatives to the proposed project which are less environmentally damaging, and specifically, less damaging to existing views, could incorporate view points as well. Therefore, the proposed project is not the only project which could incorporate new public view points.

In addition, there is a prominent 'peninsula' that protrudes into the canyon area that is located between the east branch and the main stem of Marblehead canyon. As is discussed elsewhere in these findings, placing high intensity development in this location (such as housing) would have significant adverse impacts upon biological resources. In addition to the biological impacts, placing intense development on this prominent land feature would have adverse visual impacts. The use of this peninsula for housing or similar intense development would change the natural open space character of the canyon and destroy the visual appeal of the area. The applicant has recognized the visual and biological importance of this peninsula area and is proposing to make that area a part of the proposed open space area.

As noted above, there are alternatives which would avoid the large scale landform alteration proposed. The Commission finds that the proposed project does not protect the scenic and visual qualities of the site. This failure to minimize landform alteration results in adverse impacts to scenic canyons and coastal views. There is ample space on the project site where development could be accommodated without the substantial alteration of existing canyons and their visual appeal. Therefore, the Commission finds that the proposed project is inconsistent with Section 30251 of the Coastal Act, and thus must be denied.

3. Water Quality Effects of Landform Alterations on Ephemeral Drainages

In addition, landform alteration may impact the quality of surface waters through such means as reducing the area of pervious surfaces and altering natural drainage, filtration, and infiltration patterns. Under existing conditions, the watershed is characterized by a moderately sloping marine terrace and deeply incised canyons formerly described above in the staff report. Most of the on-site surface water drains towards El Camino Real, while a small portion discharges to the Prima Deshecha Channel and an even smaller portion to the Segunda Deshecha Channel. The project site contains several sub-area watersheds that are hydraulically contained on site, and thus do not receive pollutants from off-site surface waters. Additionally, the site receives surface drainage run-on from portions of the Interstate 5 Freeway (I-5), as well as the Marblehead Inland development located inland of the I-5.

The proposed project would grade or fill drainages and canyons that can be characterized as non-wetlands, ephemeral drainages. These drainages, which for purposes of water quality terminology can be called natural hydrologic features, were formed by both surface water and ground water flows. Grading and filling natural hydrologic features raises significant water quality issues, including 1) the loss of the natural water filtration mechanisms that provide water quality, quantity, and conveyance benefits to the coastal environment; 2) an inherent conflict

with the "Management Measures" in the Plan for California's Nonpoint Source Pollution Control Program (NPS Plan).

a. Coastal Act Water Quality Authority

Because so many coastal resources are, at least in part, a function of good water quality, the Coastal Act provides the Commission with a broad basis to protect and enhance marine resources and coastal waters that are adversely impacted by polluted runoff. The Coastal Act's primary water quality provisions that relate to the issues of ephemeral drainages in the Marblehead Development include Sections 30230, 30231, and 30251.

Section 30230 of the Coastal Act establishes the broad basis for water quality protection, as well as provides the basis for a greater level of protection for coastal estuarine habitats, coastal wetland habitats, and species of special biological significance by regulating uses that contribute polluted runoff and adversely impact marine organisms. Section 30230 states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act establishes the Commission's authority to protect coastal water quality by preventing or controlling polluted runoff generated by marine and land use activities. Further, it provides the Commission with authority to implement management measures and BMPs in order to maintain, enhance, and restore coastal waters to maintain optimum populations of marine organisms and human health. It also provides for protection of coastal watersheds through implementation of management measures and BMPs, including but not limited to minimizing adverse effects of discharges, controlling runoff, minimizing hydromodification and stream alterations, and maintaining natural vegetation buffers. Section 30231 states:

> *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 waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30250 of the Coastal Act mandates that when new development project are reviewed it is necessary to determine if the development will have significant adverse effects on coastal resources. For instance, significant adverse cumulative impacts (considering all various developments that occur in a watershed) and that significantly disrupt habitat values, water quality, and other resources must be considered. Section 30250 states:

> *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources....*

Sections 30230, 30231, and 30250 of the Coastal Act require that marine resources be maintained, enhanced, and restored in a manner that will sustain the biological productivity of all species of marine organisms in coastal waters, and that the biological productivity and water quality of coastal waters be maintained and restored by controlling polluted runoff.

b. Importance of Natural Drainage Features in Water Quality Protection

Natural drainage ways provide treatment, infiltration, and attenuation of runoff, all of which are mechanisms that protect and enhance coastal water quality. According to a federal NPS pollution guidance document[55], the preservation of natural drainage features is important because "...riparian areas, wetlands, and vegetative buffers serve as filters and trap sediments, nutrients, and chemical pollutants... [and] may also have the added benefit of providing long-term pollutant removal capabilities without the comparatively high costs usually associated with structural controls." (*Justification of Watershed Protection Management Measure*, from the "g-Guidance" published by NOAA and the EPA)

The drainages on the Marblehead site were formed over time by the conveyance of surface water runoff as well as from the flow of groundwater through the subsurface. Surface water runoff enters the drainages by sheet flow, is slowed by the vegetation, and may be filtered as sediments fall out of suspension and plants phytoremediate pollutants. Runoff may also be infiltrated into the soil and treated as the water moves through the substrate. The flow of water through natural hydrologic features also helps maintain physical parameters of water, including temperature, dissolved oxygen, and salinity. Accordingly, grading or filling the drainages would result in the loss of these important water quality functions.

The fact that these are ephemeral drainages does not lessen their contribution to maintaining healthy water quality. Depending on the intensity and duration of storm events, the runoff through the canyons may occur as sheet flow when the infiltration capacity of the surface has been exceeded. However, rain events and hydrologic systems are dynamic, and the fact that runoff occurs as sheet flow at certain times and in some areas of the canyons does not preclude the fact that during a rain event the runoff can still infiltrate and filter in other areas as the ground surface falls below saturation levels. In Southern California many rainfall events do not result in soil saturation and sheet flows, and thus, allow runoff to be infiltrated and filtered by the ephemeral drainages.

Because there has not been water quality monitoring on this site, and because the site is currently undeveloped, it is difficult to quantify the drainages' ability to remove pollutants. In general, though, natural drainages help maintain optimal quantity and quality of water. The pollution abatement function of wetlands, riparian areas, and other natural conveyance landscapes are well documented. As the EPA and NOAA state:

> *"The preservation and protection of wetlands and riparian areas are encouraged because these natural systems have been shown to provide many benefits, in addition to providing the potential for NPS pollution reduction. The basis of protection involves minimizing impacts to wetlands and riparian areas serving to control NPS pollution by maintaining the existing functions of the wetlands and riparian areas, including vegetative composition and cover, flow characteristics of surface water and ground water, hydrology and geochemical characteristics of substrate, and species composition (Azous, 1991; Hammer, 1992, Mitsch and Gosselink, 1986; Reinelt and Horner, 1990;*

[55] Section 6217(g) of Coastal Zone Act Reauthorization Amendments, 16 U.S.C. § 1455b(g), requires NOAA and the EPA, in consultation with other federal agencies, to publish and periodically revise a NPS pollution Management Measures Guidance document known as the "g-Guidance." California's NPS Plan is based on this document.

Richter et al., 1991; Stockdale, 1991)." [g-Guidance, page 3]

"Wetlands and riparian areas should be considered as part of a continuum of filters along rivers, streams, and coastal waters that together serve an important NPS abatement function." [g-Guidance, page 4]

A natural system that has evolved over millennia as part of the natural geomorphological and hydrological cycles plays a significant role in the sediment, nutrient, and water budgets of coastal ecosystems.

c. Necessity of Site Design for Water Quality Management

It is widely recognized in water quality management literature that there are three essential elements to water quality protection: 1) site design, 2) source control best management practices (BMPs), and 3) structural treatment BMPs. Successful water quality protection can only be achieved by combining these three essential elements. Site design and source control BMPs minimize the generation and addition of pollutants to the system, while structural BMPs remove pollutants that have already entered the water, but before it reaches receiving waters, thus reducing the contribution of unavoidable pollutants to receiving waters.

The proposal to grade natural drainage features clearly demonstrates that site designing for water quality was not considered part of this proposal. The ephemeral drainages on the Marblehead site provide the natural filtration of pollutant-laden water that engineered systems (BMPs) are designed to emulate. Biological treatment BMPs, including grassy swales and vegetative filter strips are engineered to mimic the filtration mechanisms of natural systems. BMPs are installed to mitigate the greater influx and range of pollutants associated with new development, as well as to account for the fact that the continuum of natural drainages and riparian areas and wetlands may no longer be in existence.

However, it is well documented that BMPs are not able to remove all pollutants from runoff. In addition, the success of BMPs is reliant upon persistent monitoring and maintenance of the structures over time. If filters aren't changed or sediment basins aren't cleared out, for example, the structures will not provide as efficient or effective pollutant removal as is possible or as was expected. BMPs are therefore dependent upon people and institutions (e.g. Homeowners Associations) to conduct thorough and proper maintenance procedures for the life of the development. In addition, structural BMPs are successful primarily if they are implemented with a comprehensive source control and site design program.

Thus, Water Quality Management Plans are expected to rely heavily on planning, siting, and designing the development to minimize impacts to water quality and natural conveyance systems, as well as on source control programs. The applicant has submitted an extensive Water Quality Management Plan that proposes structural treatment BMPs for this site; however, it falls short in implementing site design principles, which would prevent water quality impacts from happening in the first place. The preservation of natural hydrologic features on this landscape should have been the foundation of water quality site design in the development.

d. Protection of non-wetland drainages as stated in California's NPS Plan

Preserving natural drainage features is a basic principle that is well supported in state and federal guidance documents, and thus should be an important component of water quality management on this site. The Plan for California's Nonpoint Source Pollution Control Program, written by the California Coastal Commission and the State Water Resources Control Board and approved by the EPA and NOAA, clearly provides for the protection of natural drainage features

in watershed protection and site development. The document is largely based on the ideas set forth by the EPA and NOAA in the "g-Guidance,"[56] which is a guidance document for nonpoint source pollution control programs and coastal zone management agencies. The NPS Plan establishes 61 Management Measures for the statewide control of nonpoint source pollution. In terms of a 250-acre site containing multiple canyon systems, it is relevant to apply both large-scale (watershed protection) and small-scale (site development) water quality Management Measures (MMs).

The Urban Management Measure (3.1 A)—Watershed Protection states:

> *Develop a watershed protection program to:*
> 1. *Avoid conversion, to the extent practicable, of areas that are particularly susceptible to erosion and sediment loss;*
> 2. *Preserve areas that provide important water quality benefits and/or are necessary to maintain riparian and aquatic biota;*
> 3. *Protect to the extent practicable the natural integrity of water bodies and natural drainage systems associated with site development, including roads, highways, and bridges;*
> 4. *Limit increases of percent impervious surfaces; and*
> 5. *Provide education and outreach to address sources or nonpoint source pollution.*
>
> *Sound watershed management requires that both structural and nonstructural measures be employed to mitigate adverse impacts of storm water.*
>
> *Nonstructural Management Measures 3.1A (Watershed Protection) and 3.1B (Site Development) can be effectively used in conjunction with Management Measure 3.1C (New Development) to reduce both the short- and long-term costs of meeting treatment goals of this management measure.*

The Urban Management Measure (3.1 B)—Site Development states:

> *Plan, design, and develop sites to:*
> 1. *Protect areas that provide important water quality benefits, necessary to maintain riparian and aquatic biota, and/or are particularly susceptible to erosion and sediment loss;*
> 2. *Limit increases of impervious areas;*
> 3. *Limit land disturbance activities such as clearing and grading, and cut-and-fill to reduce erosion and sediment loss; and*
> 4. *Limit disturbance of natural drainage features and vegetation.*

The Watershed Protection MM promotes the concept that natural drainage features should be preserved as development occurs. It is entirely relevant to apply this concept to the Marblehead site because this project entails the construction of a residential neighborhood and 50 acres of commercial space on 250 acres of currently undeveloped land, upon which currently exist several subdrainages. It also promotes the implementation of source control and site design measures in conjunction with structural treatment BMPs.

The Site Development MM aims to provide controls and policies that are to be applied during the site planning and review process. These controls and policies are necessary to ensure that development occurs so that nonpoint source concerns are incorporated during the site selection and the project design and review process. The National Oceanic and Atmospheric

[56] US Environmental Protection Agency and National Ocean and Atmospheric Administration 1993, "Guidance for Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters.", EPA-840-B-93-001c dated January 1993

Administration (NOAA) and the Environmental Protection Agency (EPA) justify the preservation of natural hydrologic features by stating:

> *"As discussed in the Watershed Protection Management Measure, natural drainage features should be preserved as development occurs. This can be done at the site planning stage as well as the watershed planning stage and is desirable because of the ability of natural drainage features to infiltrate and attenuate flows and filter pollutants. Depressional storage areas, commonly found as ponded areas in fields during the wet season or large runoff events, serve the purpose of reducing runoff volumes and trapping pollutants. These areas are usually filled and graded as a site is developed. Cluster development can be used to preserve natural drainage features and depressional storage areas and allow for incorporation of these features into a site design (Dreher and Price, 1992)."*

This justification was published in a document entitled the "g-Guidance" which directly influenced the Management Measures developed in California's NPS Plan.
Further supporting the importance of site design MMs, the g-Guidance states:

> *The following objectives should be incorporated into the site development process:*
> - *During site development, disturb the smallest area necessary to perform current activities to reduce erosion and offsite transport of sediment;*
> - *Where appropriate, protect and retain indigenous vegetation to decrease concentrated flows and to maintain site hydrology;*
> - *Minimize to the extent practicable, the percentage of impervious area on-site;*
> - *Avoid alteration, modification, or destruction of natural drainage features on-site; and*
> - *Design sites so that natural buffers adjacent to coastal waterbodies and their tributaries are preserved.*

Both the g-Guidance and the NPS Plan provide guidance to the Coastal Commission's water quality program in implementing a wide array of management measures and management practices. Although both documents clearly delineate achievable measures to follow, they stop short of applying numeric standards. Legislative history of the federal guidelines clearly indicates that the g-Guidance and related documents are not to have the level of specificity of effluent guidelines. Congress has recognized that the effectiveness of a particular management measure at a particular site is subject to a variety of factors too complex to address in a single set of simple, mechanical prescriptions developed at the state level.

Protecting natural hydrologic features is clearly delineated in the g-Guidance and the NPS Plan. However, the documents do not go so far as to state exactly how this management measure shall be applied; that is, there is not a numeric limit of how much or many drainage features should be preserved. Nonetheless, the proposed grading of ephemeral drainages and canyons is clearly contradicting both the NPS Plan and the federal guidance documents. The ephemeral drainages and canyons are an important natural water quality feature and should be protected to the maximum extent feasible.

Accordingly, one more problem with the proposed landform alteration is that it has negative impacts on water quality, as is explained in the NPS Plan and the g-Guidance. The problems are particularly important where the significant alteration of the east branch of Marblehead canyon is proposed. Although less significant, there would also be an impact on water quality caused by the alteration of the smaller drainage features such as the upper tips of the trident canyon, Drainage A, Drainage B and the various spurs of Marblehead canyon.

4. Landform Alterations to Bluffs

The subject application seeks to make permanent the grading to the bluffs along El Camino Real which was conducted in the early 1990s under emergency coastal development permits. The bluffs were graded to abate hazards to life and property. Prior to the emergency grading, the bluffs along El Camino Real had near-vertical bluff faces. The emergency bluff stabilization project graded the bluff face into a less steep (1.5:1 to 2:1) stepped bluff face. The character of the bluff landform has been significantly changed. However, the creation of 1.5:1 slopes rather than 2:1 slopes, where feasible, reduced the amount of grading needed along the bluff face. In addition, the graded bluff face was contoured with rolling undulations to decrease the manufactured appearance. The grading that occurred was the minimum necessary to stabilize the emergency situation according to the Commission's geologist at that time. Accordingly, landform alteration was minimized. The visual impact of the landform alteration could be further minimized by landscaping the bluff face with native vegetation that is suitable to the habitat type. With the additional visual impact mitigation, at minimum, the Commission could find the grading to the bluffs which occurred under the emergency coastal development permit to be consistent with Section 30251 of the Coastal Act.

F. ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30212.5 of the Coastal Act states:

> *Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

Section 30213 of the Coastal Act states, in relevant part:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

Section 30214 of the Coastal Act states, in relevant part:

> *(a) The public access policies* [listed above] *shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*

(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.

(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. . . .

Section 30221 of the Coastal Act states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Section 30222 of the Coastal Act states:

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223 of the Coastal Act states:

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Section 30252 of the Coastal Act states:

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

1. Land Use

As noted in the project description the applicant is proposing open space areas, a bluff park, trails and bikeways as part of the proposed development (Exhibit 25). The public access features proposed include dedication of an 11.52 acre "bluff" park, an active recreational park including 2.62 acres which are located in the coastal zone, dedication of a 1.0 acre parcel for visitor-serving commercial uses, 4.1 miles of publicly accessible trails including circulation

around the western canyon, Marblehead Canyon, along the bluff top and on the graded bluff face along El Camino Real, and through the proposed parks and residential development, pedestrian and bicycle trails and pathways within or adjacent to proposed Avenida Vista Hermosa, Avenida Pico and El Camino Real. The bluff park would incorporate several 'turf' areas that could be used for picnics and recreation. In addition, the portion of the bluff park near Avenida Pico would include other facilities such as bathrooms, picnic tables, half-court basketball and public parking.

As noted in the project description, the trails are proposed to be constructed by the applicant. The proposed park areas and amenities would be developed in a shared manner. The applicant would dedicate the public park land to the City in fee title and would initially contribute $2 million to the City to fund construction of the parks. Final park master plans would be prepared for approval by the City. If costs for construction of the parks in accordance with the final park master plans exceed the initial $2 million contribution, the applicant would fund the balance for completion of the parks. Except for habitat restoration occurring within the park land being dedicated to the City (which the applicant would undertake), the City would be responsible for building the parks and all amenities including landscaping.

Based on the classification of land uses at the project site identified on proposed Tentative Tract No. 8817, use of land on the 201.38 acre portion of the project site within the coastal zone would consist of approximately 32% (64.55 acres) residential [of which the applicant indicates 5.83 acres is open space], 11.1% (22.3 acres) regional commercial, less than 1% (1 acre) visitor serving commercial, 12.8% (25.75 acres) public open space of which 11.61 acres are public roads and the remainder is park area, and 43.6% (87.79 acres) other open space consisting of habitat areas, detention basins and perimeter open space.

The project site is the last large area of undeveloped land along the coast within San Clemente as well as the last area of undeveloped land between the southern coastal border of Orange County and the Dana Point Headlands. The site is also among the largest, undeveloped, privately owned areas of land within coastal Orange County. The subject site does not have ocean frontage itself; however, it is across the street from a public beach area. The project site is the last undeveloped area with a vacant bluff top that has expansive views of the Pacific Ocean. Most of the other bluff top areas in San Clemente are developed as residential areas.

The Coastal Act places a priority on both providing public access and public recreation opportunities and protecting and enhancing biological habitat. The project site has significant canyons, drainages and bluff top areas that are sensitive and require protection and enhancement. These habitat areas are essentially un-developable land within which very limited types of development may occur such as habitat restoration and passive recreation. The presence of these habitat areas places some constraints on the development of the remainder of the site with more intense uses such as active recreation, commercial, and residential development.

The flat bluff top areas of the project site with views of the Pacific Ocean are the lands that are most suitable to support lower cost coastal recreational uses as encouraged under Sections 30213, 30221 and 30223 of the Coastal Act or to provide visitor serving commercial recreation facilities encouraged under Section 30222 of the Coastal Act. Comparable opportunities to advance the public access and recreation policies of the Coastal Act are not available elsewhere in the San Clemente area because of earlier residential development.

Compared with previous proposals for the site, the current project represents an overall improvement with respect to public access and recreational opportunities. For instance, in the previous proposal (5-99-260), the applicant had proposed construction of residential

development along a majority of the bluff top, thus excluding the public from these areas that are highly suitable for public access and recreation. In the current project, the applicant has pulled the residential development back from the bluff edge, in order that a public park, trail network, and public roadways could be constructed to provide access to the bluff top. Accordingly, the public is afforded the opportunity to recreate along the bluff top.

As described above, the applicant is proposing to create 'turf' areas at selected locations within the proposed bluff park. These turf areas would provide so-called 'blanket space' for picnics and attendant play (e.g. frisbee, ball toss, etc.). As proposed there would be two turf areas between the western canyon and Marblehead canyon (herein 'Turf Area 1' and 'Turf Area 2') and some additional turf area within the portion of the park near Avenida Pico ('Turf Area 3'). Turf Area 1 would be between the western canyon and Marblehead canyon immediately adjacent to a proposed access road and public parking area . Turf Area 2, also between the western canyon and Marblehead canyon, would be located along the bluff top and surrounded by habitat restoration. Turf Area 2 would be accessed via the proposed trail network which includes connections from the access road and parking area mentioned above. Due to its location along the bluff top, Turf Area 2 would provide dramatic, unobstructed upcoast and downcoast views of the coastline including San Clemente pier.

While Turf Area 2 is located in an ideal place for public access and recreation purposes, it is also within an area that is important for habitat connectivity. Uses within habitat connectivity areas must be strictly controlled to ensure that those uses do not prohibit the connective function of the area. Placing an active play area within connective area would disrupt the biological usefulness of the connective habitat. As stated in Section 30214 of the Coastal Act, there are certain circumstances where it is appropriate to limit public access to the right to pass and repass where the fragility of the natural resources in the area are an issue. Turf Area 2 is located in a fragile biological area and would cause an impact upon ESHA that is inconsistent with Section 30240 of the Coastal Act. Thus, Turf Area 2 is inappropriately located.

The Commission would not seek to exclude entirely recreational uses within this area. Rather, the Commission would limit those uses to more passive activities such as trails. These trails could be lined with occasional benches and picnic tables, and overlooks so that the public has the opportunity to linger and enjoy the view. Similarly, Turf Area 3 includes turf that is within ESHA buffer areas. Turf should be excluded from the habitat buffer. These turf areas should not be included within connective areas or habitat buffers because these areas would attract more intensive use that would be disruptive to the habitat.

Given the above described circumstance, some may argue that there is a conflict between the public access policies and the visual resource and biological resource protection policies of the Coastal Act such that the balancing provisions of the Coastal Act are necessary to resolve the conflict. First, Section 30214 of the Coastal Act avoids this conflict by providing for inherent limitations on public access when such access would harm fragile resources. Furthermore, the protection of biological resources and the provision of public access are not mutually exclusive in this case. There is ample space on the project site to place turf areas where they would not be disruptive to habitat, if such turf areas are a high priority. For instance, more active recreational areas could be placed inland of the trident canyon and outside the critical habitat corridor. Alternatively, or as a complimentary facility, some public parking and active recreation areas could be placed inland of the habitat and buffer areas that are located along the bluff top which are west of the western canyon. As noted above, the Commission would not seek to exclude the public from prime viewing opportunities. These opportunities could be enjoyed passively via a recreational trail along the bluff edge with isolated rest stops along the trail with benches and tables that would allow the public to enjoy the views from the bluff top. This more passive use within the habitat and buffer areas would minimize disruption to those habitat areas.

Accordingly, the public access, recreation and biological resource protection policies of the Coastal Act may all be achieved without the need to use balancing provisions.

Therefore, the Commission finds that with the above described changes to the project, the Commission could find the development consistent with the public access and biological resource protection policies of the Coastal Act. Without these modifications, the project must be denied.

2. Pedestrian and Vehicle Circulation and Parking

The proposed project includes residential development that would increase the resident population in the area with attendant traffic and parking demands. In addition, the proposed project includes a commercial component which would increase traffic in the project area and create parking demands. The proposed project also includes a public park which would have even higher parking demands if developed with amenities that would draw people to use them.

The public access and recreation policies of the Coastal Act, including Section 30252, require that new development provide adequate circulation and parking and facilitate transit service to assure that public access to the coast is not adversely impacted by the new development. For instance, increases in traffic associated with the development can adversely impact the public's ability to use traffic-impacted roads to access the coast. In addition, if adequate parking or public transportation to serve the development is not available, on-street public parking and/or public parking lots may be used to support the development. Such use of public parking facilities by the new development would displace members of the public trying to access the coast from those public parking facilities, resulting in adverse impacts to coastal access.

The FEIR and Addendum FEIR address project related impacts upon traffic and parking. These documents show that the proposed project would increase traffic demand in the project area. According to the Traffic Analysis prepared by Austin-Foust Associates, Inc. in Appendix 15.4 of the FEIR the proposed project would result in a "capacity deficiency" at Avenida Pico west of Interstate 5. The Traffic Analysis states that Avenida Pico is targeted for widening from four to six lanes under the City's Regional Circulation Financing and Phasing Program (RCFPP) which would mitigate the deficiency. The Traffic Analysis goes on to state that further study confirms the need to implement the widening. The Traffic Analysis also states that the proposed project, in combination with other development approved in the area (outside the coastal zone), would cause the level of service (LOS) to exceed "D", indicating an adverse impact at those intersections.

The applicant is proposing several off-site and on-site mitigation measures to address adverse traffic and circulation impacts. These measure include the payment of fees to the City for off-site improvements at Avenida Pico west of Interstate 5. These fees would be included in a pool of funds from other projects contributing to the adverse conditions at Avenida Pico and Interstate 5 that are being collected by the City. In addition, on-site measures include the construction of Avenida Vista Hermosa from Interstate 5 to Avenida Pico and intersection improvements at proposed Avenida Vista Hermosa and Avenida Pico. The Traffic Analysis concludes that the proposed measures would provide adequate capacity to serve the proposed development which would avoid adverse impacts upon public access to the coast.

In addition to automobile circulation elements, the proposed project also does provide for non-automobile circulation within the development. For instance, the proposed project includes off-street and on-street pedestrian and bicycle paths and lanes. In addition, these pedestrian and bicycle access improvements can facilitate use of the existing Metrolink train station in the North Beach area across El Camino Real from the proposed bluff park. These proposed

measures would facilitate public access to the coast and non-automobile circulation within the development.

The proposed project includes 141,506 square feet of commercial space within the coastal zone. The proposed project also includes 1,732 parking spaces within the coastal zone which would serve the proposed development. This commercial space and parking within the coastal zone would be contiguous with 533,737 square feet of commercial space and 992 parking spaces located outside the coastal zone. In total, the commercial development within and outside the coastal zone would have 675,243 square feet of commercial space with 2,724 parking spaces.

The Commission has commonly required that commercial development provide one parking space for each 50 square feet of public service area for restaurants and one parking space for each 225 square feet of general commercial. The proposed development has 58,416 square feet of commercial space proposed for use as restaurants. There are no figures provided by the applicant which identify the amount of restaurant public service area there would be within the 58,416 square feet of restaurant space. However, conservatively identifying all 58,416 square feet of restaurant space as public service area, the project restaurant space within the coastal zone would require approximately 1,168 parking spaces. The remaining 83,090 square feet of commercial development within the coastal zone would have a demand of approximately 369 parking spaces. In total, using the Commission's commonly used parking guideline, the commercial development within the coastal zone would have a demand of 1,537 parking spaces. The proposed development provides 1,732 parking spaces within the coastal zone. Of course, this parking demand is likely an overestimate since the public service area within the restaurants will likely be just a portion of the total 58,416 square feet of total floor space. Therefore, on-site parking appears adequate to serve the proposed commercial development.

The proposed project would also have a public park area on-site. The applicant is contributing money to the City for the development of park amenities. These public areas would serve the occupants of the proposed development and the general public. Such use would generate a parking demand. According to the applicants' submittal, there would be public parking spaces for the on-site park. Section 30212.5 of the Coastal Act requires that public facilities including parking areas be distributed throughout an area to mitigate overcrowding and overuse of any single area by the public. Section 30213 encourages lower cost visitor and recreational facilities. Section 30252 of the Coastal Act requires the provision of adequate parking or public transportation to serve the development. Therefore, the Commission would require assurances that adequate facilities would be constructed to assure public access to the proposed on-site parks.

Also, the applicant is proposing public streets as well as privately maintained, publicly accessible streets. This street network would provide access to the various public amenities on the project site. In addition, street parking would provide a reservoir of parking for public use. These publicly accessible facilities are an essential component of the overall public access benefit of the proposed project. Accordingly, the Commission would require assurances that these facilities remain open to the public without restriction throughout the life of the development.

The proposed project would have adverse traffic impacts which require the implementation of mitigation measures. The proposed project also includes public facilities to which supporting parking would need to be assured. The proposed project also includes pedestrian and bicycle ways which contribute to the overall public access program offered and to which public access would need to be assured. Given that the Commission is denying the project on other grounds, the Commission need not determine which mitigation measures would be appropriate.

G. GEOLOGIC STABILITY

New blufftop development poses potential adverse impacts to the geologic stability of coastal bluffs and to the preservation of coastal visual resources. Coastal bluffs in the City of San Clemente are composed of slide-prone bedrock, which is subject to block toppling, and unconsolidated surface soils, which are subject to sloughing, creep, and landsliding.

Section 30253 of the Coastal Act states:

> *New development shall:*
>
> *(l) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

1. Bluff Stabilization

There are approximately 2,600 linear feet of 70 to 100 foot high bluffs on the project site facing upon El Camino Real between the mouth of Marblehead Canyon and the southwestern corner of the project site next to the Colony Cove residential area. There are also an additional 350 linear feet of lower elevation (approximately 30 feet high) bluffs which face upon El Camino Real between the mouth of Marblehead Canyon and the southeastern corner of the project site. These bluffs are coastal bluffs, however, they are no longer subject to wave energy because the Capistrano Shores mobile home park, railroad tracks and El Camino Real all stand between the Pacific Ocean and the base of the bluffs.

The coastal bluffs at the subject site have been subject to mechanical weathering and landsliding. Bluff material from this weathering and landsliding periodically fell on El Camino Real, requiring lane and road closures. In order to address the lane and road closures and to address public safety issues, the applicant graded approximately 1,900 linear feet of the bluffs southwest of the mouth of Marblehead Canyon in 1990 under Emergency Coastal Development Permit 5-90-274G. This grading operation decreased the slope angle from near vertical to a 1.5:1 to 2:1 slope. In addition, surface drains and sub-drains were installed to address hazards from ground water. The applicant is proposing to make this emergency grading permanent under this application.

The applicant has submitted slope stability analyses and seismic stability analyses for the proposed project. The results of these analyses are found in the geologic reports listed in Appendix A. These reports contain several important design recommendations for the construction of cut and fill slopes. Especially important are the following:

1) Cut slopes into the Capistrano formation be stabilized using a stabilization fill

2) Subdrains be installed in the backcut of any stabilization fill that exposes the bedrock/terrace deposit contact

3) Geogrid reinforcement be used to achieve the required factor of safety within the manufactured (fill) slope in cross-section L-L'. Of course, the same factor of safety could be achieved if this spur of Marblehead Canyon was not filled, and development set back an appropriate distance.

These and other recommendations for the construction of cut and fill slopes are outlined in the geologic reports listed in Appendix A. In terms of slope stability, the Commission could find that the development is consistent with Section 30253 of the Coastal Act with the incorporation of the geologists recommendations into the project.

A portion of the bluff overlooking El Camino Real was graded under an Emergency Permit in 1990. The applicant's geologic analyses demonstrate that this area has a factor of safety of greater than 1.5 (static). The most northern section of this bluff, however, was not graded and has a factor of safety of approximately 1.0. According to the applicant's analyses, in order for development to achieve a factor of safety of 1.5 in this area, it must be set back between 85 and 120 feet from the bluff edge, as is proposed for the current design. Nevertheless, the bluff face itself will continue to have a very low factor of safety, and can be expected to fail through both surficial and global landslides. Stabilization of this slope through grading would not be consistent with the Coastal Act, as the area is habitat for a sensitive plant species (i.e. Blochman's dudleya), and that habitat would be compromised by grading. The applicant proposes, however, to minimize the existing instability of the bluff by the installation of a cutoff wall, that would deflect ground water away from the bluff face and toward Drainage "B," where it could be carried away by subdrains installed in the canyon fill. Because an area of alkali wetlands (Wetland Area A) exists near the bluff face, and because the integrity of that wetland could be compromised if it were deprived of ground water contributions, a solid PVC pipe would penetrate the cutoff wall and carry ground water directly to the wetland. As proposed, the unrepaired portion of the bluff overlooking El Camino Real will remain unstable and subject to landslide. The development will not, however, increase instability and may, in fact, increase the stability somewhat through collection and redirection of ground water. This redirection of ground water is an important mitigation measure because ground water recharge is foreseen to increase post-development as a result of residential irrigation.

2. Foundation Designs

Foundation designs for both residential and commercial structures are discussed in a general way in the applicants' submittal, however, no final foundation plans were submitted by the applicant. The purpose of requesting the applicant to supply foundation plans was to ascertain whether the development could take place without being subject to, or contributing to, geologic instability at the site, in accordance with section 30253 of the Coastal Act. Of particular concern is the highly expansive and severely corrosive nature of the soils at the site. In place of actual foundation designs, the applicant supplied a document titled Geotechnical recommendations for the design of foundations for the residential and commercial buildings, Marblehead Coastal Property, tentative tract 8817, City of San Clemente, California, Coastal development permit 5-99-260 by Leighton and Associates dated August 31, 2000. Foundation design parameters were supplied by the applicant which identify the allowable bearing capacities for foundation footings and geotechnical parameters for post-tensioned foundation slab design. The Commission finds that these design parameters are adequate, and the structures should be consistent with section 30253 if built in accordance with the recommendations by Leighton and Associates.

3. Stability of Detention Basins on Canyon Slopes

Each of the three proposed detention basins would be located on the slopes of the existing canyons or near the coastal bluff along El Camino Real. The stability of the detention basins during periods of "rapid drawdown" following their filling through a storm event is a potential issue. When reservoir slopes become saturated, the reduction in effective stress within the soils decreases slope stability. This effect is counteracted to a large degree in a filled reservoir by the

buttressing effect of the weight of the water directed against the slope. A potentially hazardous condition occurs during "rapid drawdown," that is, when the water level drops rapidly (faster than the pore water can drain out of the soil). During rapid drawdown, effective stress may still be low, while at the same time the buttressing effect of the water mass has been removed. The proposed detention basins are to be lined with relatively impermeable material derived from the Capistrano Formation, bedrock at the site, such that saturation of the slope soils would be minimal. Further, analyses submitted by the applicant indicate that slopes associated with each of the three detention basins possess a factor of safety in excess of 1.5 (static) and 1.1 (pseudostatic) for saturated soil conditions. Accordingly, the Commission finds that the detention basins would be stable under rapid drawdown conditions. In order to assure that the detention basins are stable, the Commission would require the applicant to construct the basins consistent with the geologist's recommendations. With conditions, the Commission could find the basins consistent with the requirements of Section 30253 of the Coastal Act.

4. Conclusion – Geologic Stability

There are areas of geologic instability on the project site. However, the applicant has proposed to avoid the unstable areas and/or proposed mitigation measures to address the geologic instability. At minimum, the Commission would require the applicant to comply with the proposed mitigation measures. Other conditions may be appropriate upon further review. With conditions, the Commission could find the project consistent with Section 30253 of the Coastal Act. However, the Commission is denying the proposed project on other grounds outlined elsewhere in these findings. Accordingly, the Commission need not identify all of the conditions that would be required in order to assure compliance with Coastal Act requirements.

H. SHORELINE SAND SUPPLY

Section 30233(d) of the Coastal Act states:

> *(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

Section 30235 of the Coastal Act states:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

The proposed project would entail development of a coastal drainage which presently supplies sand to the beach. The applicant has provided a detailed analysis of sediment yield, sediment transport, channel stability, and sand replenishment to the beach. Sediment yield, the volume of sediment produced from the watersheds on the site, was estimated using five different

techniques which are outlined in their study. Each method has limitations, and some (such as the Universal Soil Loss Equation) are known to yield inaccurate results in arid settings such as at the project site. Unfortunately, however, actual measurements of sediment yield are not available, in part because meaningful values would require monitoring over many years to normalize for annual variation in precipitation patterns.

The estimates of sediment yield derived from these five methods vary by more than an order of magnitude (for example, from 150 to 2709 cubic yards of sediment per year for pre-development conditions). All of the models agree, however, that sediment yield will decrease markedly as a result of development; the average of all models shows a decrease from 111 to 34 cubic yards of sand per year as a result of development. This assessment is based in part on very limited data (3 samples) characterizing the grain size distribution of soil samples at the site, and accordingly may be of limited accuracy.

Although the sediment yield results vary, they do indicate that relatively little sand-size sediment is produced from the site at the present time. Further, the analyses indicates that much of the sand that is produced does not make it to the beach, because of limited sediment transport capacity of Marblehead Canyon, low hydraulic capacity of the culverts under El Camino Real, build-up of sediment within the culverts, and flow restrictions resulting from rip-rap at the culvert outlets. Nevertheless, it is clear that the development will result in a reduction in the amount of sand delivered to the beach. Given the declining width of beaches in San Clemente[57], especially those in the project area, the proposed development must provide mitigation to address the impacts from the project. The mean of the values arrived at by the five modeling methods is 77 cubic yards per year. Although this amount is negligible compared to the volume of sand needed to sustain a beach, it would be an appropriate value to use in establishing a mitigation program.

As part of the emergency grading of the bluffs on the project site in the early 1990s, the applicant stockpiled approximately 30,000 cubic yards of "beach quality" sand within the area of the former sewage treatment plant. Sensitive biological resources are located on and adjacent to this stockpile. However, development of the site may require grading in this area. To the extent that sand can be recovered from this stockpile and used for beach nourishment without adverse impacts to the biological resources present in the stockpile area, the Commission would require the applicant to implement such recovery. If such recovery is not feasible without adverse impact to biological resources and/or the recovery does not yield enough sand to mitigate the anticipated impact of the development on sand supply, the Commission would require the applicant to provide alternative mitigation measures. With the implementation of mitigation, the Commission could find the proposed project, is consistent with Sections 30233(d) and 30235 as they pertain to shoreline sand supply. However, the Commission is denying the proposed project on other grounds outlined elsewhere in these findings.

I. WATER QUALITY

Section 30231 of the Coastal Act states:

> *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 waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation,*

[57] City of San Clemente, Beach Ad Hoc Committee, "The State of San Clemente's Coastal Zone and Beaches", undated.

maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed project would result in the subdivision and grading of the 201.38 acre portion of the project within the coastal zone as well as the construction and use of single family residences, commercial buildings, roads, parking lots, parks, trails and open space areas. The implementation of the project would result in two phases where potential impacts upon water quality would occur: 1) the construction phase; and 2) the post-construction phase including the commitment and use of a 201.38 acre area for commercial, residential, park and open space purposes. Construction phase impacts include erosion and sedimentation of coastal waters during grading. Post construction, the development would result in an increase in impervious surfaces, which in turn decreases the infiltrative function and capacity of existing permeable land on site. The reduction in permeable area therefore leads to an increase in the volume and velocity of dry-weather and storm water runoff that can be expected to leave the site. Run-off from commercial and residential development would be commonly polluted with petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and cleaners; soap and dirt from washing vehicles and patio areas; dirt and vegetation from yard and grounds maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. These pollutant laden waters would leave the developed site, enter the storm drain system and ultimately be discharged to coastal waters. The discharge of these pollutants to coastal waters can cause: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity which both reduce the penetration of sunlight needed by aquatic vegetation which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

Water quality in the City of San Clemente has been subject to degradation in recent years. For instance, according to a recent study titled The State of San Clemente's Coastal Zone and Beaches by the San Clemente Beach Ad Hoc Committee, San Clemente's beaches have been closed on many occasions as a result of water pollution. For instance, the Orange County Health Care Agency reports that Poche Beach, located immediately upcoast of the project site, was posted with a water contamination warning, attributed to urban runoff, for at least a month during 2001. The Ad Hoc Committee study and the long term water contamination warning at Poche Beach point to the need to ensure that new development is constructed in a manner which controls polluted run-off and treats the run-off so that coastal waters are not adversely impacted.

1. Construction Phase

The proposed project would grade approximately 132.7 acres of the 201 acre portion of the project site within the coastal zone. Land disturbing activities, such as grading, expose soil to erosion and dispersion by wind and water. At the project site, soil erosion would cause water quality impairments to coastal waters and excessive siltation of existing wetland habitat. Furthermore, poor construction management practices would lead to the release of pollutants such as fertilizers, pesticides, petroleum products, and other construction materials to sensitive upland habitat areas and wetlands.

The applicant has submitted a document titled Preliminary Stormwater Management Plan dated December 4, 2001, which briefly describes proposed construction phase erosion, sediment and pollution controls. However, no final plan has been submitted. The preliminary plan describes a basic strategy of protecting disturbed areas of soil through minimization of soil disturbance and the duration of exposure, controlling surface runoff, trapping sediment on-site, inspecting and maintaining water pollution controls, and minimizing the steepness of slopes. Non structural controls include establishing a designated area for disposal of wastes and chemical pollutants. Temporary structural controls to be used include silt fences, gravel bag barriers, drainage system outlet protection, sediment basins and traps, erosion control landscaping, gravel construction entrance, and runoff diversion and interceptor swales.

In order to avoid adverse water quality impacts associated with construction, the Commission would likely require the applicant to avoid impacts to wetlands and sensitive upland habitat; install temporary barriers between construction areas and sensitive habitats; to avoid grading and construction within dedicated open space areas, to re-vegetate disturbed areas; to store and dispose of construction materials, equipment, debris and waste in a manner which protects water quality; to prohibit construction activity during certain periods to minimize impacts upon sensitive wildlife; to use best management practices (BMPs) and good housekeeping practices (GHPs) to contain construction materials, chemicals, debris and sediment on the project site; and require that the applicant prepare erosion, sediment and runoff control plans and grading plans.

2. Post Construction Phase

In order to identify for the Commission the non-structural, routine structural and special structural BMPs the applicant is proposing to use to address post-construction water quality impacts from the proposed development, the applicant has submitted the Marblehead Coastal Water Quality Plan (WQP)prepared by RBF Consulting dated November 28, 2001 (Exhibit 14). The applicant's proposed water quality plan is designed with the "treatment train" approach in mind, and includes source and treatment control Best Management Practices (BMPs). The applicant has been granted a 401 water quality certification from the Regional Water Quality Control Board, San Diego Region (Exhibit 22).

The proposed WQP uses four primary methods of nonpoint source pollution (NPS) prevention: 1) source control Best Management Practices (BMPs); 2) structural treatment BMPs; 3) low flow diversions, and 4) 'end of pipe' controls. As defined in the WQP, source control BMPs are techniques that attempt to prevent the introduction of pollutants to the watershed and thus to runoff. Structural treatment BMPs[58], as defined in the WQP, treat, infiltrate, or filter runoff and are located near the source of pollution. The third feature of this treatment train are two low flow diversion systems, one which will divert runoff from the residential area and one that will divert runoff from the commercial development to the San Clemente Wastewater Treatment Facilities for treatment. The "end-of-pipe" treatments, as defined by the applicant, are structural BMPs which filter storm water and nuisance runoff at the storm drain termini.

a. Water Quality Management of Residential Development including Roads

i. Summary of Proposed System

In the residential area, the applicant has proposed both source control and structural treatment practices. All common area landscaping would be planted with drought tolerant, non-invasive native vegetation to reduce the need for pesticide, herbicide, and fertilizer use. Efficient

[58] This is a project-specific definition of 'structural treatment BMPs'. Structural BMPs can also refer to mechanical treatment devices which are not located near the source of pollution. However, this definition is not used in the applicant's WQP.

irrigation systems would be used in common area landscaping in the residential area to limit nuisance flows. Educational materials regarding these and other good housekeeping/source control methods in the garden and around the home would be distributed to all homeowners at the time of purchase and regularly by the homeowners association.

Structural treatment devices include storm drain inserts, trash racks (or equivalent), and three extended detention basin with wetland vegetation treatments. The detention basins include inlet energy dissipaters, a sediment forebay, wetland vegetation treatments, and design specifications to ensure a 40-hour residence time and to meet the 85th percentile requirements. The three extended detention basins will capture the runoff from the entire residential area, including residential streets. The detention basins would also occasionally handle runoff from the commercial development and some inland developed areas when the capacity of the capture and diversion system within the commercial area is exceeded. Water will drain from these basins through stormdrains, and through continuous deflection separator (CDS) units to separate out any large particulates and trash which may have bypassed the storm drain inserts and detention basins. Low flows would be diverted to the municipal wastewater treatment plant for treatment prior to discharge through the offshore wastewater outfall. Any flows in excess of low flows would be discharged to the beach via existing storm drain culverts which pass under El Camino Real. Unlike the diversion system for the commercial area (discussed below), first flush from the residential area would not be captured and sent to the wastewater treatment plant. Rather, first flush would be captured and treated by the vegetation-lined detention basins where suspended solids would settle prior to discharge to the beach via the storm drain culverts. The detention basins would also function as flood control devices controlling the volume and velocity of storm runoff.

ii. Analysis and Modifications of WQP for the Residential Development

As noted above, the runoff from the developed residential site is anticipated to contain petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and cleaners; soap and dirt from washing vehicles and patio areas; dirt and vegetation from yard and grounds maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The proposed water quality treatment system would control runoff in a manner that would reduce the quantity of pollutants leaving the developed site. However, in order to assure the project is consistent with Section 30231 of the Coastal Act with respect to water quality, the Commission would likely require some changes to the water quality plan. For instance, the Commission would likely require the applicant to assure the complete diversion of nuisance flows to the wastewater treatment facility, would require the applicant to more fully mitigate the impacts upon water quality caused by residential car washing; require the applicant to provide efficient irrigation systems throughout the development and the use of native, drought tolerant plants to the maximum extent feasible throughout the development in order to minimize the use of irrigation on a permanent basis. Deed restrictions would likely be required to assure that all existing and future owners are aware of the requirements. In addition, in order to minimize impervious surface area, the applicant should carefully consider road widths such that they are wide enough to handle anticipated traffic demands but not so wide as to be detrimental to water quality.

b. Water Quality Management of Commercial Development

i. Summary of Proposed System

The water quality management system of the commercial development includes source control measures, structural treatment devices, and diversion of nuisance flows and up to the first flush (0.8 inch rainfall in this location) to the municipal wastewater treatment facility for treatment.

Source control measures include regular street and parking lot sweeping, regular sweeping of delivery areas and loading zones, spill control measures, distribution of educational materials to commercial tenants, minimizing pesticide and fertilizer usage, litter control, and regular inspection and maintenance. The WQP also includes a prohibition on certain land uses within the regional commercial center including any use involved with manufacturing processes, vehicle repair, sales or service (including fueling), cleaning facilities, laundry cleaners or laundromats, hospitals or surgery/wellness centers, veterinary clinics, animal hospitals or animal boarding facilities.

Structural treatment devices include catch basin and storm drain inlet inserts, trash racks, bars or grated inlet covers, and elevated and covered trash receptacles. In addition, 'low flows' and first flush from storm events would be diverted to the municipal wastewater treatment facility for treatment. First flush would be captured in an underground storage tank system located under the commercial development for controlled release to the wastewater treatment facility. The release to the treatment plant would be regulated electronically by City operators. Furthermore, any runoff which exceeds the capacity of the underground storage facility or diversion system would be sent to the detention basins in the residential area. Finally, end of pipe treatment includes the installation of CDS units.

Also, as noted elsewhere in these findings, the applicant is proposing to grade and reserve a 1.0 acre lot (Lot 352) for visitor serving commercial purposes adjacent to the proposed park at Avenida Pico. No commercial structures are proposed for this site at this time. The proposed WQP does not include any treatment for runoff from this site.

ii. Analysis and Modifications of WQP for the Commercial Development

As noted above, the runoff from the developed commercial site is anticipated to contain petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and cleaners; soap and dirt from washing vehicles and patio areas; dirt and vegetation from grounds maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The proposed water quality treatment system would control runoff in a manner that would reduce the quantity of pollutants leaving the developed site. However, in order to assure the project is consistent with Section 30231 of the Coastal Act with respect to water quality, the Commission would likely require that the water quality plan incorporate some changes and assurances. For instance, the Commission would likely require the applicant to fully mitigate impacts associated with grease generated from the proposed restaurants; that trash receptacles and dumpster areas be designed to prevent entrainment of pollutants in runoff; and use of the best technology feasible for street sweeping.

c. Water Quality Management of Perimeter Roads - Avenida Pico and El Camino Real

A letter from RBF Consulting to California Coastal Commission, dated April 26, 2002, describes the proposed treatment of the perimeter roads: Avenida Pico and El Camino Real. Both of these roads would be widened to accommodate the increase in traffic from this development.

i. Summary of Plan for Avenida Pico

Drainage on the portion of Avenida Pico that is within the project site flows in two directions, toward the northeast and to the southwest with the division point just northeast of the proposed intersection with proposed Avenida Vista Hermosa.

The southwesterly drainage area totals 8.5 acres and encompasses runoff from Avenida Pico, a portion of proposed Avenida Vista Hermosa, a proposed public parking lot (Lot E) accessible from Avenida Pico for the public park, and open space along the perimeter of the development. The applicant proposes to treat runoff up to the 85th percentile storm event with storm drain inlet inserts and a Continuous Deflection Separation (CDS) unit. In addition, the applicant has expressed willingness to construct a bioswale within the public park (Lot F) between a parking lot for the park (Lot E) and Avenida Pico as part of this treatment train.

Treatment of runoff from the northeasterly drainage area of Avenida Pico is not specified by the applicant. Also, nuisance flows from the Avenida Pico drainage area would not be diverted to the wastewater treatment plant as is proposed elsewhere in the project area.

ii. Analysis and Modifications of WQP for Avenida Pico

The proposed development includes widening 2,100 linear feet of Avenida Pico by 23 feet. The widening would consist of increasing the width of the southbound vehicle lane from 20 feet to 28 feet (to accommodate 2 lanes), plus a 7 foot wide bike lane and an 8 foot wide sidewalk. In addition, the proposed project increases the intensity of use of the site and surrounding roadways, with accompanying increases in pollution.

The applicant proposes to treat only a portion of the runoff from the portion of Avenida Pico to be widened. Even though the road would be widened along the entire frontage of the site, the treatment is only proposed for the area of road stretching from the intersection of Avenida Vista Hermosa to the northeast edge of Parking lot E. The approximately 250 foot stretch of Avenida Pico from the northeast edge of parking lot E to the intersection of El Camino Real is not included in the treatment. In addition, the applicant does not propose treatment of the runoff from the approximately 600 foot stretch of Avenida Pico from Avenida Vista Hermosa to the inland extreme of the property.

The Commission finds that runoff from all new road surfaces would be required to be filtered, infiltrated or otherwise treated in accordance with the 85th percentile requirement. The applicant therefore would likely be required to design appropriate BMPs to treat, filter, or infiltrate runoff from all new road development. In addition, in order to minimize impervious surface area, the applicant should carefully consider road widths such that they are wide enough to handle anticipated traffic demands but not so wide as to be detrimental to water quality.

iii. Summary of WQP for El Camino Real

Runoff from the proposed El Camino Real widening would be filtered by catch basin and storm drain inlet inserts and CDS units fitted with oil absorbent pads. In addition, any low flows would be diverted to the wastewater treatment plant for treatment. The applicant states that, due to limited space between the proposed to be widened roadway and the bluff along El Camino Real, installation of a bioswale to treat runoff from the portion of El Camino Real within the project area would require grading of the bluff face and the construction of retaining walls. The applicant has indicated that the proposed BMPs provide the maximum practicable approach.

iv. Analysis and Modifications of WQP for El Camino Real

The post-project drainage pattern for El Camino Real is not clear in the applicant's submittal. However, this road is presently near-level, with a very slight slope away from the proposed storm drains. In order to assure that runoff from El Camino Real is treated, filtered or infiltrated, it is important that the applicant design the expansion of El Camino Real to drain runoff toward the proposed treatment measures.

Nuisance flows typically originate from irrigated landscaped areas or areas where wash-down activities occur. Due to the absence of proposed irrigated landscaped areas on the site along El Camino Real (the bluffs would be landscaped with native vegetation that does not require permanent irrigation) and potential wash-down areas within the project site along El Camino Real, nuisance flows are anticipated to be nominal. Furthermore, except for extremely small rainfall events which would create runoff from the roads below the low flow threshold, the low flow diversion is not expected to provide significant treatment to runoff from this portion of the development.

Also, the Commission would likely agree with the applicant that installation of bioswales along the toe of the bluff to filter runoff from El Camino Real would not provide enough of a water quality benefit to warrant grading and construction of retaining walls along the bluff face. Such construction which would likely cause significant erosion, and have adverse visual and habitat impacts. Therefore, the Commission would likely require the direction of runoff toward treatment systems, treatment of runoff by catch basin and storm drain inlet inserts, CDS units, and low flow diversions. In addition, in order to minimize impervious surface area, the applicant should carefully consider road widths such that they are wide enough to handle anticipated traffic demands but not so wide as to be detrimental to water quality.

d. Parks, Trails and Open Space

i. Summary of WQP for Parks, Trails and Open Space

Except for some selected locations, runoff from the proposed parks, trails and open spaces would be captured and treated by the treatment system for the residential and commercial areas and perimeter roads. The areas not receiving treatment include the open space habitat area at the southwestern corner of the site along the bluffs (all or portions of proposed Lots N, O, P, R and M), the Blochman's dudleya reserve near the corner of Avenida Pico and El Camino Real (proposed Lot H), and a portion of the active park at the northwest corner of the site (portion of proposed Lots FFF and HHH). Initial plans submitted by the applicant also excluded the public park and parking lot at Avenida Pico (Lots E and F) and some perimeter open space areas along Avenida Pico. A letter dated April 26, 2002, proposes treatment of runoff from Lots E and F and some excluded perimeter open spaces in conjunction with treatment of runoff from Avenida Pico.

ii. Analysis and Modifications of WQP for Parks, Trails and Open Space

Active park areas may be landscaped with turf areas which are often managed with chemical pesticides, herbicides and fertilizers. Trash is also an issue at active park areas. Trash and chemicals often become entrained in runoff and contribute to water pollution. In order to minimize such impacts, the WQP would likely be required to include provisions to control trash and minimize the use of chemical pesticides, herbicides, and fertilizers to the maximum extent practicable in all passive and active recreational open space and other park land in the project site. The use of Integrated Pest Management strategies to control pests would be encouraged.

e. Maintenance of BMPs

i. Summary of Proposed Maintenance

Proposed maintenance and maintenance responsibilities for water quality BMPs are described in the WQP in Exhibits 9 and 10 dated February 5, 2002, prepared by GeoSyntec. The WQP outlines the recommended maintenance for source controls (public education, trash

receptacles, street sweeping, landscape irrigation systems, and pesticide fertilizer management) and structural treatment BMPs (racks, bars, and grates at inlets; catch basin insert filters and adsorbents; CDS units; underground detention and storage; wetland detention basins; and diversion systems).

ii. Analysis and Modifications of WQP Relative to Maintenance of BMPs

The proposed inspection and maintenance programs for BMPs are preliminary in nature and would need to be updated upon full occupation and operation of the development when the types of inspection and maintenance procedures that are appropriate on this site become more clear. The inspection and maintenance plan states that "frequencies [of structural BMP inspection and maintenance] are subject to change based on inspection and review." The Commission could find that this type of adaptive maintenance would be appropriate; however, any changes would likely be required to be submitted to the Executive Director for review and approval. The Commission would also likely require the applicant to provide assurances related to the establishment and maintenance of wetland vegetation within the detention basins.

f. Storm Water Quality Monitoring Plan

The "Marblehead Stormwater Quality Monitoring Plan" was designed by GeoSyntec Consultants and described in the February 5, 2002, Addendum Sheet to the Marblehead Coastal Water Quality Plan dated November 28, 2001.

i. Summary

The stated purpose of the monitoring plan is "...to document the effectiveness of the water quality controls or Best Management Practices (BMPs) described in the Marblehead Coastal Water Quality Plan." The constituents to be addressed in the monitoring plan include pathogen indicators, toxic chemicals (e.g. trace metals, pesticides), and trash and debris. As designed, this water quality monitoring program would begin after development has been completed and would monitor only storm flows. If data demonstrated that "trigger" conditions were met, a reevaluation of the overarching Water Quality Plan would occur (trigger conditions are exceedences in the water quality objectives that were set by this study).

ii. Analysis and Modifications of WQP Relative to the Stormwater Quality Monitoring Plan

The proposed WQP mitigates the proposed development's impacts upon water quality through a treatment train of non-structural and structural BMPs. The effectiveness of the WQP is reliant upon continual maintenance of these BMPs. A water quality monitoring plan is important to assure that the WQP is effectively mitigating water quality impacts caused by the development and to assure that deficiencies are addressed. However, in order to assure the monitoring plan is consistent with Section 30231 of the Coastal Act, certain changes and assurances in the plan would be required. For instance, the Commission would likely require the applicant to provide baseline data so that the relative effectiveness of BMPs could be analyzed. In addition, monitoring of the quality of water discharged from the site would likely need to be implemented, with a contingency plan to correct deficiencies in the plan.

g. Water Quality Impact Mitigation Standards

In order to find the proposed development consistent with the water and marine resource policies of the Coastal Act, the Commission would likely require the incorporation of the proposed Best Management Practices, with certain modifications, which are designed to control

the volume, velocity and pollutant load of stormwater leaving the developed site.

Critical to the successful function of post-construction structural BMPs in removing pollutants in stormwater to the Maximum Extent Practicable (MEP), is the application of appropriate design standards for sizing BMPs. The majority of runoff is generated from small storms because most storms are small. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small, more frequent storms, rather than for the large infrequent storms, results in improved BMP performance at lower cost.

The Commission finds that BMPs would likely be required to be designed to assure that post-development peak runoff rates and average volume from the developed site shall not exceed pre-development levels for the 2-year 24-hour storm runoff event. Furthermore, post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs.

3. Summary

Without mitigation, the proposed project would have significant adverse impacts upon coastal waters. The applicant has proposed certain construction phase and post-construction phase mitigation measures. The Commission has analyzed these proposed measures and determined that some modifications to the plan would likely be required to assure compliance with the Coastal Act. The measures outlined above would be the minimum required and the Commission may require further modification upon detailed review of any development proposed for the site. With modifications, the Commission could find the development consistent with Section 30231 of the Coastal Act as it pertains to the protection of water quality through the use of best management practices. However, the Commission is denying the proposed project on other grounds, including grounds outlined in Section 30231 of the Coastal Act, as outlined elsewhere in these findings.

J. CULTURAL RESOURCES

Section 30244 of the Coastal Act states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

According to the EIR, several cultural resource investigations of the Marblehead site have occurred over time, including investigations in 1974, 1979, 1989, and 1990. These investigations revealed the presence of one cultural resource site, CA-ORA-1258, along the bluffs on the Marblehead site. A subsequent study performed in 1996 failed to re-locate CA-ORA-1258. It is suspected that the emergency grading which occurred in 1990 destroyed much of CA-ORA-1258. No other archeological sites have been recorded on the Marblehead property, according to the EIR. However, scattered evidence of archaeological and paleontological resources have been found. For instance, the survey conducted in 1996 found a small basalt denticular flake in the vicinity of the bluffs that may have been a tool. Most recently, a survey conducted in November 2002 found four flaked stone artifacts in the vicinity of the reported location of CA-ORA-1258. In addition, grading activities could reveal archaeological or paleontological resources not visible from the surveys which occurred to date.

The 1996 and 2002 surveys suggest that there is a high likelihood that buried cultural resources will be encountered during grading of the site.

To the extent feasible, the applicant would likely be required to mitigate for prior impacts to cultural resources on the site. For example, where development would occur in stockpile areas suspected to contain the remains of cultural sites, controlled grading could be required to assure that cultural resources within those stockpiles are identified and handled in a manner deemed appropriate by archeologists, culturally affiliated Native Americans and the Executive Director. In addition, the Commission would, at minimum, consider the following requirements. In order to assure that development is undertaken consistent with Section 30244 of the Coastal Act, the Commission could find that written evidence must be submitted which demonstrates that the State Office of Historic Preservation has determined that no additional archeological surveys must be conducted prior to commencement of construction. Also, during the course of grading or other construction activities cultural resources could be uncovered. Therefore, the Commission could require that archaeological monitors qualified by State Office of Historic Preservation (OHP) standards and a Native American monitors appointed consistent with the standards of the Native American Heritage Commission (NAHC) shall be present on the site during all project grading. If cultural deposits or grave goods (as defined by OHP) are uncovered during construction, the Commission could require that work must stop until the archaeological monitor and the Native American monitor can evaluate the site and, if necessary, develop a treatment plan approved by OHP and the Executive Director. Upon review of the treatment plan, the Executive Director would determine whether an amendment is required. If human remains are found, the Commission could require that the applicant carry out identification and require in-situ preservation, recovery or reburial (or a combination thereof) consistent with State Law and the wishes of the Native American Most Likely Descendent. The Commission could require, at minimum, the implementation of the above measures, in order to assure that the project would be consistent with Section 30244 of the Coastal Act. However, the Commission is denying the proposed project on other grounds and thus has not identified all of the measures that would be required in order to assure compliance with the Coastal Act.

K. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. On April 10, 1998, the Commission certified with suggested modifications the IP portion of the Local Coastal Program. The suggested modifications expired on October 10, 1998. The City submitted a second IP in June 1999. That submittal was subsequently withdrawn in October 2000. All documents certified by the Commission excluded the project site, therefore, there is no certified LUP or IP for the project site.

The Commission has found that the proposed project is not consistent with Sections 30231, 30240, 30250 and 30251 of the Coastal Act, as explained above. In addition to conflicts with the Chapter 3 policies of the Coastal Act, the proposed project would result in the alteration of natural landforms and impacts upon biological resources that are also inconsistent with the land use plan that has been certified for the remainder of the City. Therefore, approval of the proposed development would prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a). Therefore, the project must be denied.

L. ALTERNATIVES

The proposed project would result in the large scale alteration of natural landforms on the project site. Most significantly, the proposed grading would result in the fill of the trident canyon, the fill of the deeper portions of the east branch of Marblehead Canyon and the grading and fill of significant spurs off of the main branch of Marblehead Canyon. This landform alteration causes significant impacts upon natural landforms as well as upon visual quality. The landform alteration also has significant adverse impacts upon ESHA and ESHA buffers as well as other biological resources on the site.

For all of the above reasons, and because the inconsistencies between the proposal and the mandates of the Coastal Act cannot be easily fixed through the imposition of a discrete set of conditions, the Commission is denying the proposal. However, denial of the proposal does not deny all economically beneficial or productive use of the applicant's property or unreasonably limit the owner's reasonable investment-backed expectations of the subject property. The applicant has myriad alternatives available to it through which it could build out the site in a manner consistent with the mandates of the Coastal Act. One of those alternatives is the following (though it is by no means the only possible alternative available to the applicant:

Development could be concentrated on the relatively flat land that is outside of the canyons. Such concentration could minimize or avoid the landform alteration within the canyons and could minimize or avoid the attendant impacts associated with those landform alterations including adverse impacts upon ESHA and other biological resources.

M. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of coastal development permits to be supported by a finding showing the permit, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

As explained above and as incorporated here by reference, the proposed project is inconsistent with Sections 30231, 30240, 30250 and 30251 of the Coastal Act due to adverse impacts upon natural landforms, adverse impacts upon biological resources including Blochman's dudleya, coastal sage scrub and California gnatcatcher and wetlands; and adverse visual impacts related to landform alteration. The Commission has also found that there are feasible alternatives which would avoid such impacts. Therefore, the Commission finds that the proposed project is inconsistent with the California Environmental Quality Act. Therefore, the proposed project must be denied.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS AND OTHER APPROVALS

Plans

Barratt American Homes 2001, "Marblehead Coastal 7000 S.F. Lot Product", 5 p. plans depicting site plan and elevations for single family residences dated October 7, 2001

Bucilla Brooklyn Architecture 2001, "5000 S.F. Lots, Single Family Detached, Marblehead Coastal, San Clemente, California, Barratt American", 5 p. plans depicting site plan and elevations for single family residences dated November 6, 2001

KMA Architecture and Engineering 2001, "Marblehead Promenade at San Clemente", 20 p. plans depicting site plans and elevations of commercial center dated December 6, 2001

RBF 2002, "Marblehead Coastal, CDP Application No. 5-01-288", 16 p. briefing booklet with exhibits dated November 6, 2002.

RBF 2002, "Marblehead Coastal, Revised Coastal Development Permit Application and Amended Project Description, California Coastal Commission Submittal October 7, 2002, Revised October 25, 2002", binder including cover letter dated October 25, 2002 with attachments "A" through "E".

RBF 2002, "Marblehead Coastal, Amended Tentative Tract No. 8817, City of San Clemente, County of Orange, California", Sheets 1 and 2, dated October 25, 2002, Prepared by RBF of Irvine, California.

RBF 2002, "Marblehead Coastal Amended Residential Site Plan #97-16, City of San Clemente, County of Orange, California", Sheet 2, plot date October 25, 2002.

RBF 2002, "Marblehead Coastal, CDP 5-01-459, California Coastal Commission Resubmittal", binder including cover letter dated February 5, 2001 with attachments identified as attachments "1" through "12" dated February 5, 2002.

RBF 2001, "Marblehead Coastal, Amended Tentative Tract No. 8817, City of San Clemente, County of Orange, California", Sheets 1 and 2, dated December 6, 2001, Prepared by RBF of Irvine, California.

RBF 2001, "Marblehead Coastal Ocean View Park Landscape Concept Plan Amended Residential Site Plan #97-16, City of San Clemente, County of Orange, California", Sheet 3, dated December 5, 2001, prepared by RBF of Irvine, California.

RBF 2001, "Marblehead Coastal Landscape Concept Plan Amended Commercial Site Plan, City of San Clemente, County of Orange, California", dated December 5, 2001

RBF 2001, "Marblehead Coastal Landscape Concept Plan Amended Residential Site Plan #97-16, City of San Clemente, County of Orange, California", Sheet 2, dated December 5, 2001

RBF 2001, "Marblehead Coastal Amended Residential Site Plan #97-16, City of San Clemente, County of Orange, California", Sheet 2, plot date December 6, 2001.

RBF 2001, "Marblehead Coastal Attachments", binder of miscellaneous attachments identified as attachments "A" through "R", dated December 6 2001

Robert Hidey Architects 2001, "Marblehead Coastal 6000 S.F. Lot Product", 5 p. plans depicting site plan and elevations for single family residences dated November 7, 2001

Scheurer Architects 2001, "Marblehead Coastal Single Family Cluster Homes", 4 p. site plans and elevations dated December 5, 2001

Environmental Impact Reports

Ed Almanza and Associates 1991, "Marblehead Coastal Bluffs Emergency Grading Program Focused Environmental Impact Report (SCH No. 90011085)", dated April 15, 1991

David Evans and Associates, Inc. 2000, "Addendum to Final Environmental Impact Report" dated February 2000

David Evans and Associates, Inc. 1998, "Final Environmental Impact Report, Marblehead Coastal, General Plan Amendment 96-01, Specific Plan 95-02, Tentative Tract Map (SCH No. 95091037)", prepared for the City of San Clemente prepared June 1998 and adopted August 5, 1998.

Biology, Hydrology and Water Quality

City of San Clemente 2002, "Updated Biological Resources Information to Support Special 4(d) Rule Interim Habitat Loss Mitigation Plan of the Marblehead Coastal Development", 16 p. report, dated January 24, 2002

Exponent 2002, "Additional explanation to the California Coastal Commission of soil infiltration processes for pre- and post-grading conditions, Marblehead Coastal Project, San Clemente, CA", 3 p. Report dated 3 April 2002 and signed by D. Hamilton (CE 42210).

Exponent, Inc. 2001, "Water balance for the revised Marblehead Coastal project site (San Clemente, California) due to multi-decadal shifts in rainfall patterns and development", 47 p. dated 4 December 2001 and signed by D. L. Hamilton (CE 42210).

Exponent 2001, "Response to comments dated 22 February 2002 from the California Coastal Commission on the water balance for the revised Marblehead Coastal Project", 5 p. Report dated 5 March 2001 and signed by D. Hamilton (CE 42210).

GeoSyntec Consultants 2002, "Attachment 5 of Marblehead Coastal Resubmittal (February 5, 2002): Addendum Sheet to the Marblehead Coastal Water Quality Plan Previously Dated November 28, 2001", dated February 5, 2002.

GeoSyntec Consultants 2001, "Stormwater Quality Evaluation Report for the Marblehead Coastal Development, San Clemente, California" dated January 3, 2001.

Glenn Lukos Associates 2002, "Marblehead Coastal Revised Vegetation Mapping Habitat Descriptions and Revised ESHA Boundaries", 8 p. report plus attachments dated October 10, 2002

Glenn Lukos Associates 2002, "Additional Information Intended to Address ESHA determination for Marblehead Coastal Site, San Clemente", 7 p. letter dated August 12, 2002 and signed by T. Bomkamp

Glenn Lukos Associates 2002, "Fire Protection Requirements and Potential Effects on California Gnatcatcher, Marblehead Coastal, San Clemente, California", 7 p. letter to USFWS and CDFG dated July 16, 2002

Glenn Lukos Associates 2002, "Marblehead Coastal Habitat Management Plan Conformance with Orange County Fire Authority Requirements", 2 p. letter dated May 3, 2002 and signed by T. Bomkamp.

Glenn Lukos Associates 2002, "Water quality functions of the upper reaches of ephemeral drainages on Marblehead coastal site, San Clemente, California", 4 p. letter report dated 27 March 2002 and signed by T. Bomkamp.

Glenn Lukos Associates 2002, "Burrowing Owl Survey, Marblehead Coastal, Orange County", 4 p. letter report dated March 6, 2002 and signed by T. Bomkamp

Glenn Lukos Associates 2002, "Expanded information on alkali marsh habitats in southern Orange County", 8 p. letter report dated 5 March 2002 and signed by T. Bomkamp.

Glenn Lukos Associates 2002, "Evaluation of Biological Resource Issues Noted in January 4, 2002 Letter from California Coastal Commission Related to Development of the Marblehead Coastal Site, San Clemente, California", 8 p. letter dated February 4, 2002 and signed by T. Bomkamp

Glenn Lukos Associates 2002, " Results of Expanded Coyote Surveys on the Marblehead Project Site, City of San Clemente, Orange County, California", 10 p. letter to RBF Consulting dated February 4, 2002 and signed by T. Bomkamp

Glenn Lukos Associates 2001, "Revised Shading Study Associated with Two Proposed Bridges, Spanning Existing Wetlands on the Marblehead Coastal Site, San Clemente, California", 6 p. letter to RBF Consulting dated December 4, 2001 and signed by T. Bomkamp.

Glenn Lukos Associates 2001, " Results of Coyote Surveys on the Marblehead Project Site, City of San Clemente, Orange County, California", 7 p. letter to RBF Consulting dated December 4, 2001 and signed by T. Bomkamp

Glenn Lukos Associates 2001, "Submittal Requirements of Coastal California Gnatcatcher Surveys on the Marblehead Project Site, City of San Clemente, Orange County, California", letter report to U.S. Fish and Wildlife Service dated August 17, 2001.

Glenn Lukos Associates, "Shading Study Associated with Proposed Bridges Spanning Existing Wetlands on Marblehead Coastal, San Clemente, California", letter to RBF Consulting

Glenn Lukos Associates 2000, "Changes to Upland Coastal Scrub Vegetation on Marblehead Coastal Site between 1976 and 2000", letter to RBF Consulting dated September 28, 2000 and affiliated documentation compiled and submitted by RBF Consulting dated September 29, 2000.

Glenn Lukos Associates 2000, "Wetlands Avoidance of 'Area A'", letter to RBF Consulting dated September 20, 2000

Glenn Lukos Associates 2000, "Wetlands Avoidance of 'Area C'", letter to RBF Consulting dated September 20, 2000

Glenn Lukos Associates 2000, "Hydrological Requirements of Alkali Marsh and Alkali Meadow Vegetation on Marblehead Site, San Clemente, California", letter to RBF Consulting dated August 22, 2000.

Klein-Edward Professional Services 2001, "Breeding Season Surveys for Raptors on the Marblehead Coastal Site – 2001", letter report to R.J. Meade Consulting dated August 21, 2001.

Klein-Edwards Professional Services 2001, "Discussion of Raptor Use of the Marblehead Coastal Project Site", letter to R.J. Meade Consulting dated February 5, 2001

Klein-Edwards Professional Services 2001, "Preliminary Results of Winter Raptor Survey for the Marblehead Coastal Project", letter to R.J. Meade Consulting dated January 31, 2001

Leighton and Associates 2000, "Assessment of Pre and Post Development Groundwater Conditions Utilizing Site-Specific Data, Marblehead Coastal Project, City of San Clemente, California", letter to MT No. 1, LLC dated August 22, 2000

Leighton and Associates 2000, "Anticipated Groundwater Conditions, Marblehead Coastal Project, City of San Clemente, California", letter (Project No. 881898-009) to MT No. 1, LLC dated June 15, 2000.

Rancho Mission Viejo 2000, "Confirmation of Available Mitigation Lands and Credits", letter to MT No. I, LLC dated July 7, 2000

RBF 2002, "Small Mammal Passable Fencing", 1 p. letter plus exhibit dated November 27, 2002

RBF 2002, "Revised Marblehead Hydrology Analysis", 2 p. letter plus exhibit dated November 20, 2002.

RBF 2002, "Habitat Management Plan Update", 9 p. insert plus exhibits dated October 25, 2002.

RBF 2002, "Water Quality Plan Update", 1 p insert plus exhibit dated October 24, 2002.

RBF 2002, "Proposed Water Quality Treatment along Project Perimeter Streets" , letter from Mike Burke to California Coastal Commission dated April 26, 2002.

RBF 2002, "Existing sewer system capacities"; letter from Michael H. Nihan to the California Coastal Commission dated April 18, 2002.

RBF Consulting 2001, "Marblehead Coastal: Preliminary stormwater management plan", report dated 4 December 2001 and signed by B. Phillips (RCE 38635) and D. de Chambeau (RCE 57924).

RBF 2001, "Marblehead Coastal Project: Habitat Management Plan", dated 28 November 2001.

RBF 2001, "Marblehead Coastal Water Quality Plan", dated November 28, 2001; Addendum Sheet received April 17, 2002; Revision dated April 18, 2002; Revised Exhibit 8 'Marblehead Stormwater Quality Monitoring Plan by GeoSyntec Consultants; Exhibit 9 Recommended Maintenance Activities by GeoSyntec Consultants; Exhibit 10 Proposed Responsibility and Funding for Marblehead Coastal Development Water Quality Best Management Practices
RBF 2000, "Marblehead Coastal Project, Preservation, Restoration and Management Plan for Wetlands, Sage Scrub and Other Upland Habitats", dated July 7, 2000

RBF 1997, "Marblehead Coastal Resource Management Plan", dated October 1997 and revised January 1998.

RECON 2002, "Letter Describing the Select Plan Palette for Fire Risk Reduction at the Marblehead Coastal Project – San Clemente, California (RECON Number 2733M)", 2 p. letter to CDFG and USFWS dated July 16, 2002 and signed by M. Dodero.

RECON 2001, "Year 6 Annual Report for the Blochman's Dudleya Translocation Plan for Marblehead Bluffs", 31 p. biological report dated October 11, 2001 and signed by M. Dodero.

RECON 2000, "Blochman's dudleya Translocation Project at Marblehead Bluff", letter to California Coastal Commission dated June 19, 2000

R.J. Meade Consulting 2000, Memorandum from R.J. Meade Consulting to California Coastal Commission regarding coastal sage scrub, on-site and off-site mitigation, and environmentally sensitive habitat areas dated November 28, 2000.

Roberts, F.M. 2000, "Alkali Wetlands within the Marblehead Development Project", letter to San Clemente Citizens for Responsible Development dated February 29, 2000

Roberts, Fred M., Jr. 1991, "1991 Biological Assessment Update Marblehead Coastal Project Site, San Clemente, California", 9 p. biological report prepared for Ed Almanza & Associates dated January 23, 1991 by Fred M. Roberts, Jr. contained within Appendix E of Marblehead Coastal Bluffs Emergency Grading Program Focused Environmental Impact Report (SCH No. 90011085) prepared by Ed Almanza and Associates dated April 15, 1991

Geology, Landform Alteration and Sand Supply

Lawson and Associates 2001, "Geotechnical review of the proposed grading plan for Marblehead Coastal, Amended Tentative Tract 8817, City of San Clemente, California", 36 p. geotechnical report dated 19 October 2001 and signed by T. Lawson (CEG 1821 PE 53388).

Lawson and Associates 2002, "Response to a verbal question raised by the staff of the California Coastal Commission regarding the stability of the detention basins during rapid drawdown, Lusk Marblehead, Amended Tentative Tract 8817, City of San Clemente, California", 1 p. geotechnical letter report dated 19 March 2002 and signed by T. Lawson (CEG 1821 RCE 53388).

RBF 2002, "Revised Earthwork Volume – Cut and Fill Map", 1 p map dated October 25, 2002.

RBF Consulting 2002, "Marblehead Coastal 5-01-459, Reply to staff notice on incomplete action (1-4-02)", 6 p. report dated 5 February 2002 and signed by M. H. Nihan.

RBF Consulting 2002, "Marblehead Coastal Sediment Study", 6 p. report dated April 2002 and signed by D. de Chambeau (RCE 5794).

RBF Consulting 2002, "Coastal Development Permit application 5-01-459, Marblehead Coastal, San Clemente", 2 p. letter report dated 3 May 2002 and signed by M. J. Burke.

RBF Consulting 2002, "Coastal Commission staff top of slope (Exhibit 32): Comparative analysis of outside and within TOS", 1 sheet, dated 3 May 2002.

RBF Consulting 2002, "Applicant submitted top of slope (Post-1990 Topo): Comparative analysis of outside and within TOS", 1 sheet, dated 3 May 2002.

RBF Consulting 2002, "Marblehead Coastal: Change in slope analysis with "top of slope" delineated", 1 sheet, dated 3 May 2002.

RBF Consulting 2002, "Marblehead Coastal: Slope analysis with "top of slope" delineated", 1 sheet, dated 3 May 2002

RBF Consulting 2002, "Marblehead Coastal: Illustrative site plan with top of slope" delineated", 1 sheet, dated 3 May 2002

Lawson & Associates 2002, "Geotechnical Review of the Proposed 314 Grading Plan for Marblehead Coastal, Amended Tentative Tract 8817, City of San Clemente, California", 5 p. letter to Jim Johnson, MT No. I, LLC dated October 25, 2002.

Leighton and Associates 2000, "Recommendations for Slope Setbacks, Marblehead Coastal, Tentative Tract Map 8817/Site Plan Permit 97-16, City of San Clemente, California", Letter to MT No. 1, LLC dated April 12, 2000.

Leighton and Associates 2000, "Response to California Coastal Commission Review Sheet dated May 17, 2000, Marblehead Coastal, Tentative Tract Map 8817, Coastal Development Permit Application 5-99-260, City of San Clemente, California", Letter to MT No. 1, LLC dated June 15, 2000.

Leighton and Associates 2000, "As-Graded Geotechnical Report of Rough Grading Operations Emergency Bluff Stabilization – Phase I, Marblehead Coastal, City of San Clemente, California", geologic report (Project No. 881898-009) dated June 15, 2000.

Leighton and Associates 2000, "Geotechnical Review of Bluff Stability and Wetlands Along El Camino Real, Marblehead Coastal, Tentative Tract Map 8817/Site Plan Permit 97-16, City of San Clemente, California", Letter to MT No. 1, LLC dated June 15, 2000.

Leighton and Associates 2000, " Geotechnical Review of Alternatives 1 and 2, for the Existing Season Wetland, Wetland Avoidance Plans, Marblehead Coastal, Tentative Tract Map 8817/Site Plan Permit 97-16, City of San Clemente, California", letter to MT No. 1, LLC regarding Impact Area C dated June 6, 2000 and revised June 15, 2000.

Leighton and Associates 2000, "Review of the Bluff Slope and Proposed Retaining Wall Along North El Camino Real on the Boundary of the Dudley [sic] Reserve, Marblehead Coastal Property, Tentative Tract 8817, City of San Clemente, California", letter to MT No. 1, LLC dated August 22, 2000.

Leighton and Associates 2000, "Geotechnical Review of Foundation Options for the Residential and Commercial Buildings Proposed at the Marblehead Coastal Property, Tentative Tract 8817, City of San Clemente, California, Coastal Development Permit 5-99-260", letter to MT No. 1, LLC dated August 22, 2000

Leighton and Associates 2000, "Geotechnical Recommendations for the Design of Foundations for the Residential and Commercial Buildings", letter to MT No. 1, LLC dated August 31, 2000

Leighton and Associates 2000, "Response to Item E of the California Coastal Commission letter dated August 11, 2000, Pertaining to the Marblehead Coastal Property", letter to MT No. 1 LLC

which addresses geotechnical feasibility of avoiding wetland impacts at Drainage A dated September 18, 2000.

Leighton and Associates 2000, "Response to Item F of the California Coastal Commission letter dated August 11, 2000, Pertaining to the Marblehead Coastal Property", letter to MT No. 1 LLC which addresses geotechnical feasibility of avoiding wetland impacts at Impact Area C dated September 18, 2000.

Leighton and Associates 2000, "Estimated Remedial Quantities Pertaining to the Grading of Marblehead Coastal Property, Tract 8817, City of San Clemente, Coastal Development Permit 5-99-260", letter to MT No. 1 LLC dated September 14, 2000

Other Miscellaneous Reports

Firewise 2000, Inc. 2002, "Conceptual Fuel Management Plan for the Marblehead Coastal Development Amended Tentative Tract No. 8817", 20 p. report dated 27 November 2002.

Keith Companies 2002, "Archeological Survey, Marblehead Coastal Project Area, San Clemente, Orange County, California", 23 p. report dated November 2002.

Resource Agency Letters/Approvals

U.S. Fish and Wildlife Service & California Department of Fish and Game 2002, "Request for Determination of an Amendment to the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, City of San Clemente, California", letter to the City of San Clemente dated August 30, 2002

U.S. Fish and Wildlife Service & California Department of Fish and Game 2002, "Conditional Concurrence with the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, MT No. 1, LLC, City of San Clemente, California", letter to the City of San Clemente dated February 22, 2002

U.S. Fish and Wildlife Service & California Department of Fish and Game 2000, "Conditional Concurrence with the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, MT No. 1, LLC, City of San Clemente, California", letter to the City of San Clemente dated August 17, 2000

U.S. Fish and Wildlife Service & California Department of Fish and Game 1998, "Draft Environmental Impact Report, Marblehead Coastal General Plan Amendment 96-1, Specific Plan No. 95-02, Tentative Tract Map, Site Plans, Conditional Use Permit, and Sign Exception Permit", 6 p. letter dated March 20, 1998

California Department of Fish and Game, 2002, "Amendment No. 1 to Lake and Streambed Alteration Agreement (SAA) No. 5-378-99 for the Marblehead Coastal Project", dated March 13, 2002

California Department of Fish and Game 2000, Streambed Alteration Agreement#5-378-99, dated December 20, 2000

California Department of Fish and Game 2000, "Comments on the Marblehead Coastal Project Wetland Delineation", letter to California Coastal Commission dated August 29, 2000

California Department of Fish and Game 2000, "Comments on the Marblehead Coastal Project Wetland Delineation", letter to California Coastal Commission dated June 26, 2000

Letters/Reports/Approvals from City of San Clemente

City of San Clemente 2002, Construction of public access improvements, 3 p. letter dated February 2, 2002

City of San Clemente 2002, "Marblehead Coastal CDP 5-01-459", 2 p. letter to California Coastal Commission regarding water supply dated January 23, 2002

City of San Clemente 2001, Action of the City Council of the City of San Clemente, California, Agenda Item No. 7-A, Marblehead Coastal Resubmittal Briefing dated September 26, 2001

City of San Clemente 2000, "SERRA Land Outfall", 1 p. letter to California Coastal Commission dated September 8, 2000

City of San Clemente 2000, "Reclaimed Water Availability", 1 p. letter to California Coastal Commission dated September 8, 2000

City of San Clemente 2000, "Beachfront land dedication to public entity", letter to the California Coastal Commission dated July 3, 2000

City of San Clemente Design and Architectural Review, General Plan Amendment 96-02, Specific Plan 95-02, Tentative Subdivision TTM 8817 and amendment, Planned Residential/Commercial Development Approval, Site Plan Permit 97-16 and amendment, Site Plan Permit 99-16, Conditional Use Permit 99-17 and Sign Exception Plan 99-18

Other Agency Letters/Approvals

California Regional Water Quality Control Board 2002, "Marblehead Coastal Development 401 Water Quality Certification Amendment", dated February 19, 2002

California Regional Water Quality Control Board 2000, "Order for Standard Certification", dated August 1, 2000

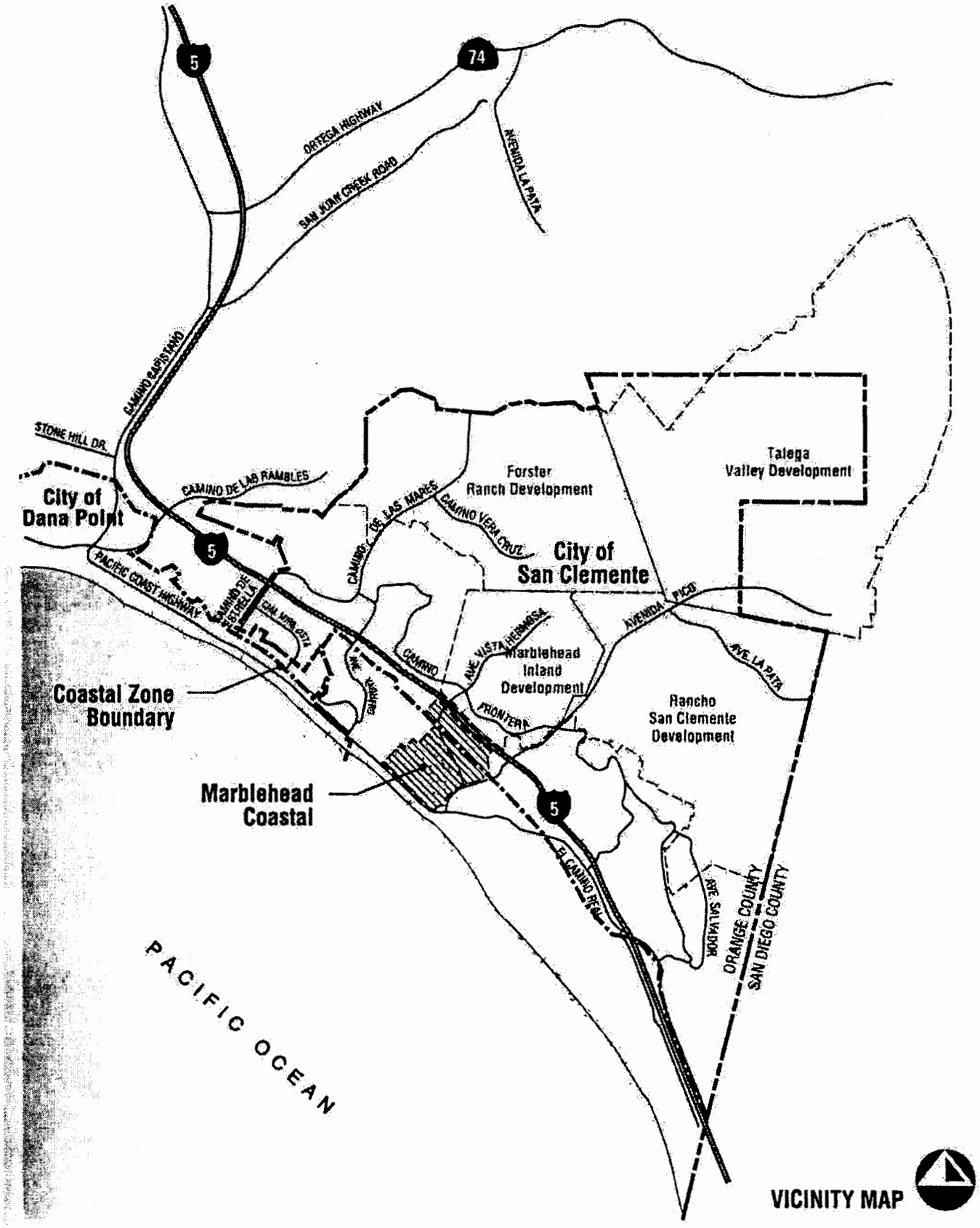
Native American Heritage Commission 2002, "Review of Cultural Resources Study Coastal Development Permit Application 5-01-459, Marblehead, San Clemente, Orange County", 2 p. letter plus attachment dated November 4, 2002.

Orange County Fire Authority 2002, "Marblehead Coastal", 1 p. letter dated August 23, 2002

Orange County Fire Authority 2002, "Marblehead Coastal", 2 p. letter dated May 2, 2002.

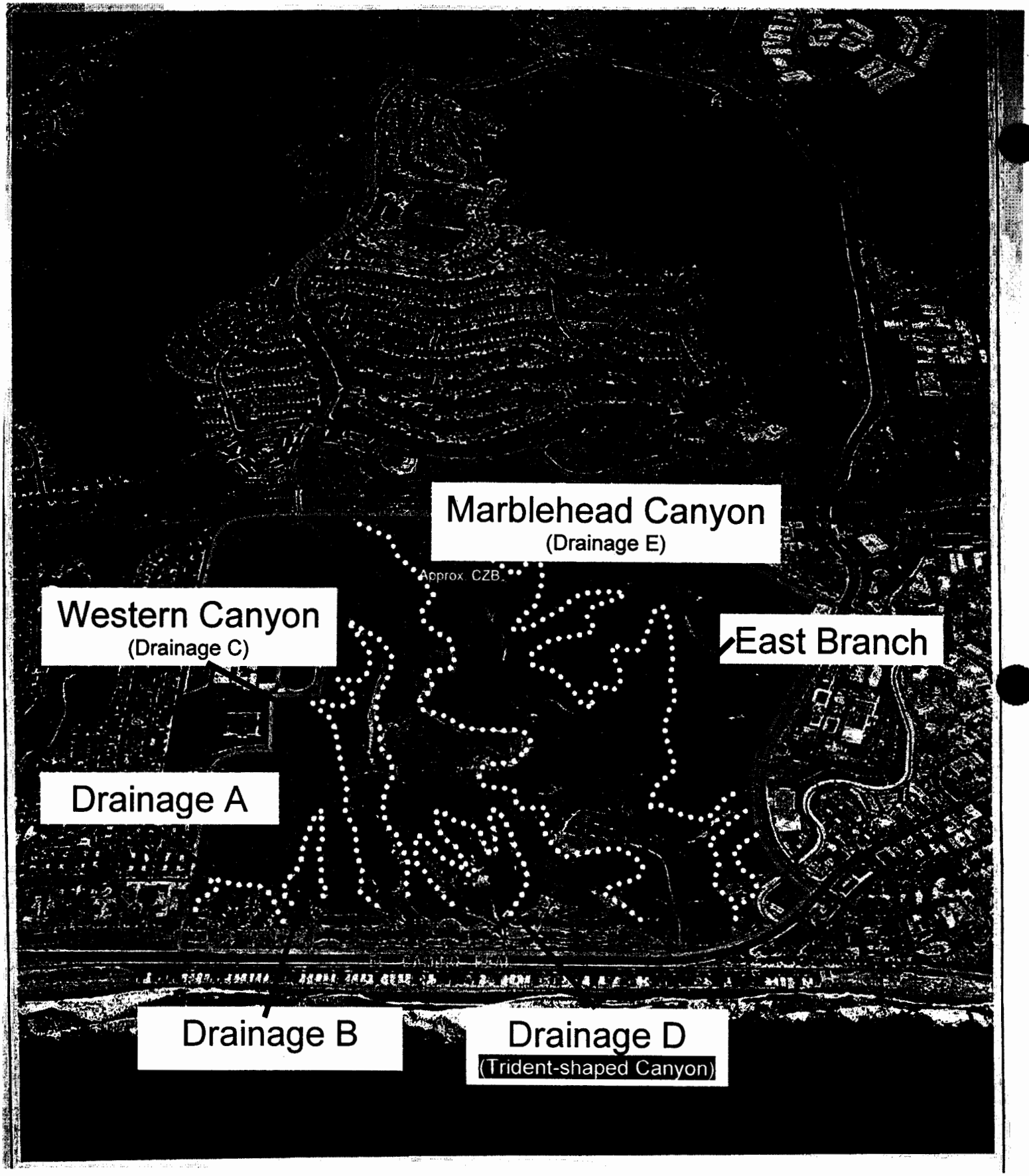
Coastal Development Permit Application Files

A-80-7433; 5-90-122-G; 5-90-274 (Lusk Company); 5-90-274-G (Lusk Company); 5-94-256 (City of San Clemente), 5-94-256A (City of San Clemente), and G5-94-256 (City of San Clemente); 5-94-263 (Lusk Company); 5-97-136 (Marblehead Coastal, Inc.); 5-99-260 (MT No. 1 LLC)



VICINITY MAP

EXHIBIT# 1
Page 1 of 1
Application Number: 5-01-459
California Coastal Commission



OBLIQUE AERIAL VIEW OF PROJECT SITE

EXHIBIT# 2
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California Coastal Commission

EXISTING SITE CONDITIONS

EXHIBIT#3
Page 1 of 2
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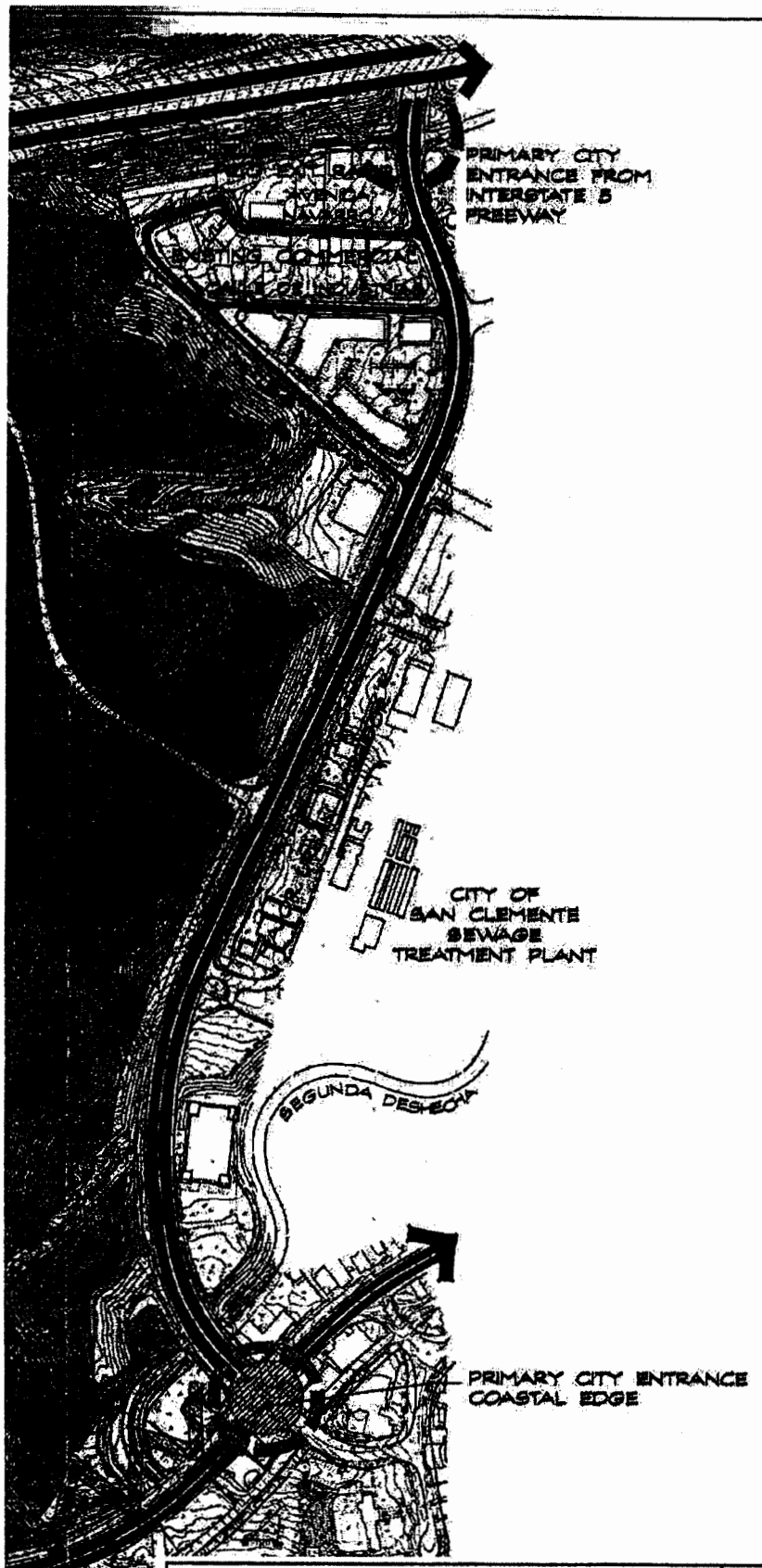
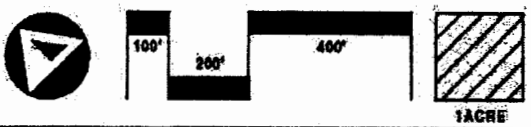
5 - 0 1 - 4 5 9
California Coastal Commission



LEGEND

- WATER COURSE
- RAILROAD
- UNDERGROUND STORM DRAIN LINE
- BRIDGE
- DAM
- PRIMARY INTERSECTION
- TREES
- OLD SETTLING PONDS LOCATIONS
- CHAIN LINK FENCE
- OLD CALTRANS STAGING AREA
- NOISE
- ACCESS ROAD
- CARNIVAL SITE
- DRY FARMING / GRAZING
- STOCKPILE AREA (DUE TO BLUFF STABILIZATION)
- BLUFF STABILIZATION PROJECT (RISK 1-3 AREAS)



Prepared by Robert Bein, William Frost & Associates for the

City of San Clemente

Planning Division

910 Calle Negocio
Suite 100
San Clemente, CA 92673
Tel (714) 498-2533
Fax (714) 361-8281

EXISTING CONDITIONS

MARBLEHEAD COASTAL
RESOURCE MANAGEMENT PLAN

EXHIBIT# 3
Page 2 of 2
Application Number:
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California Coastal Commission

Proposed Subdivision

EXHIBIT# 4
Page 1 of 4
Application Number:
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California Coastal Commission

Proposed Subdivision

EXHIBIT# 4
Page 2 of 4
Application Number:
5 - 0 1 - 4 5 9
California Coastal Commission

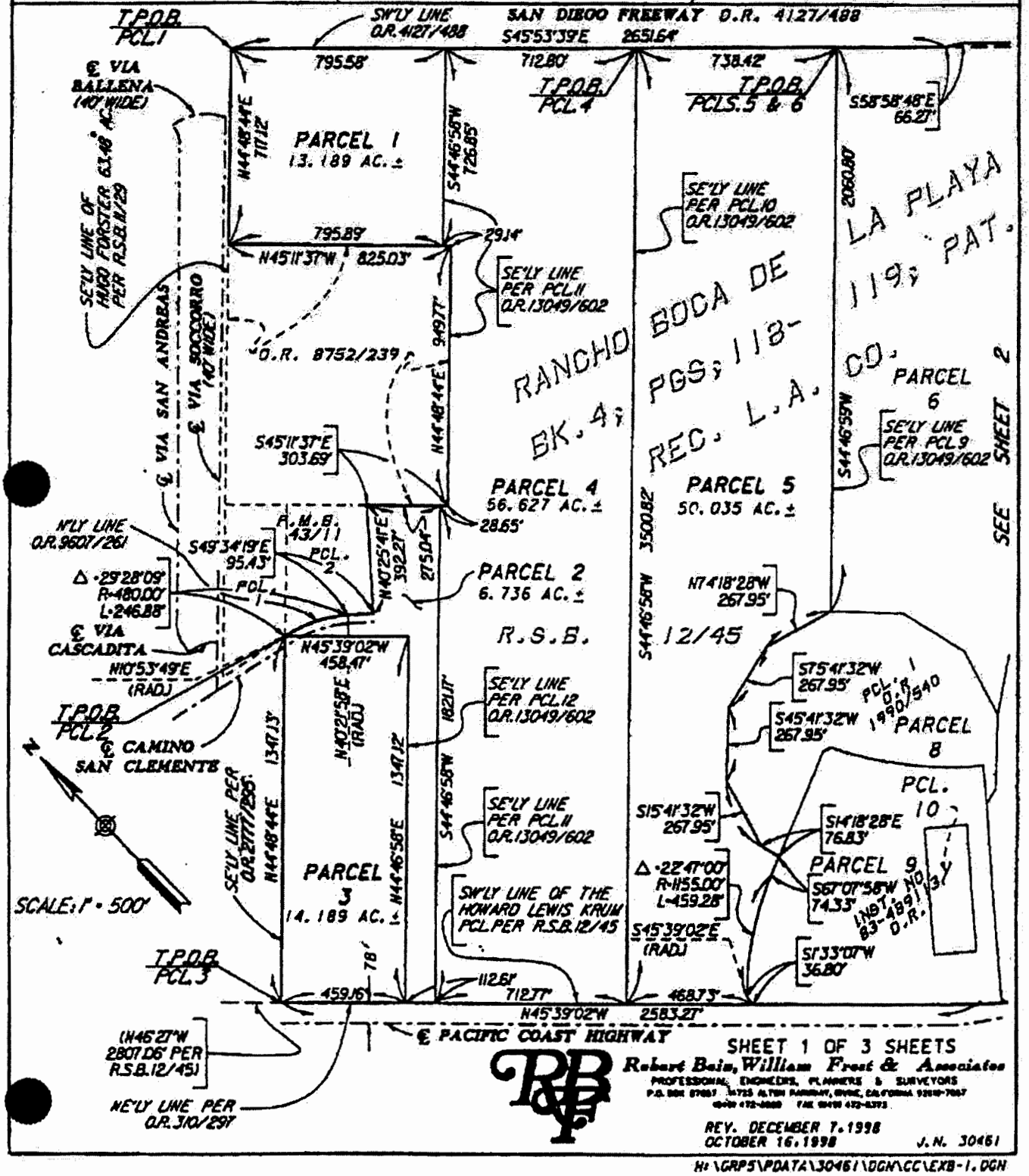
EXHIBIT "B"

CERTIFICATE OF COMPLIANCE

CC 98-102

MAP

OWNER	EXISTING PARCELS AP NUMBERS	PROPOSED PARCELS REFERENCE NUMBER
	SEE EXHIBIT "A"	



SHEET 1 OF 3 SHEETS

Robert Bein, William Frost & Associates
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS

REV. DECEMBER 7, 1998
OCTOBER 16, 1998
J.N. 30461

H:\GRP5\PDATA\30461\DGN\CC\EXB-1.DGN

Existing Subdivision

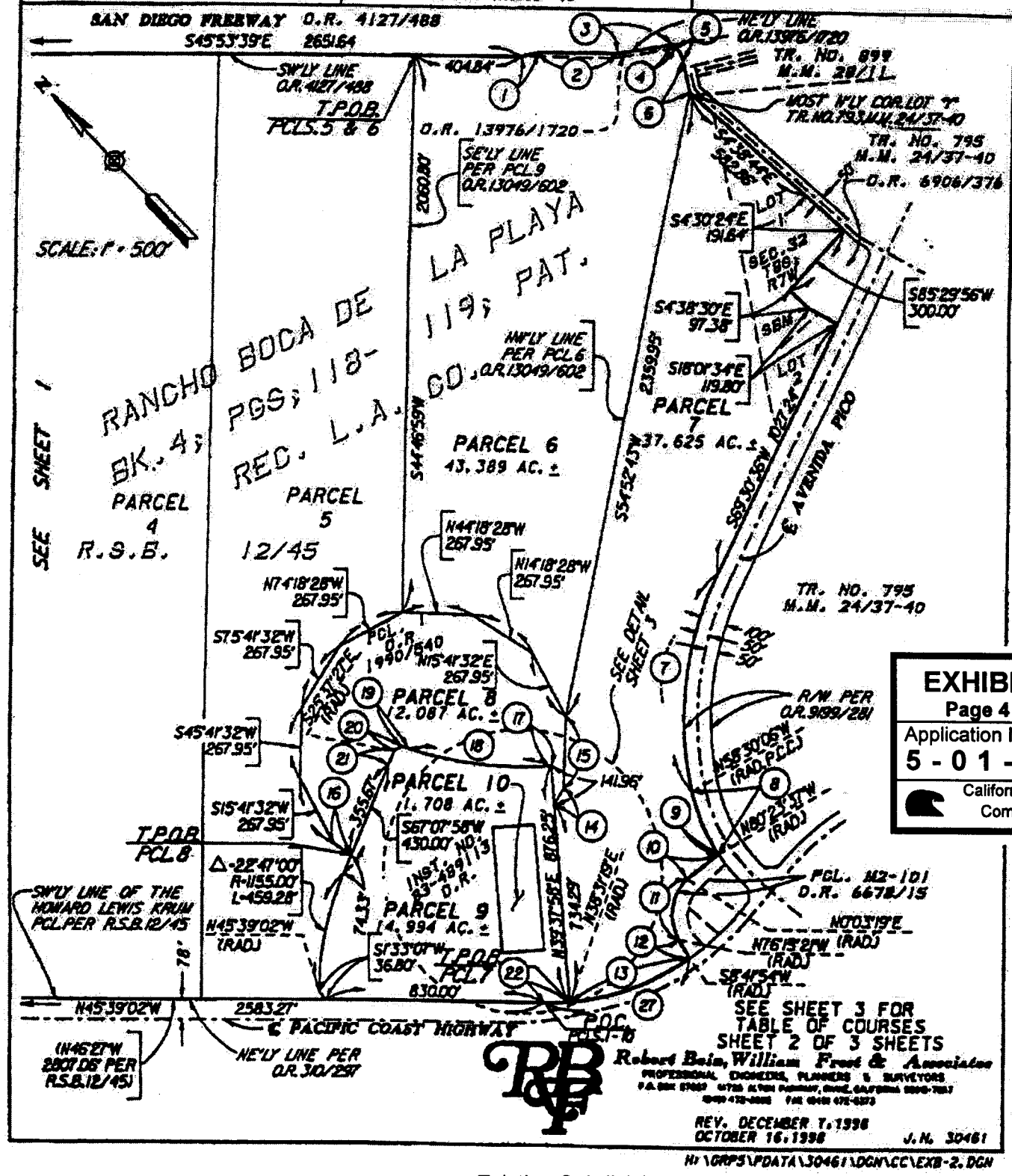
EXHIBIT "B"

CERTIFICATE OF COMPLIANCE

CC 98-102

MAP

OWNER	EXISTING PARCELS AP NUMBERS	PROPOSED PARCELS REFERENCE NUMBER
	SEE EXHIBIT "A"	



Robert Bein, William Frost & Associates
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS

REV. DECEMBER 7, 1998
OCTOBER 16, 1998
J.N. 30461

EXHIBIT# 4
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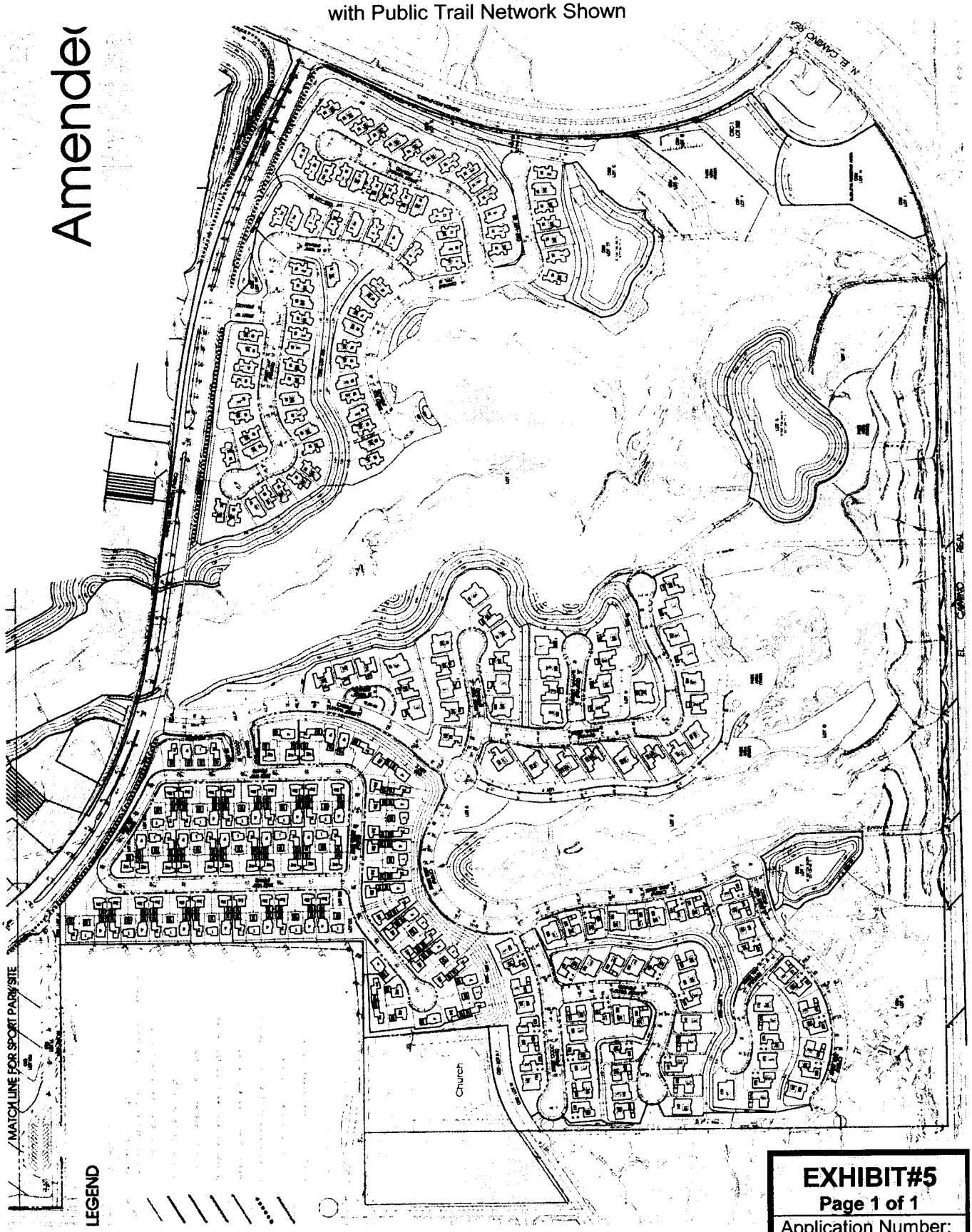
California Coastal Commission

Existing Subdivision

Site Plan for Residential Development
with Public Trail Network Shown

Amende



EXHIBIT#5
Page 1 of 1
Application Number:
5-01-459
California Coastal Commission

SINGLE FAMILY DETACHED

MARBLEHEAD

COASTAL

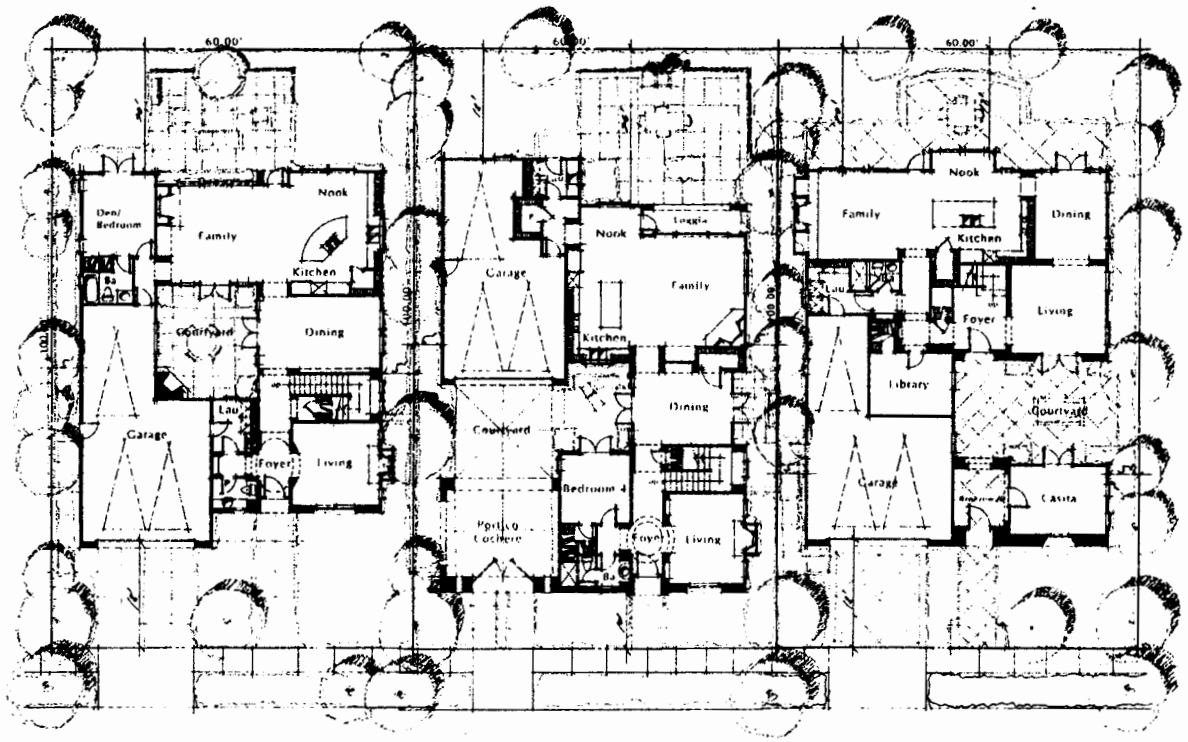
SAN CLEMENTE, CALIFORNIA

BARRATT AMERICAN

COASTAL COMMISSION
5-01-459

EXHIBIT # 6
P1 OF 6

SAMPLE
Residential Floor Plans & Elevations



Plan 1 Plan 2 Plan 3

Conceptual Site Plan

Spanish Monterey Andalusian Farmhouse Santa Barbara

Conceptual Streetscene

7565 Irvine Center Drive, Suite 200 Irvine, Ca 92618
Tel.: 949-655-1590 Fax.: 949-655-1599

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Marblehead Coastal
6000 S.F. Lot Product

Barratt American Homes

11-07-01

COASTAL COMMISSION
5-01-459
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COASTAL COMMISSION
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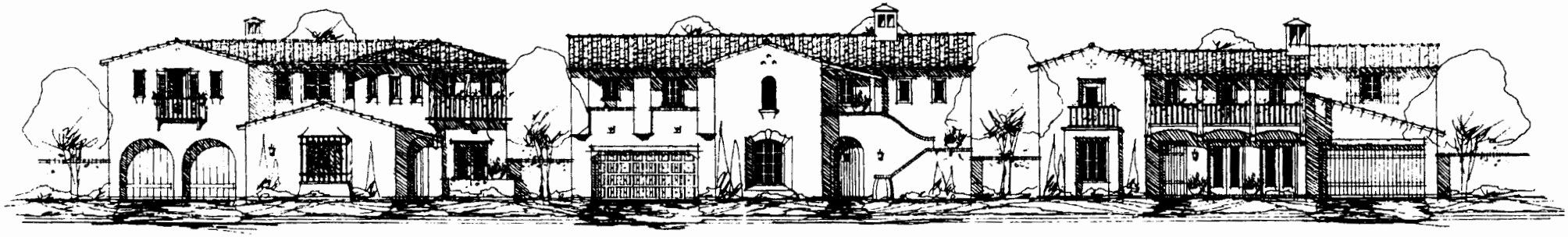


Plan 1
Santa Barbara

Plan 2
Spanish Colonial Revival

Plan 3
Spanish Monterey

Conceptual Streetscene

Marblehead - Coastal

SINGLE FAMILY CLUSTER HOMES

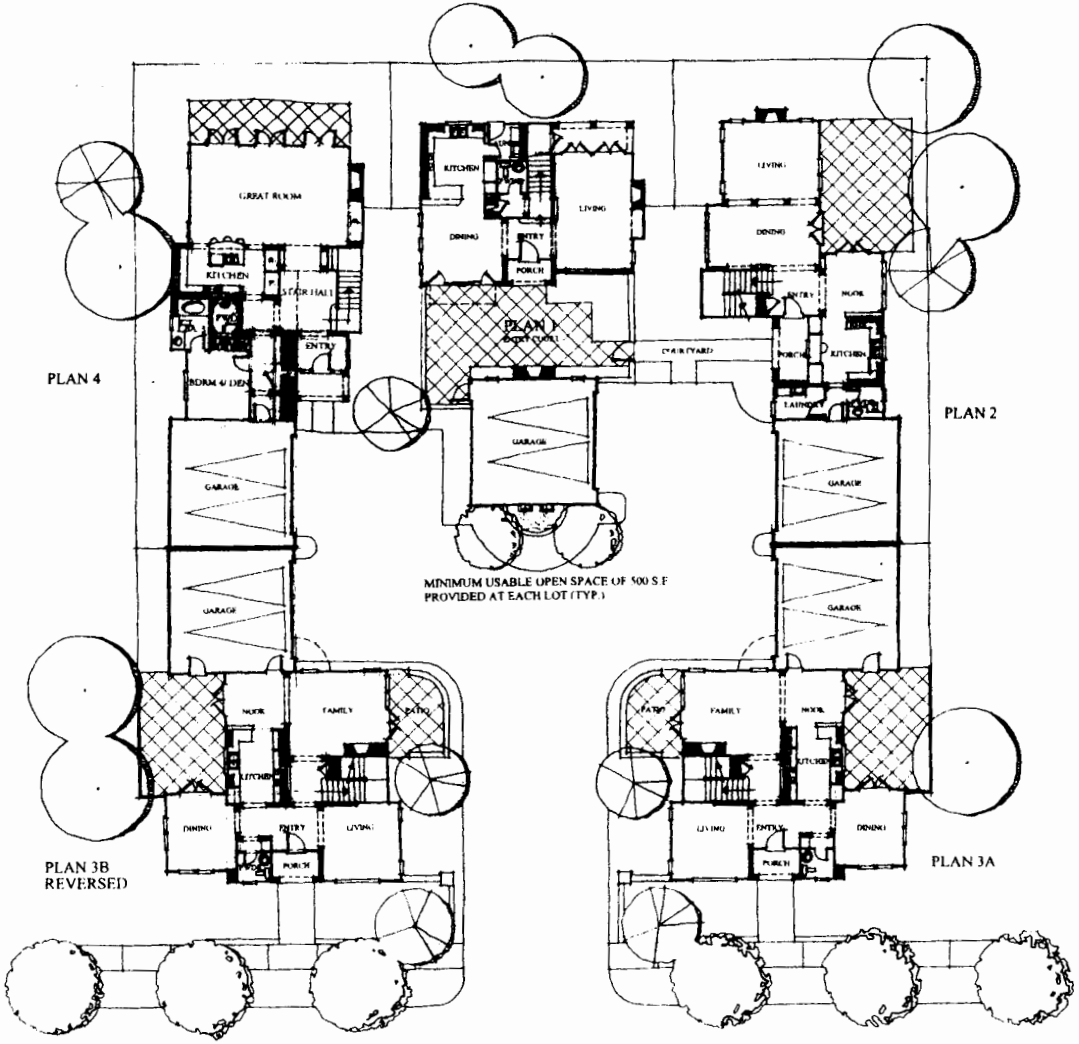
BARRATT

Building Fine Homes Since 1958

RICHEUNER ARCHITECTS, INC.

COASTAL COMMISSION
5-01-459
EXHIBIT # 6
P. 4 of 6

DEC 2001



Plan #	1st Floor	Total	Garage
1	829	1,612*	441
2	951	1,862	435
3	1,075	2,037	437
4	1,257	2,320	435

* = +200 S.F. Casita option over garage

COASTAL COMMISSION
5-01-459
EXHIBIT # 6
P.5 of 6

BARRATT
Building Fine Homes Since 1958

Marblehead - Coastal

SINGLE FAMILY CLUSTER HOMES

SCHEURER ARCHITECTS, INC.

10-24-01

2

DEC 05 2001

PLAN 2 – COURTYARD SIDE

PLAN 3A - COURTYARD SIDE

COURT ELEVATION

PLAN 3B – REVERSED

PLAN 1 (BEYOND)

PLAN 3A

STREET ELEVATION

COASTAL COMMISSION
5-01-459
EXHIBIT # 6
P. 6 of 6

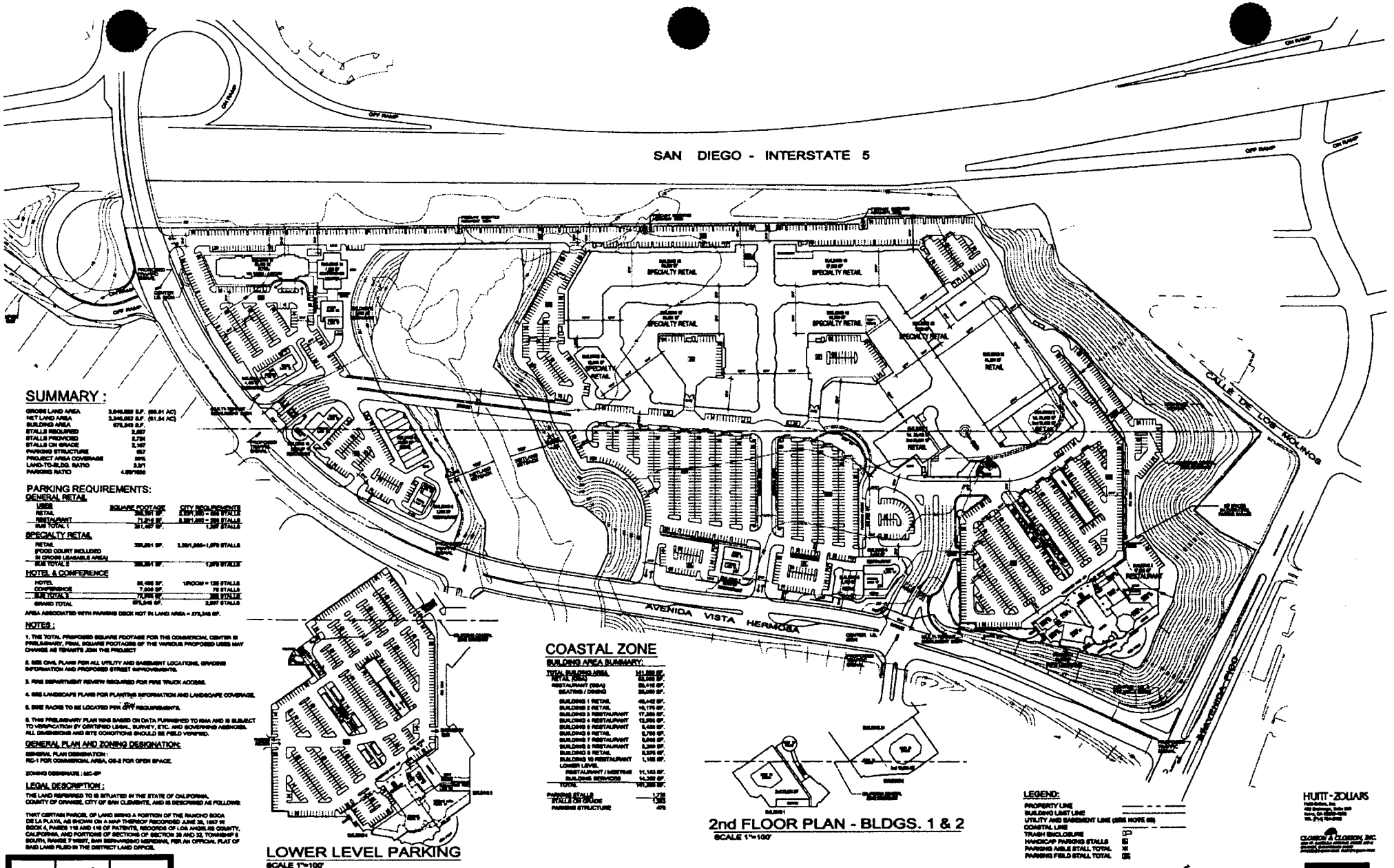
BARRATT
Building Fine Homes Since 1958

Marblehead - Coastal

SINGLE FAMILY CLUSTER HOMES

SCHEURER ARCHITECTS, INC.

DEC 0 2001



SUMMARY :

GROSS LAND AREA	3,946,888 S.F. (90.61 AC)
NET LAND AREA	2,346,082 S.F. (61.84 AC)
BUILDING AREA	675,343 S.F.
STALLS REQUIRED	2,667
STALLS PROVIDED	2,724
STALLS ON GRADE	2,167
PARKING STRUCTURE	557
PROJECT AREA COVERAGE	29%
LAND-TO-BLDG. RATIO	2.57
PARKING RATIO	4.03/1000

PARKING REQUIREMENTS:

GENERAL RETAIL

USES	SQUARE FOOTAGE	CITY REQUIREMENTS
RETAIL	269,567 SF.	(269,567 / 300) = 899 STALLS
RESTAURANT	71,410 SF.	(8,567 / 200) = 286 STALLS
SUB TOTAL 1	81,127 SF.	1,287 STALLS

SPECIALTY RETAIL

RETAIL	339,251 SF.	3,391,000 = 1,870 STALLS
(FOOD COURT INCLUDED IN OFFICE LEASABLE AREA)		
SUB TOTAL 2	339,251 SF.	1,870 STALLS

HOTEL & CONFERENCE

HOTEL	66,455 SF.	1/ROOM = 130 STALLS
CONFERENCE	7,000 SF.	75 STALLS
SUB TOTAL 3	73,455 SF.	205 STALLS
GRAND TOTAL	675,343 SF.	3,287 STALLS

AREA ASSOCIATED WITH PARKING DECK NOT IN LAND AREA = 270,346 SF.

NOTES :

1. THE TOTAL PROPOSED SQUARE FOOTAGE FOR THE COMMERCIAL CENTER IS PRELIMINARY. FINAL SQUARE FOOTAGES OF THE VARIOUS PROPOSED USES MAY CHANGE AS TENANTS JOIN THE PROJECT
2. SEE CIVIL PLANS FOR ALL UTILITY AND EASEMENT LOCATIONS, GRADING INFORMATION AND PROPOSED STREET IMPROVEMENTS.
3. FIRE DEPARTMENT REVIEW REQUIRED FOR FIRE TRUCK ACCESS.
4. SEE LANDSCAPE PLANS FOR PLANTER INFORMATION AND LANDSCAPE COVERAGE.
5. BIKE RACKS TO BE LOCATED PER CBC REQUIREMENTS.
6. THIS PRELIMINARY PLAN WAS BASED ON DATA FURNISHED TO KMA AND IS SUBJECT TO VERIFICATION BY CERTIFIED USAVL, SURVEY, ETC. AND SOVERHING ASBHOSS. ALL DIMENSIONS AND SITE CONDITIONS SHOULD BE FIELD VERIFIED.

GENERAL PLAN AND ZONING DESIGNATION:

GENERAL PLAN DESIGNATION :
RC-1 FOR COMMERCIAL AREA, OS-2 FOR OPEN SPACE.

ZONING DESIGNATE : MC-SP

LEGAL DESCRIPTION :

THE LAND REFERRED TO IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF ORANGE, CITY OF SAN CLEMENTE, AND IS DESCRIBED AS FOLLOWS:

THAT CERTAIN PARCEL OF LAND BEING A PORTION OF THE RANCHO BOCA DE LA PLAYA, AS SHOWN ON A MAP THEREOF RECORDED JUNE 28, 1887 IN BOOK 4, PAGES 119 AND 120 OF PATENTS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, AND PORTIONS OF SECTIONS OF SECTION 28 AND 33, TOWNSHIP 8 SOUTH, RANGE 7 WEST, SAN BERNARDINO MERIDIAN, PER AN OFFICIAL PLAT OF SAID LAND FILED IN THE DISTRICT LAND OFFICE.

COASTAL ZONE

BUILDING AREA SUMMARY:

TOTAL BUILDING AREA	141,888 SF.
RETAIL (SHOP)	49,442 SF.
RESTAURANT (SHOP)	69,410 SF.
SEATING / DINING	38,000 SF.
BUILDING 1 RETAIL	49,442 SF.
BUILDING 2 RETAIL	45,176 SF.
BUILDING 3 RESTAURANT	17,300 SF.
BUILDING 4 RESTAURANT	13,200 SF.
BUILDING 5 RESTAURANT	6,400 SF.
BUILDING 6 RETAIL	6,700 SF.
BUILDING 7 RESTAURANT	6,800 SF.
BUILDING 8 RESTAURANT	6,300 SF.
BUILDING 9 RETAIL	6,575 SF.
BUILDING 10 RESTAURANT	1,140 SF.
LOWER LEVEL	
RESTAURANT / MEETING	11,163 SF.
BUILDING SERVICES	14,300 SF.
TOTAL	141,888 SF.
PARKING STALLS	1,730
STALLS ON GRADE	1,167
PARKING STRUCTURE	476

LOWER LEVEL PARKING
SCALE 1"=100'

2nd FLOOR PLAN - BLDGS. 1 & 2
SCALE 1"=100'

LEGEND:
PROPERTY LINE
BUILDING LIMIT LINE
UTILITY AND EASEMENT LINE (SEE NOTE #2)
CONETRL LINE
TRASH ENCLOSURE
HANDICAP PARKING STALLS
PARKING ABLE STALL TOTAL
PARKING FIELD STALL TOTAL

SITE PLAN

l Promenade at San Clemente

la

Craig Realty Group

HUNT - ZOLLARS

CLARK & CLARSON, INC.

KMA ARCHITECTURE & ENGINEERING

S1.0

sdc
SDC PARTNERS, LTD.

SDC Partners, LTD. & Craig Realty Group
4 Upper Newport Plaza, Suite 201
Newport Beach, California 92660
Tel: 949-851-1414 Fax: 949-833-9750

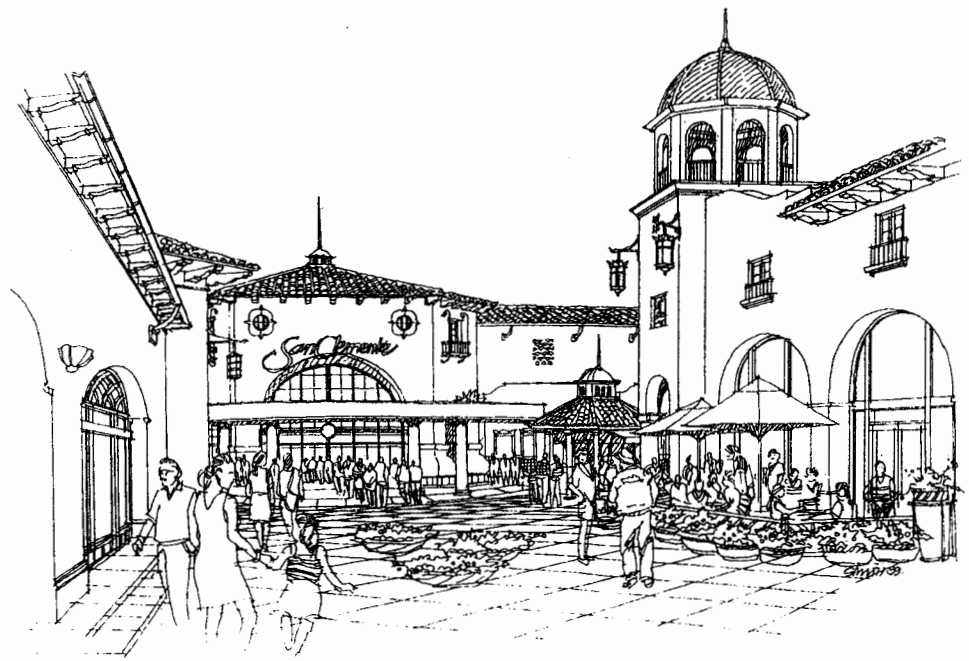
1500 Quail Street, Suite 100
Newport Beach, California 92660
Tel: 949-224-4100 Fax: 949-224-4101

A DEVELOPMENT OF:
CRAIG REALTY GROUP

EXHIBIT#7
Page 1 of 1
Application Number:
5-01-459
California Coastal Commission

Commercial Cent
Portion in C2

COASTAL COMMISSION
5-01-439
EXHIBIT # 8
P 1. of 4



T1.0 TITLE SHEET
S1.0 SITE PLAN
C1.0 GRADING STUDY
C2.0 PARCEL LINE EXHIBIT
A2.1 ELEVATIONS - BUILDING 1
A2.2 ELEVATIONS - BUILDING 2
A2.3 ELEVATIONS - BUILDINGS 3 & 4
A2.4 ELEVATIONS - BUILDINGS 5 & 6
A2.5 ELEVATIONS - BUILDINGS 7
A2.6 ELEVATIONS - BUILDING 8
A2.7 ELEVATIONS - BUILDING 9
A2.8 ELEVATIONS - BUILDING 10
A2.9 PARKING GARAGE NORTH
A2.10 PARKING GARAGE SOUTH
L1.0 LANDSCAPE PLAN
L2.0 PEDESTRIAN CORRIDORS
L3.0 PROJECT ENTRY
L4.0 BUILDINGS 3 & 4
L5.0 INTERNAL PARKING AREA
L6.0 RETAIL PLAZA

Marblehead Promenade at San Clemente

TITLE SHEET

San Clemente, California

SDC Partners, LTD. & Craig Realty Group

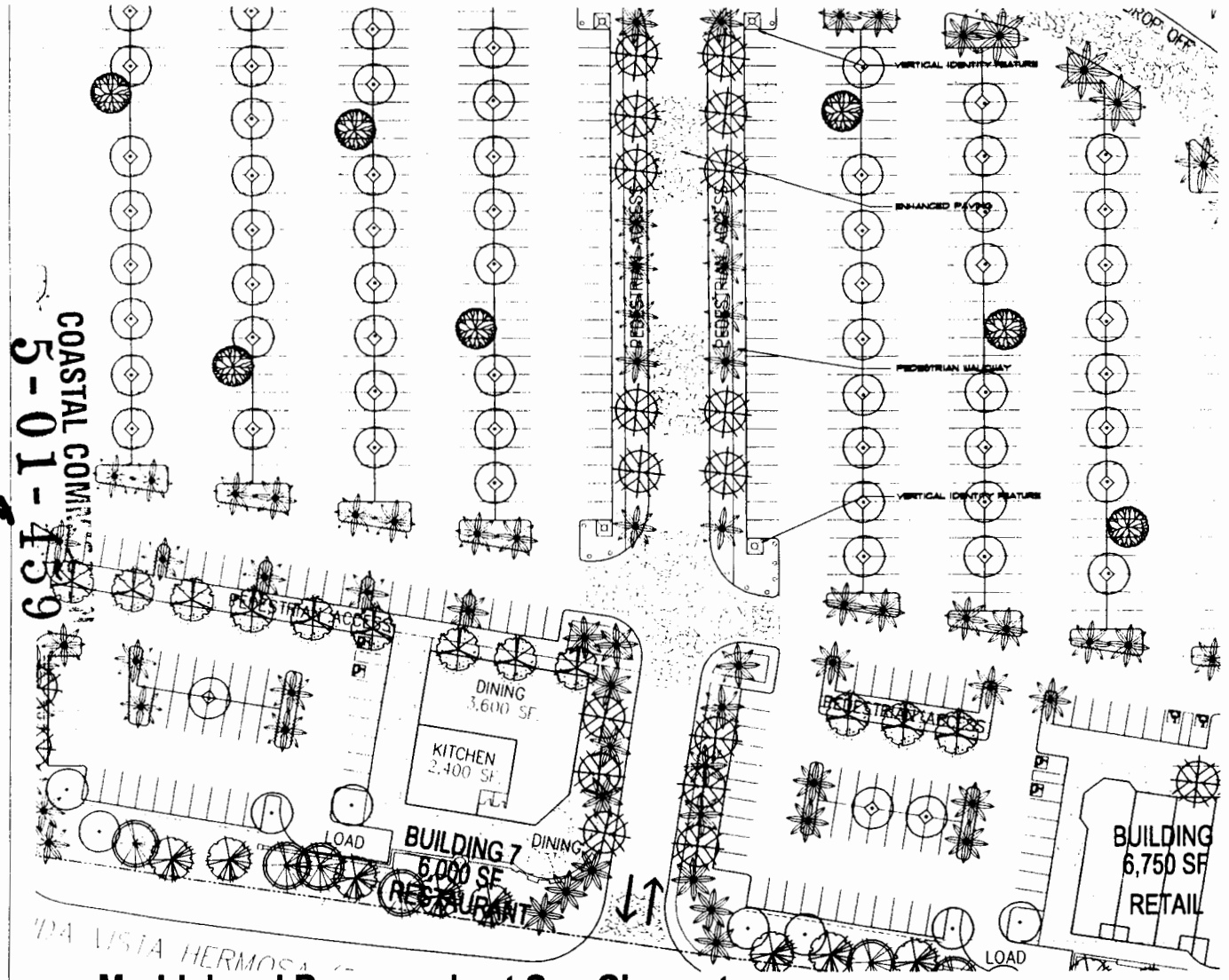
sdc
SDC PARTNERS, LTD.

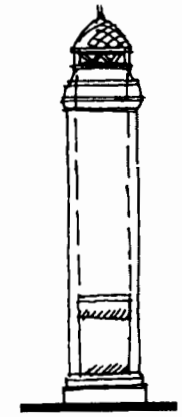
SDC Partners, LTD. & Craig Realty Group
4 Upper Newport Plaza, Suite 201
Newport Beach, California 92660
Tel: 949-851-1414 Fax: 949-833-9750

1500 Quail Street, Suite 100
Newport Beach, California 92660
Tel: 949-224-4100 Fax: 949-224-4101

T1.0

KMA
ARCHITECTURE & ENGINEERING





VERTICAL IDENTITY FEATURE
NOT TO SCALE

PROPOSED PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE
TREES			
	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX
	[illegible]	CARROT WOOD	24" BOX
	PINUS TORREYANA	TORRY PINE	5 GAL
	[illegible]	JAPANESE PAGODA TREE	36" BOX
	PHOENIX DANARIENSIS	CANARY ISLAND DATE PALM	36" BTH
	WASHINGTONIA ROBUSTA	MEXICAN FAN PALM	8" BTH
GROUNDCOVERS - ENTRY			
	HEDERA HELIX MANNS	HANNS IVY	FLATS
	[illegible]	IVY GERANIUM	FLATS
	[illegible]	BLUE RIBBON	4" POTS
	LANTANA [illegible]	TRAILING LANTANA	FLATS

A DEVELOPMENT OF:
CRAIG REALTY GROUP

sdc
SDC PARTNERS, LTD.

Marblehead Promenade at San Clemente

SDC PARTNERS, LTD & CRAIG REALTY GROUP

Project Entry
L3

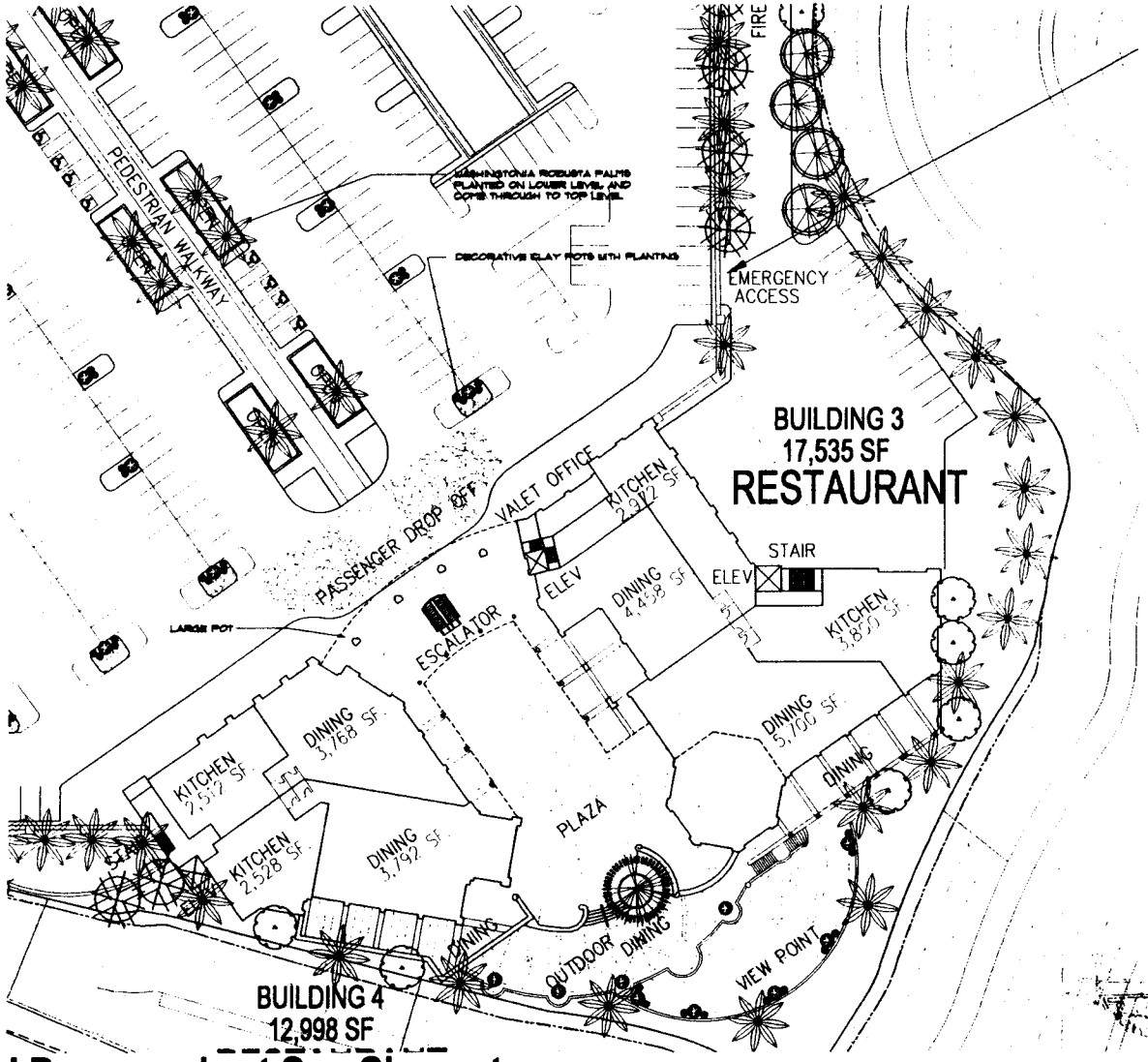
CLOSSON & CLOSSON, INC.
1060 W. KATELLA AVENUE, SUITE 230-B
ORANGE, CALIFORNIA 92867
PHONE (714) 630-2352 FAX (714) 630-7992

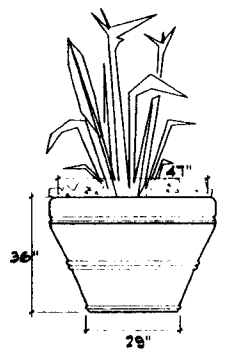
KMA
ARCHITECTURE & ENGINEERING

COASTAL COMM
5-01-459

EXHIBIT # 8
P. 2 OF 4

V:\01055\01055L3.dwg Thu Dec 06 12:09:10 2001





LARGE POT WITH PLANTING

LARGE ITALIAN STYLE CONTAINER
BIRD OF PARADISE W/ GROUNDCOVER
BENEATH

COASTAL COMMISSION
5-01-459
EXHIBIT # 8
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Marblehead Promenade at San Clemente

SDC PARTNERS, LTD & CRAIG REALTY GROUP

Buildings 3 & 4

L4

CLOSSON & CLOSSON, INC.

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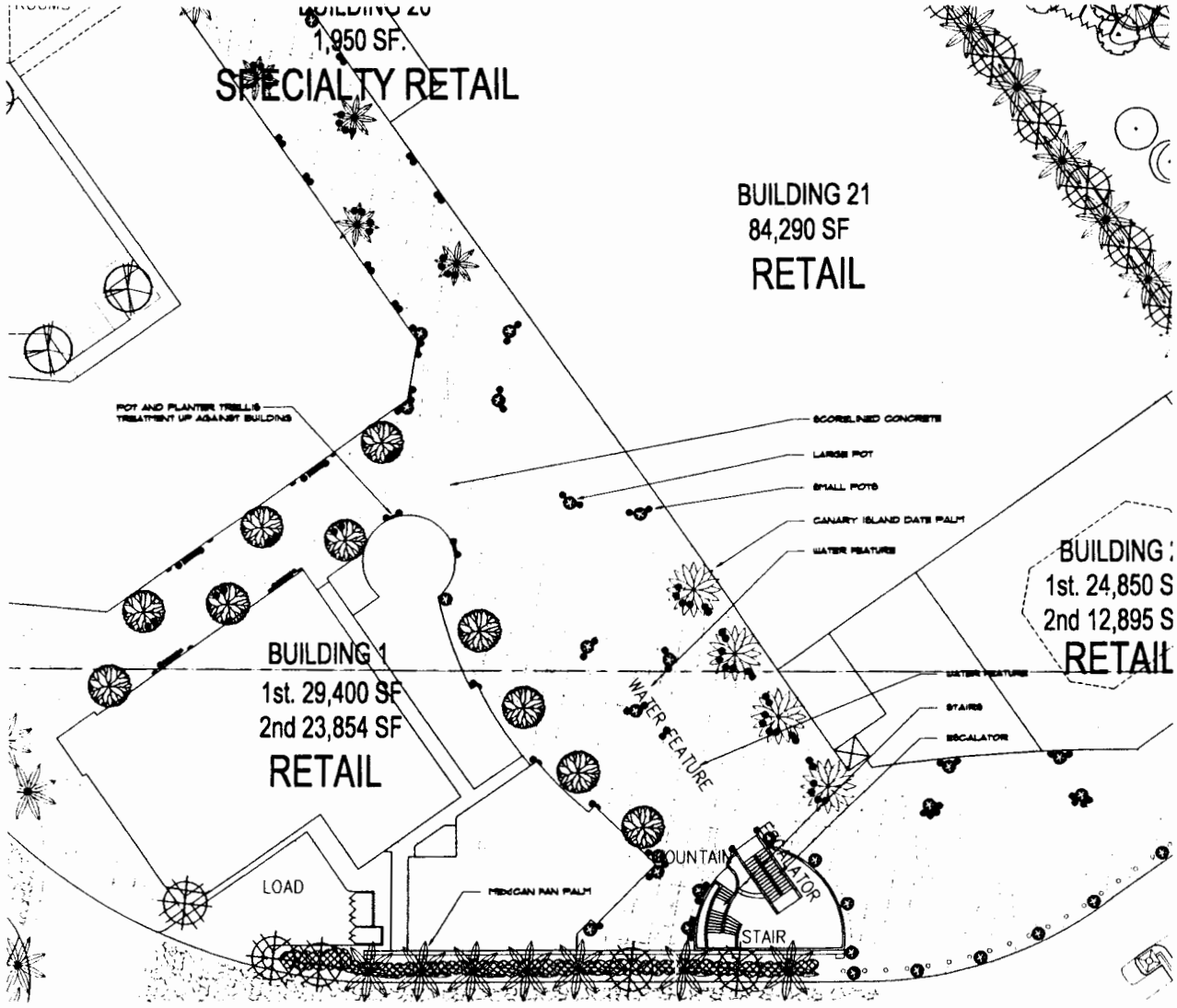
CRAIG REALTY GROUP

sdc
SDC PARTNERS, LTD.

ARCHITECTURE & ENGINEERING

V:\01055\01055L4.dwg Thu Dec 06 12:01:40 2001



Marblehead Promenade at San Clemente

SDC PARTNERS, LTD & CRAIG REALTY GROUP

Retail Plaza

L6

CLOSSON & CLOSSON, INC.

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CRAIG REALTY GROUP

SDC PARTNERS, LTD.

KMA ARCHITECTURE & ENGINEERING

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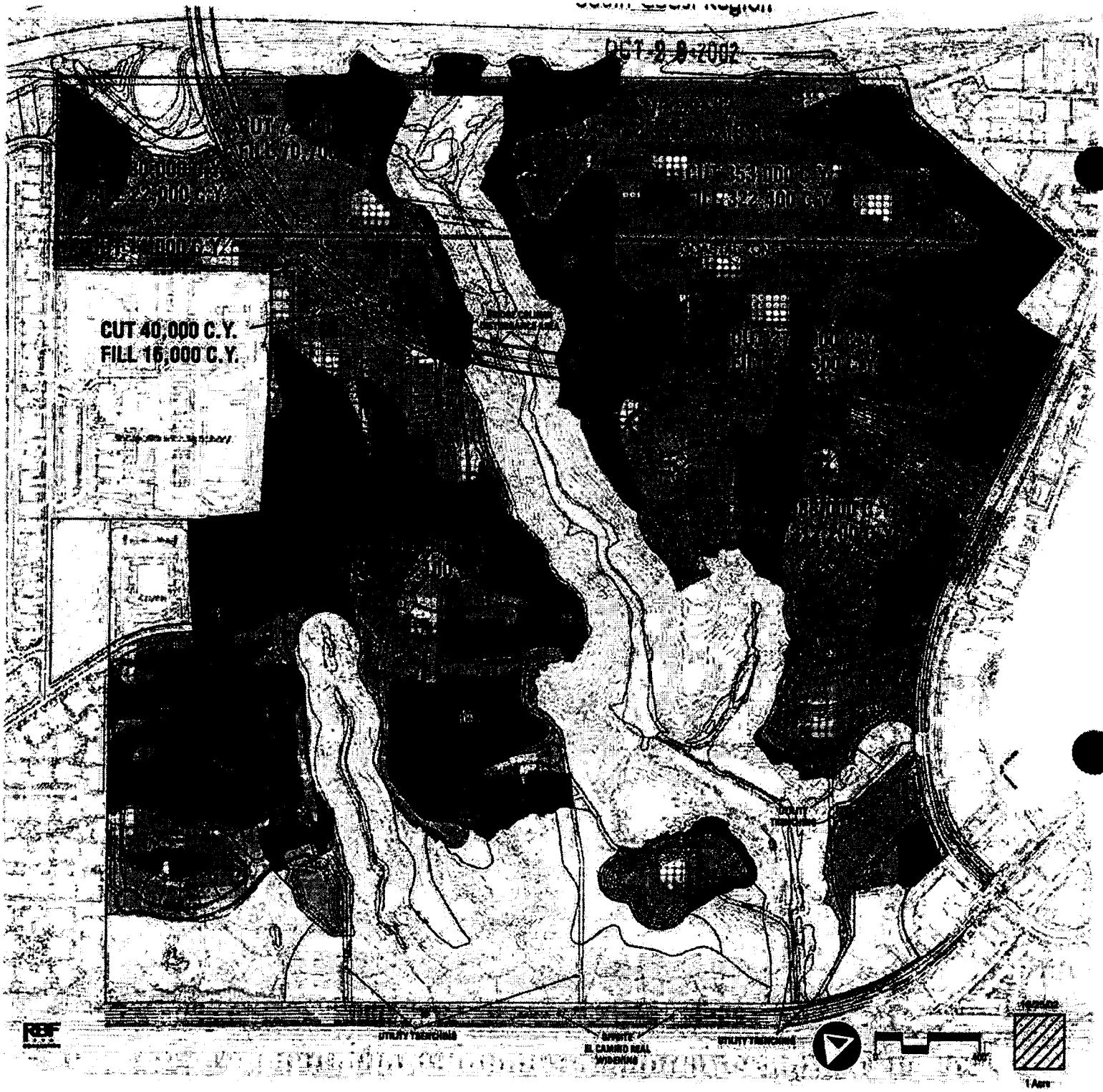
DEC 2 8 2002



FILL

CUT

EARTHWORK VOLUME TABLE

	CUT (C.Y.)	FILL (C.Y.)
WITHIN COASTAL ZONE	1,185,700	1,226,800
OUTSIDE COASTAL ZONE	456,000	415,100
TOTALS	1,641,700	1,641,700

MARBLEHEAD COASTAL

Revised Earthwork Volume - Cut & Fill Map

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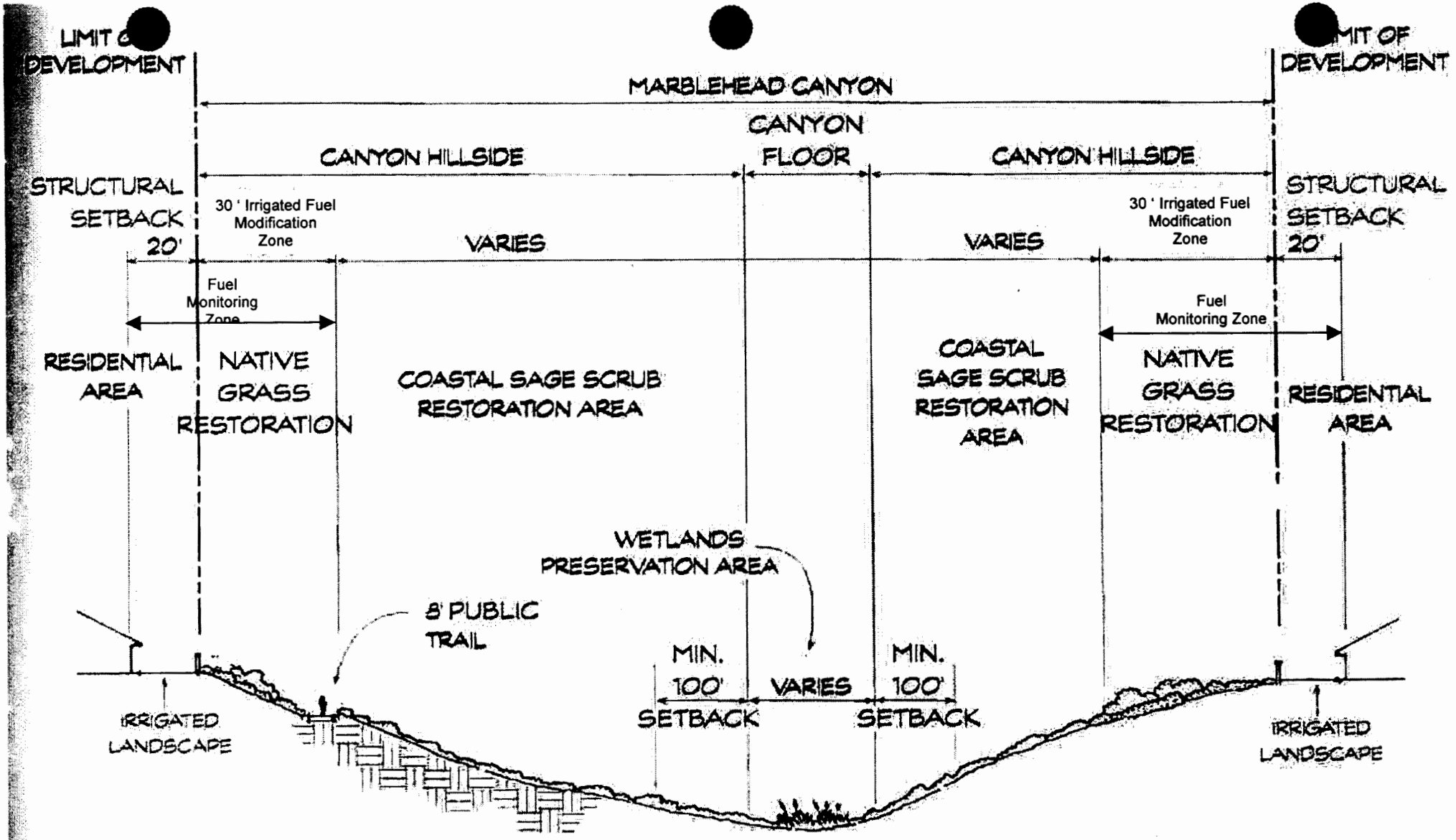

TYPICAL CANYON CROSS SECTION

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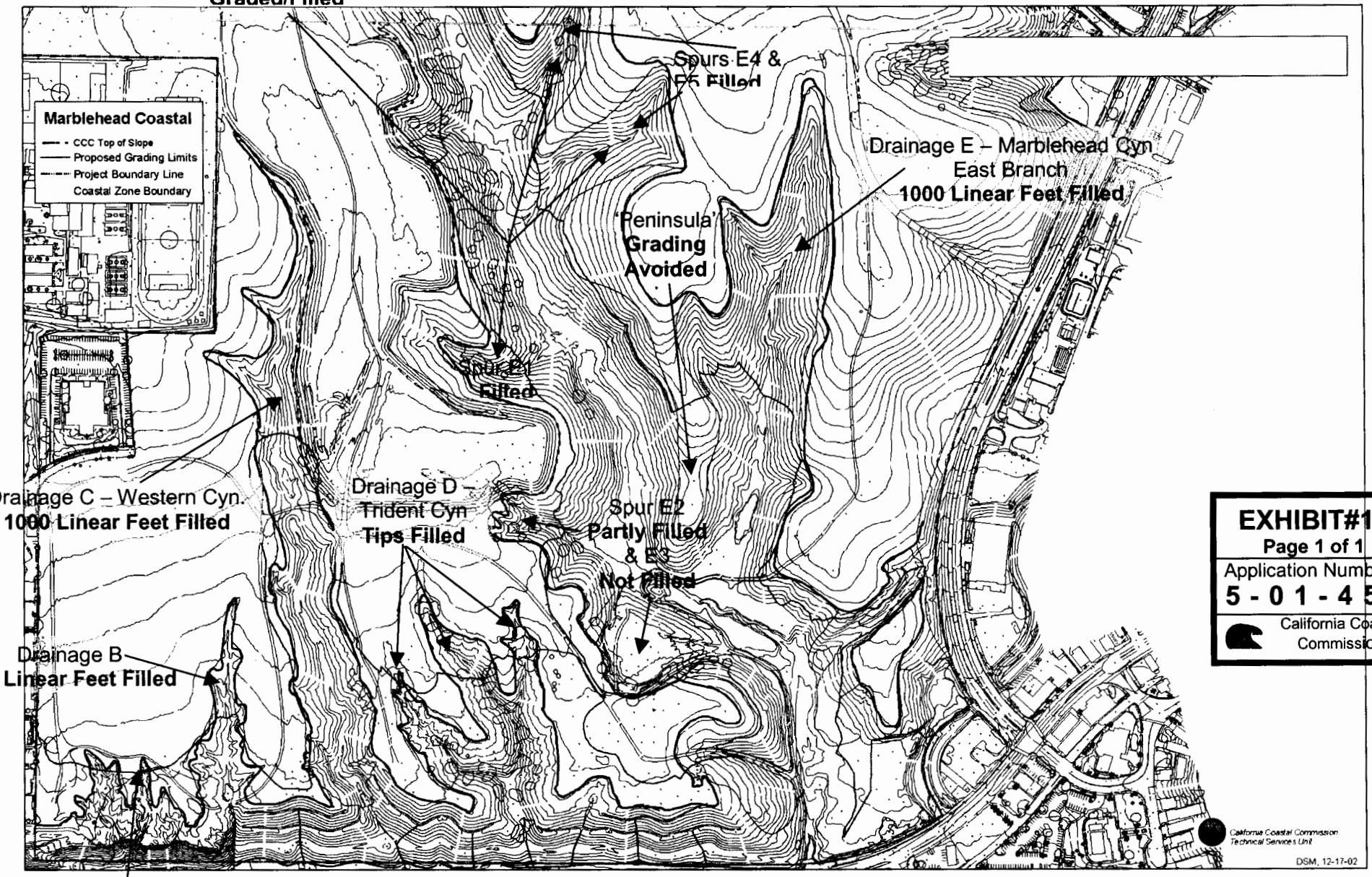
LANDFORM ALTERATION



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Plan View of Site Depicting Existing Topography and Top of Slope and the Proposed Development Grading Limit Line
- Staff Identified Top of Slope Line

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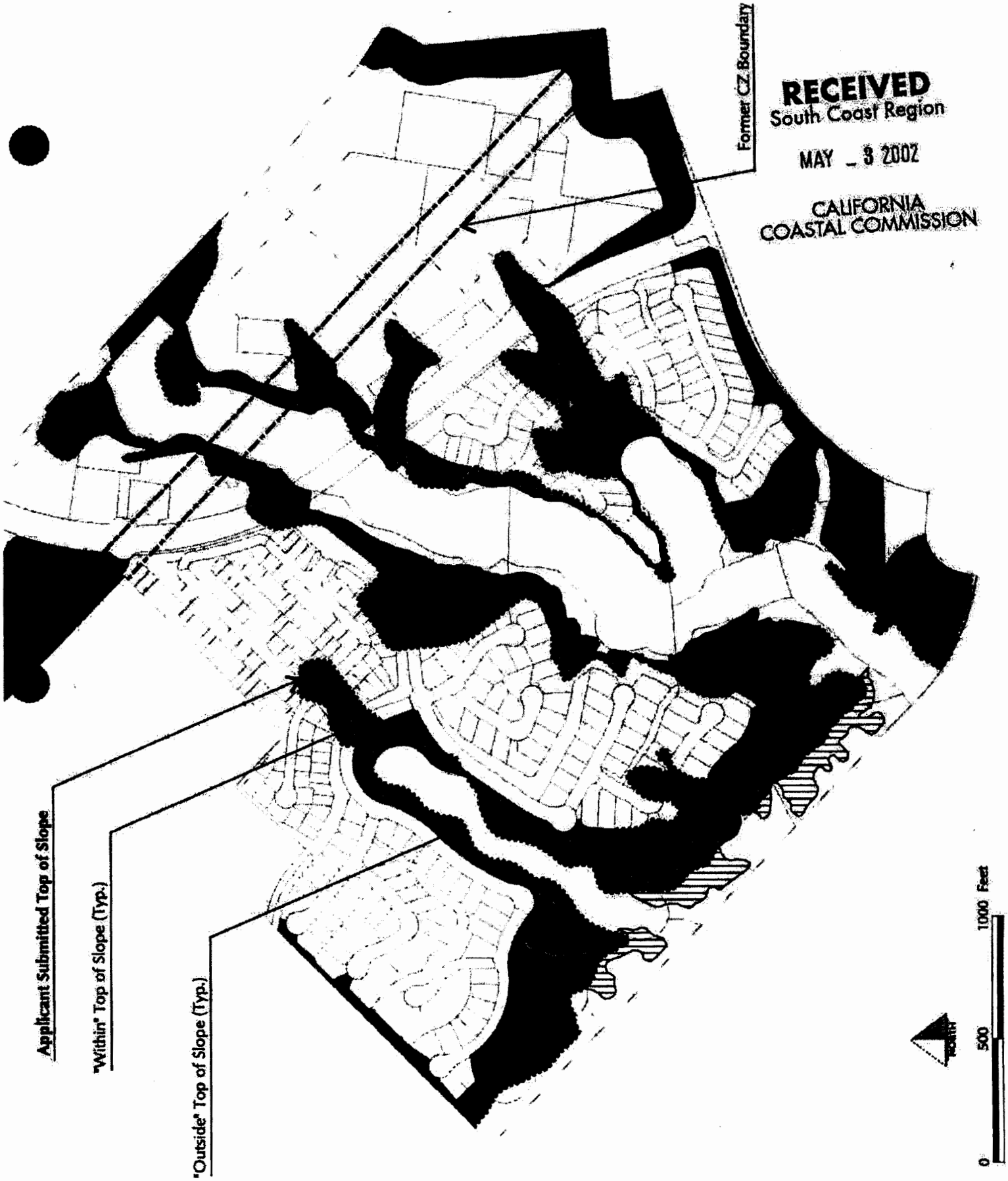

Landform Alteration Based on
Applicant Identified Top of Slope Line

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Applicant Submitted Top of Slope (Post-1990 Topo) Comparative Anaylsis of Outside and Within TOS

LEGEND

A. USEABLE ACREAGE LEFT AS OPEN SPACE OUTSIDE OF TOP OF SLOPE (Not Used for Residential or Commerical Development)	Above New CZ Acres	Total
Graded	10.0	35.3
Ungraded	0.9	14.1
Total - Useable Acreage Left As Open Space	10.9	49.3

B. USES PROPOSED WITHIN TOP OF SLOPE (Grading and Development)		
Non-Open Space Areas (Residential and Commercial)	2.9	18.2
Open Space (Graded)	1.1	10.5
Subtotal	4.0	28.7

C. USES FOR PUBLIC BENEFIT - WITHIN TOP OF SLOPE		
Total Uses Within Top of Slope (See "B" Above)	4.0	28.7
Less Uses for Public Benefit Within Top of Slope	-4.0	-21.7
Total Remaining Uses Within TOS	0	7.0

D. COMPARATIVE ANALYSIS ("A" - Open Space to "C" - Other Uses)		
Total Useable Acreage Left As Open Space (See "A" Above) - Outside Top of Slope	10.9	49.3
Total Remaining Uses Within TOS (See "C" Above)	-0	-7.0
Open Space in Excess of Net Other Uses Within Top of Slope	10.9	42.3
Ratio of "A" to "C"	0	7.0 to 1 (49.3 ac to 7.0 ac)

New Coastal Zone Boundary

Old Coastal Zone Boundary

Applicant Submitted Top of Slope (Post-1990 Topo)

Limits of Proposed Grading

Source: RBF Consulting

RBF CONSULTING GIS

JN: 10-030461
May 3, 2002

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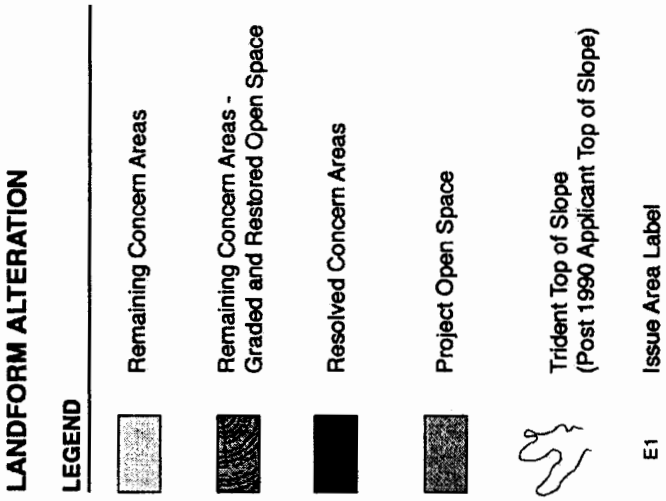
LANDFORM ALTERATION

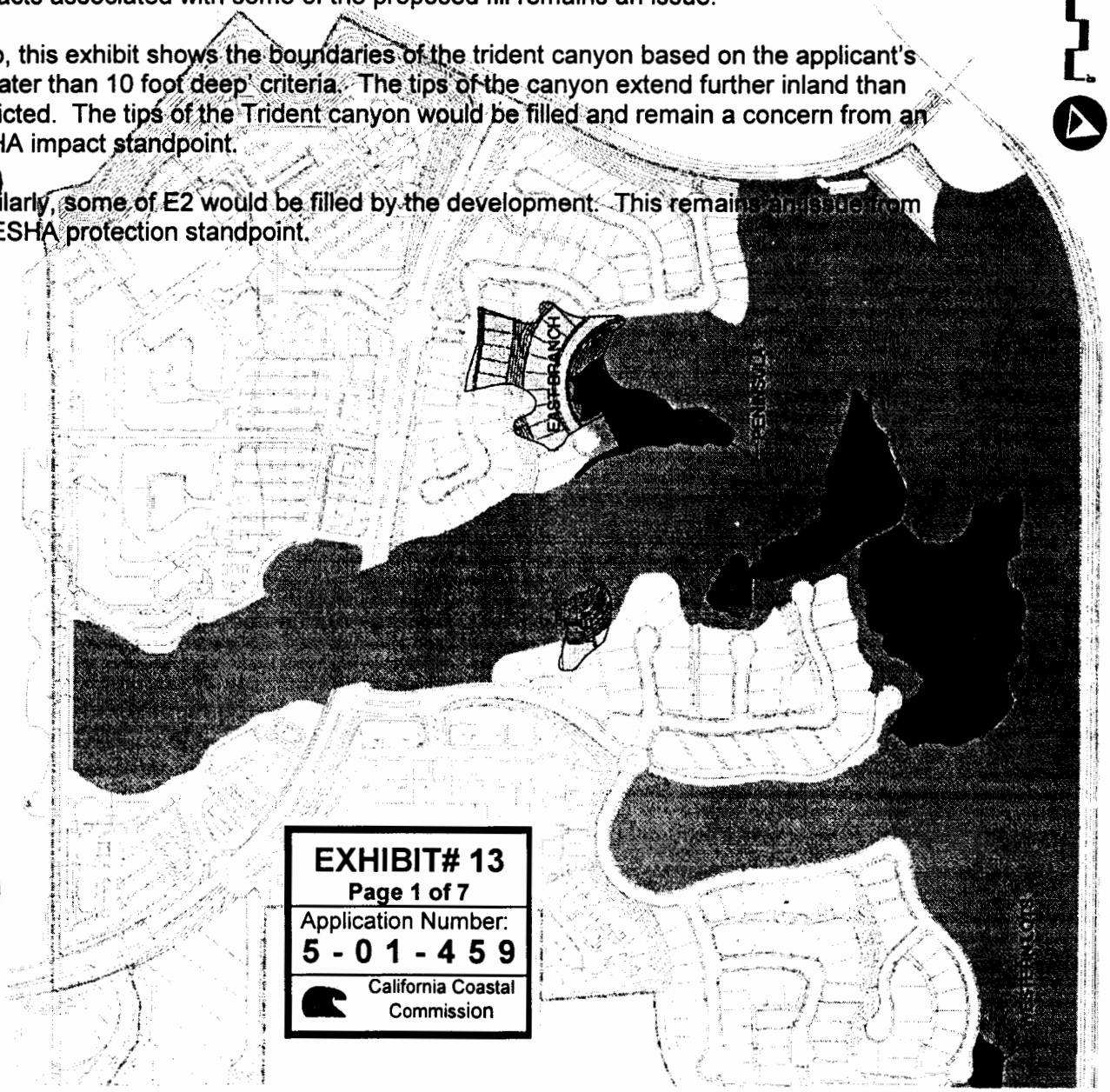


Landform Issue Areas
REVISED EXHIBIT E

Note: This Exhibit was prepared by the applicant. The designation of 'resolved concern areas' is only reflective of 'resolution' with respect to landform alteration issues. While the issue of landform alteration may be largely resolved in the identified areas, biological impacts associated with some of the proposed fill remains an issue.

Also, this exhibit shows the boundaries of the trident canyon based on the applicant's 'greater than 10 foot deep' criteria. The tips of the canyon extend further inland than depicted. The tips of the Trident canyon would be filled and remain a concern from an ESHA impact standpoint.

Similarly, some of E2 would be filled by the development. This remains an issue from an ESHA protection standpoint.



10/25/02
1 Acre

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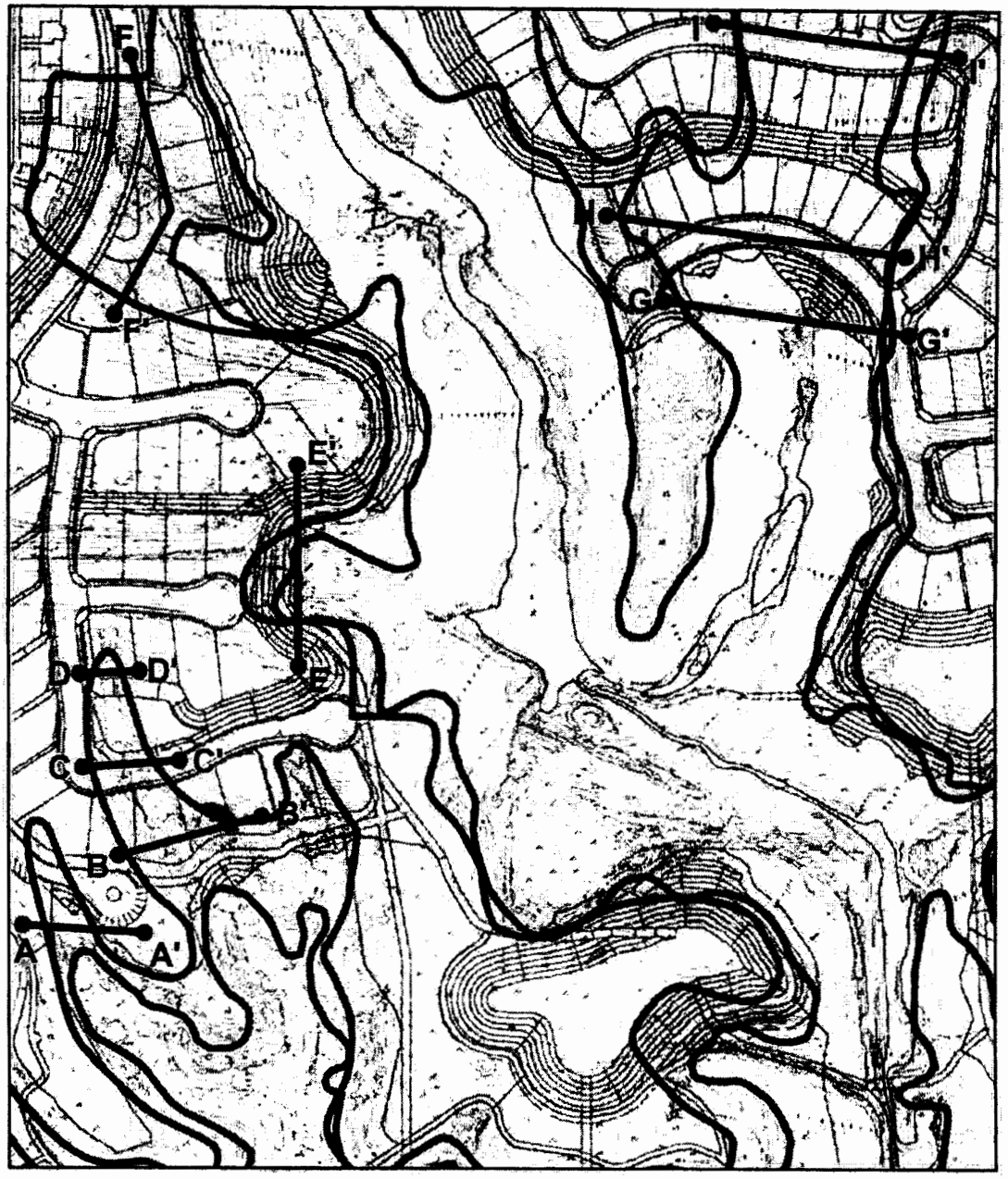
LANDFORM ALTERATION



LEGEND

- EXHIBIT 32 - Top of Slope
- APPLICANT - Top of Slope
- CROSS SECTION LINE (TYP.)

0 150 300 Feet

December 3, 2002

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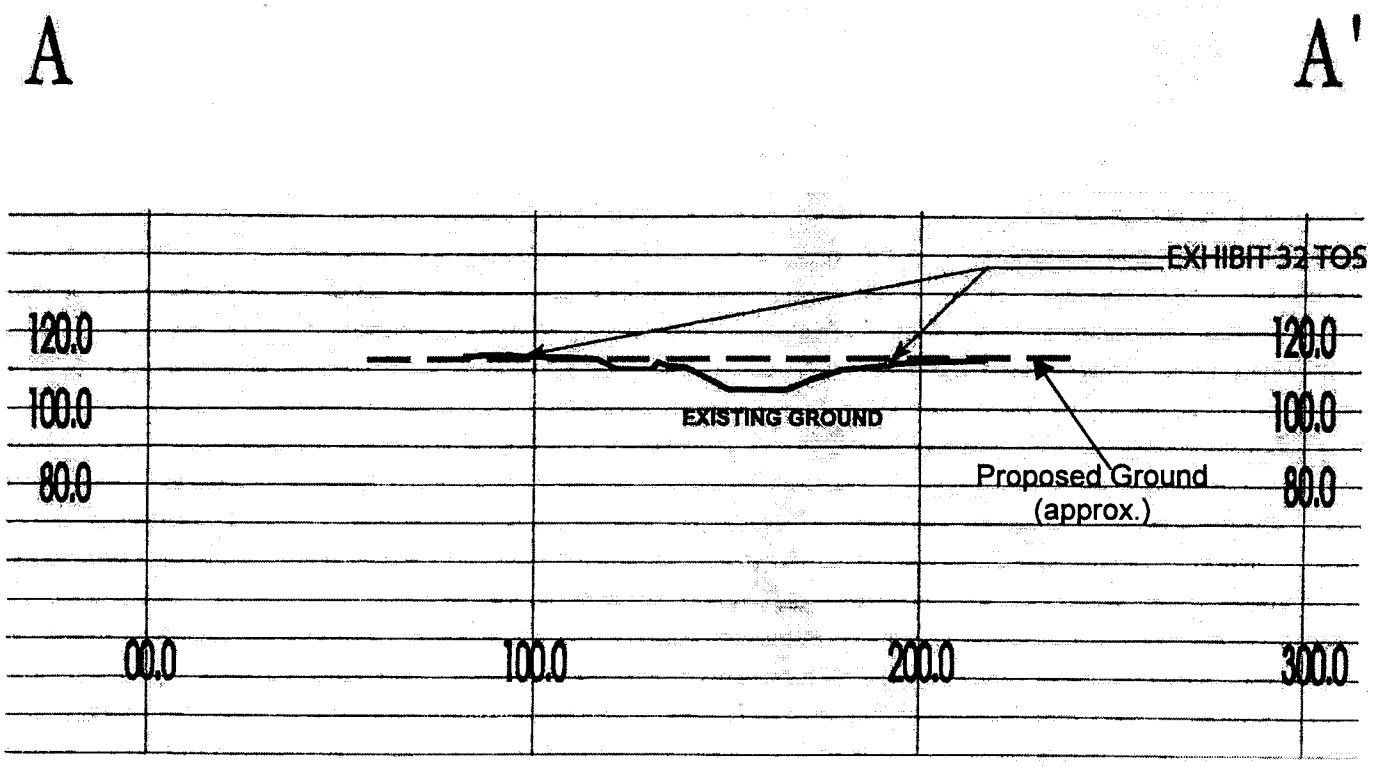
LANDFORM ALTERATION



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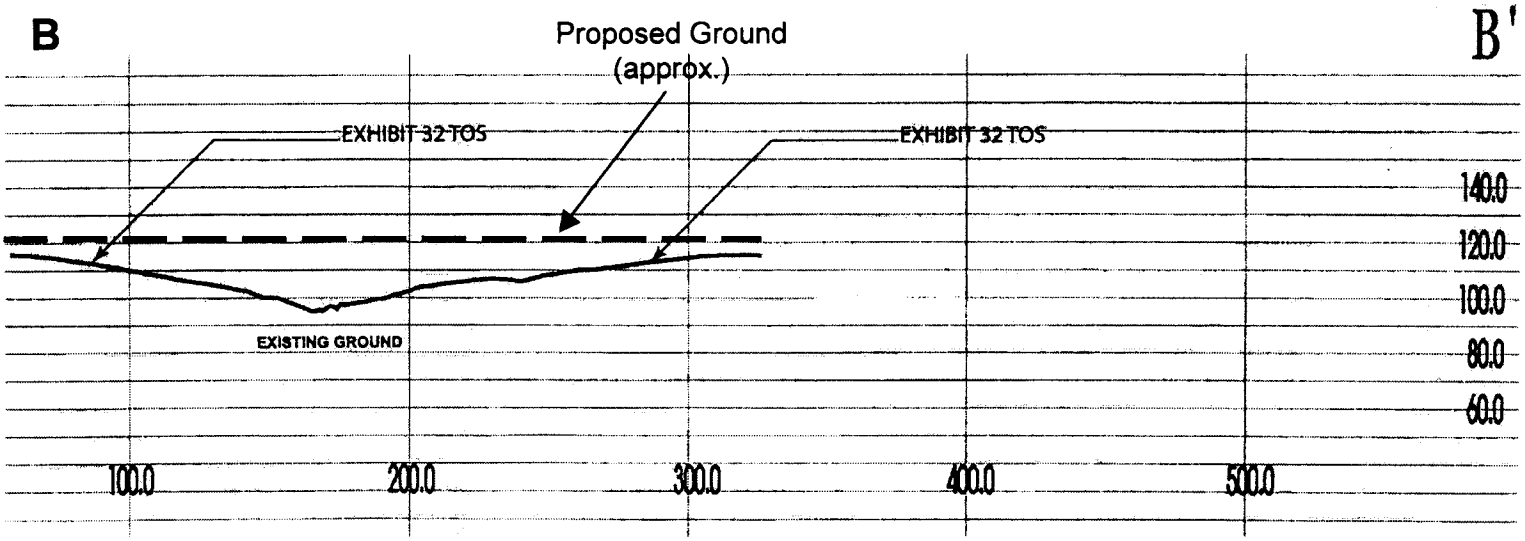

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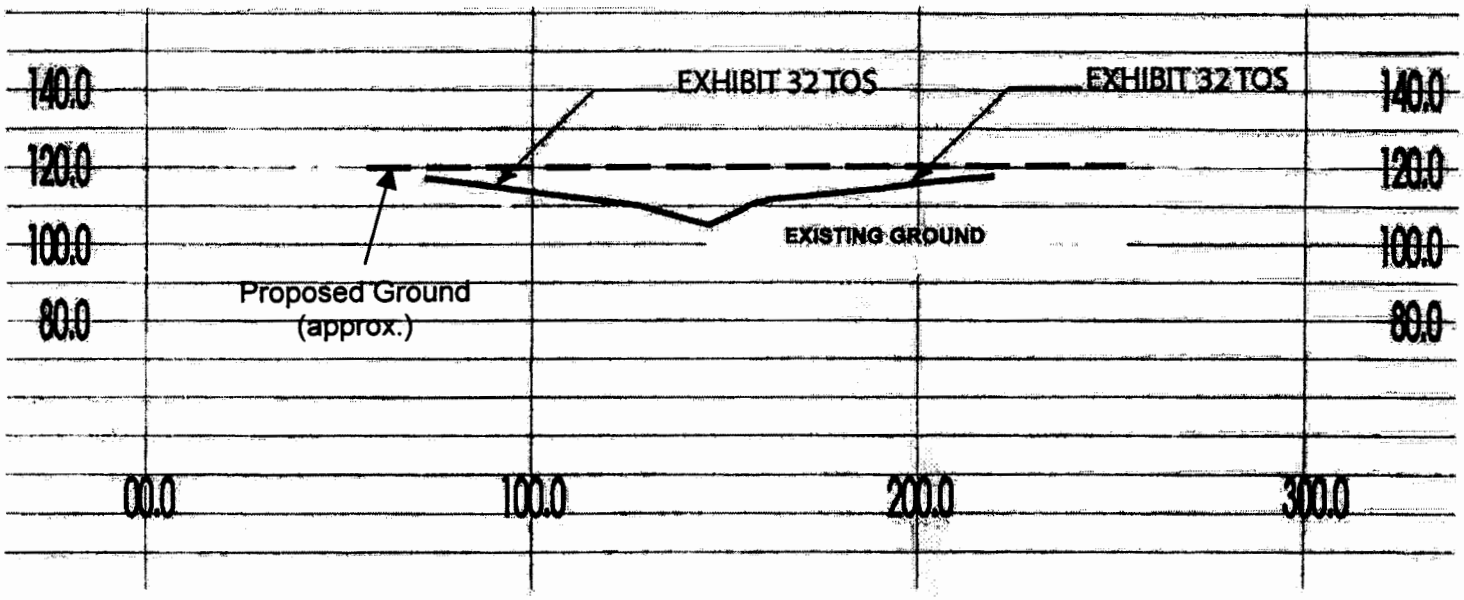
LANDFORM ALTERATION

C

C'



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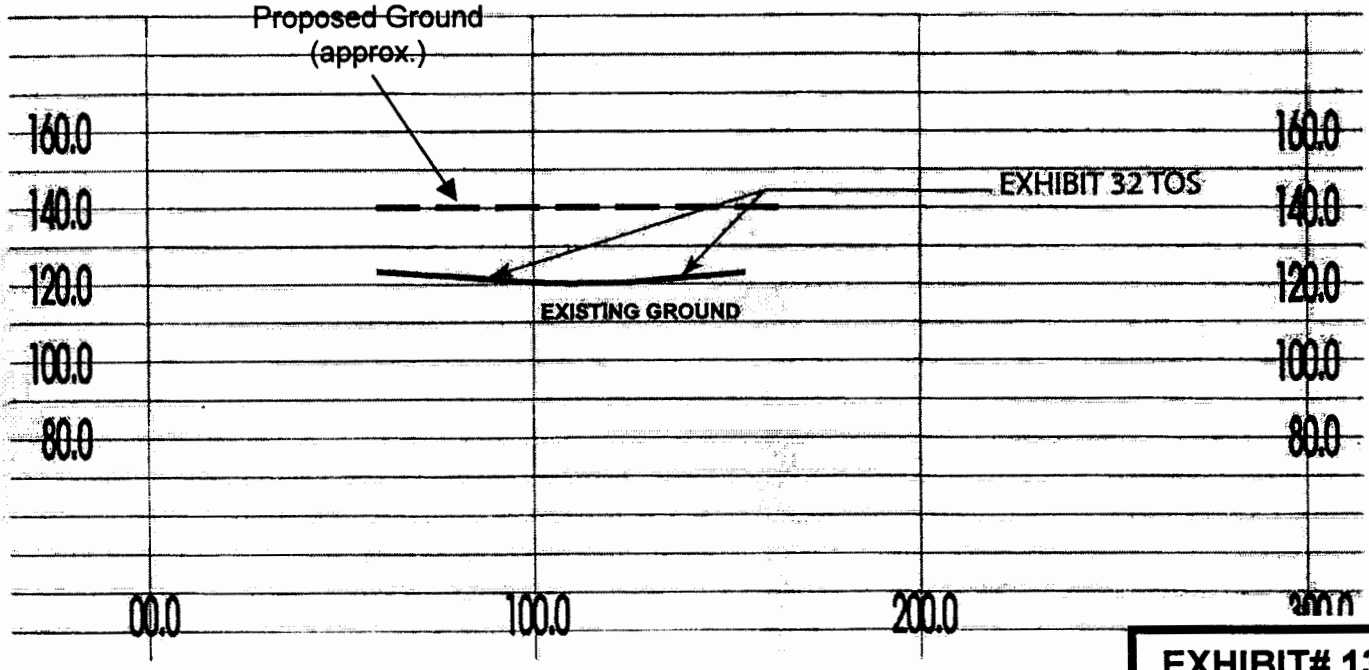
D

D'



Horizontal a

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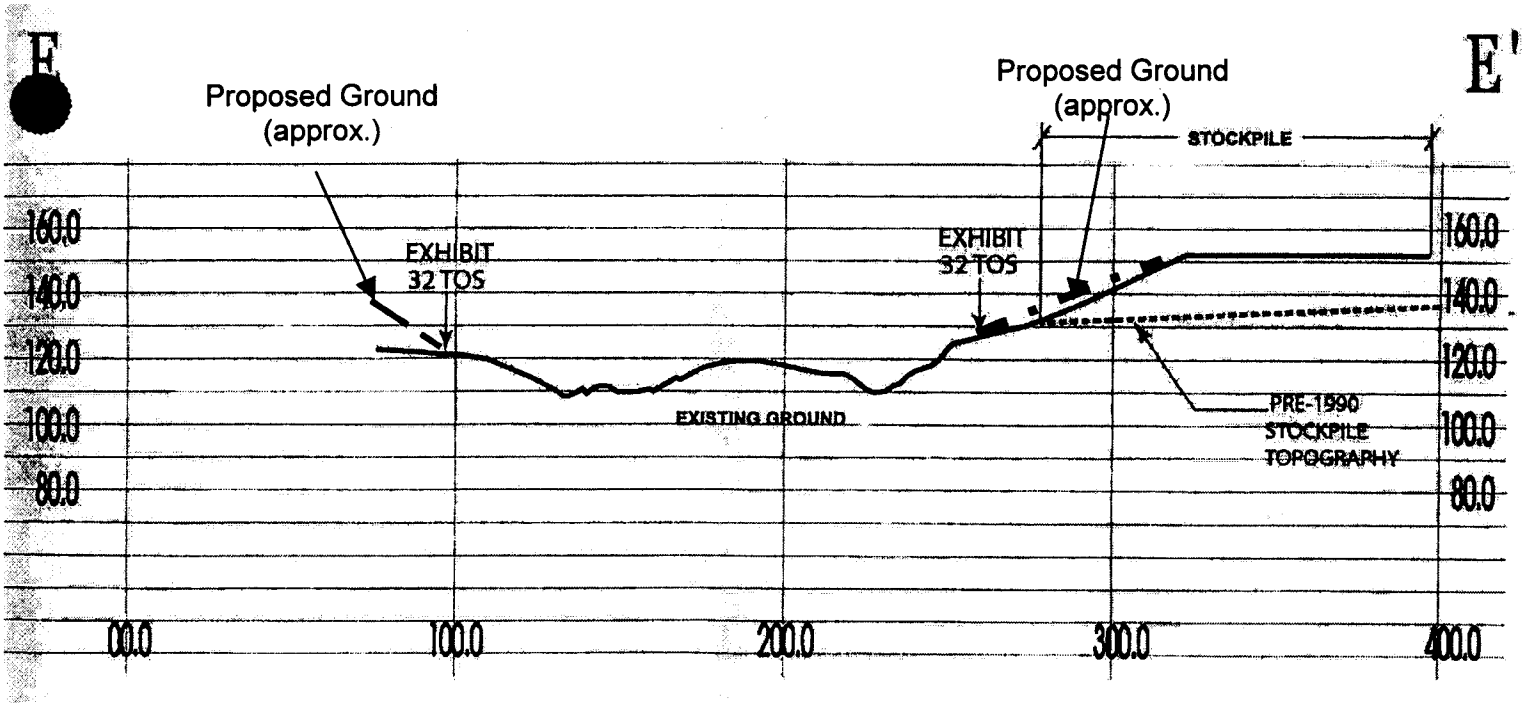
LANDFORM ALTERATION



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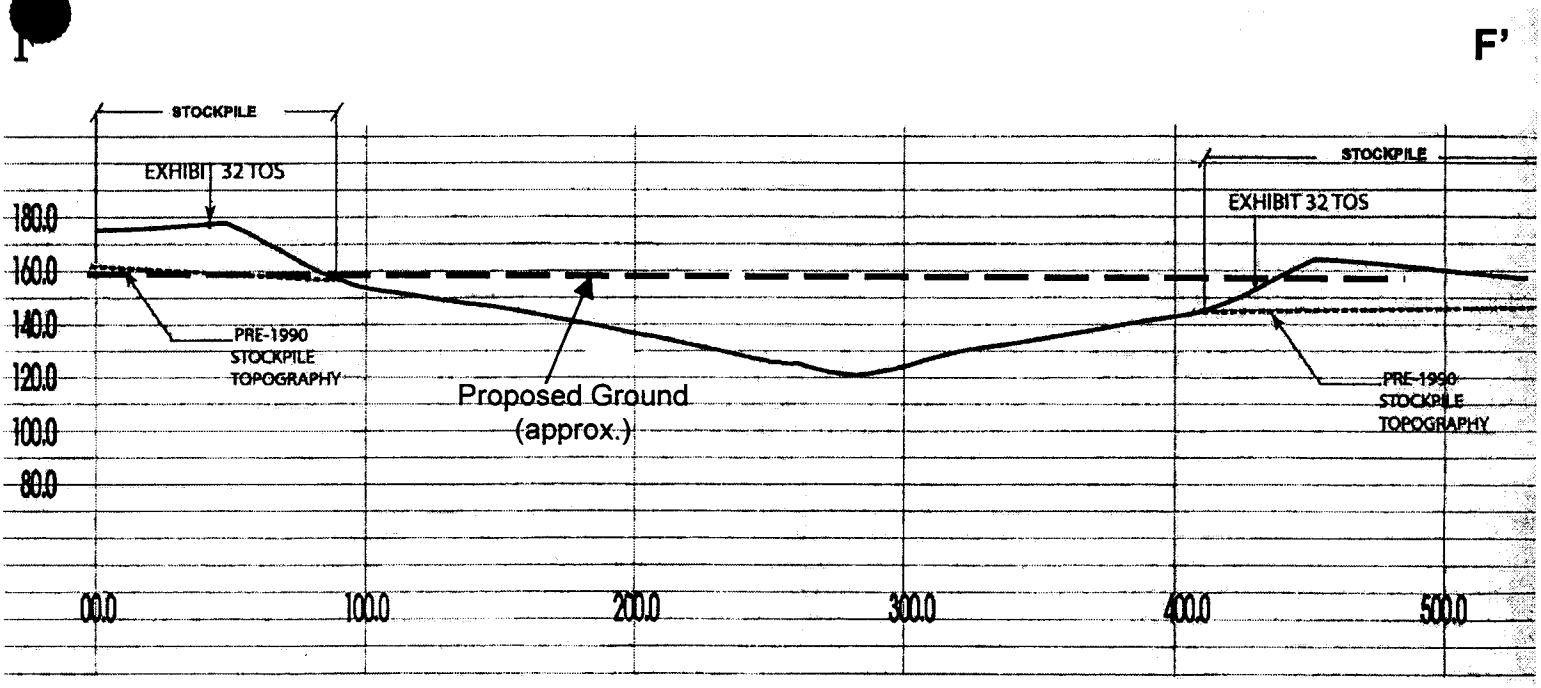

Horizontal and Verti

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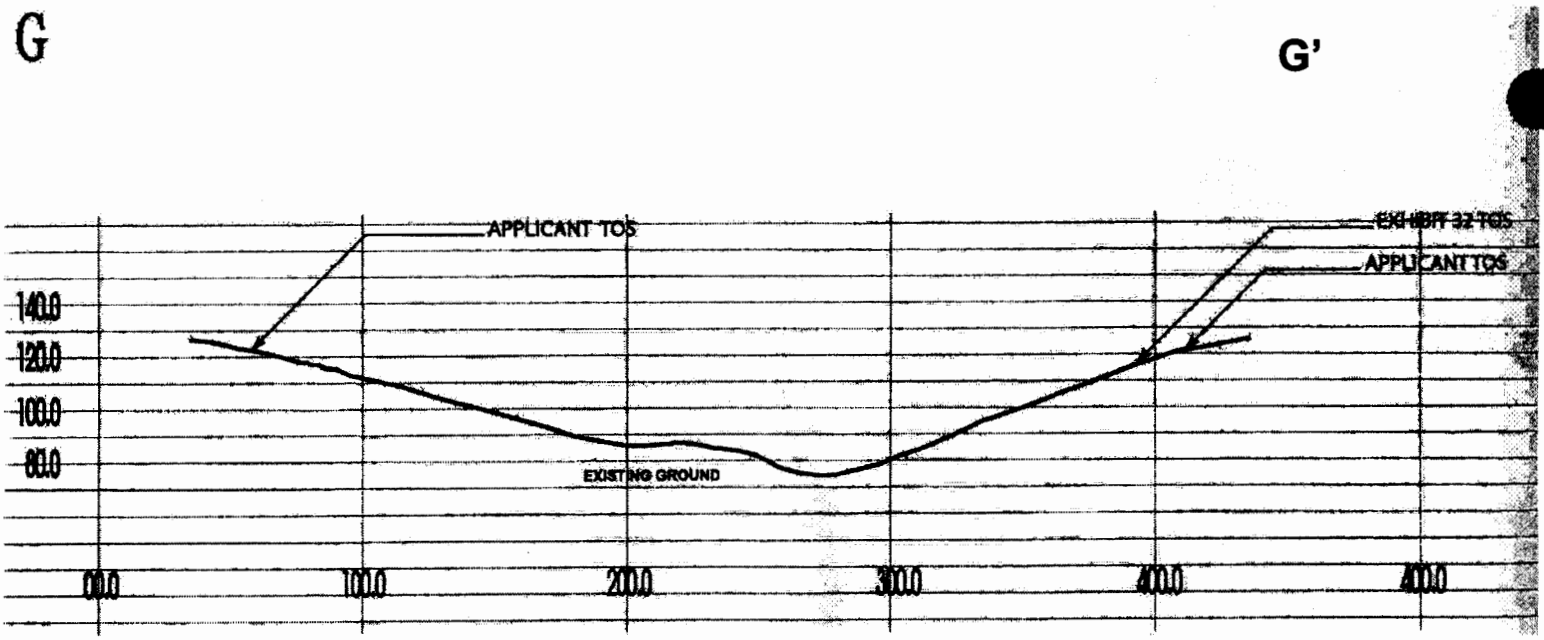
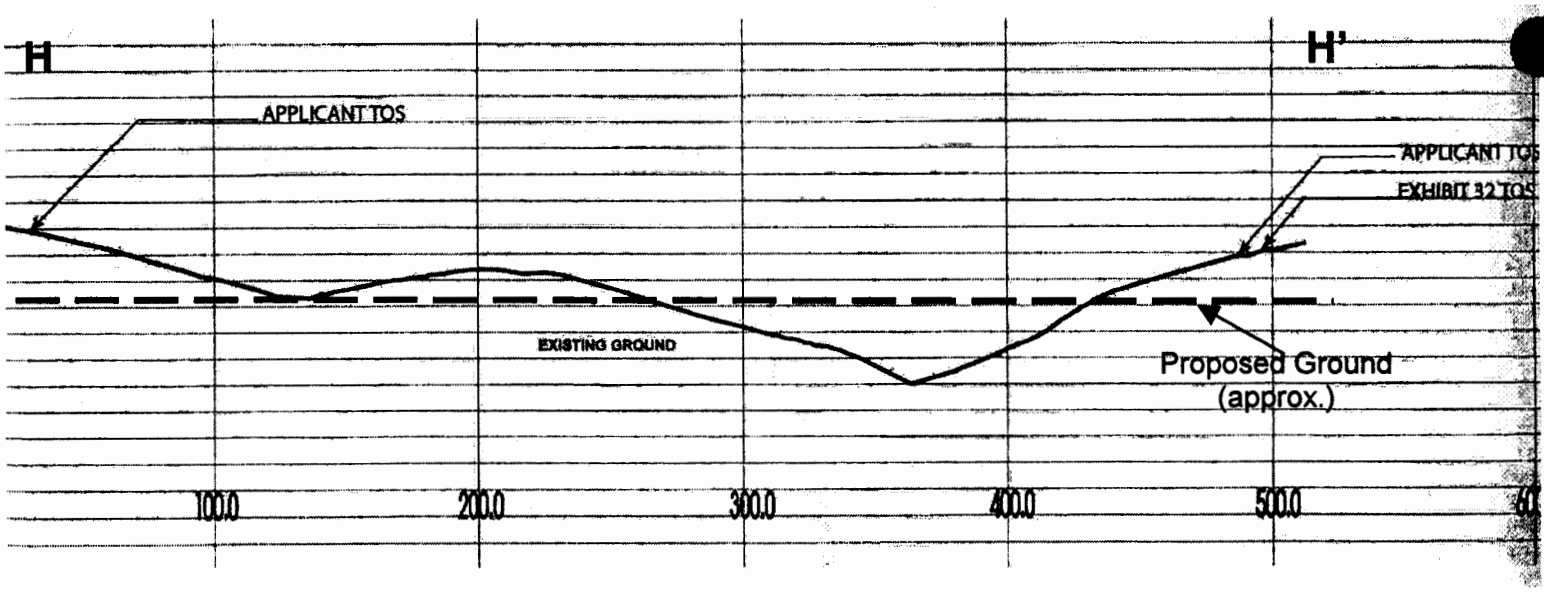
LANDFORM ALTERATION





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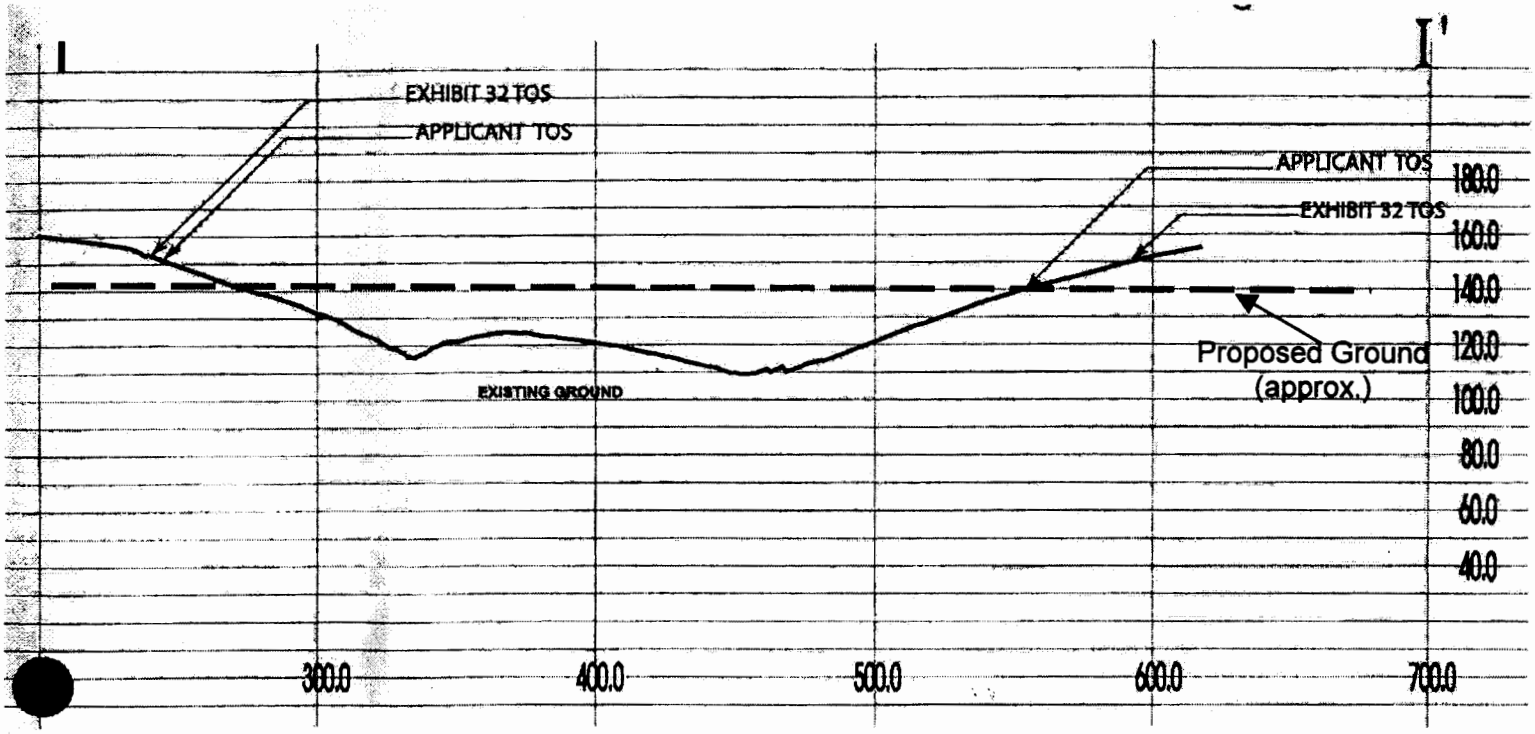
LANDFORM ALTERATION



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LEGEND

- Flow Diverter
- Underground Detention (10' RCP) and Storage for First Flush and Low Flow
- Valve & Telemetry
- Continuous Deflection Separation (CDS) Unit
- Proposed Pipe System to Water Reclamation Plant
- Existing Sewer Line to Water Reclamation Plant
- Proposed Storm Drain Pipe
- Settlement and Biofiltration Basin (Extended Detention Basin)
- Low Flows Diverted to Water Reclamation Plant
- First Flush and Low Flows Diverted to Water Reclamation Plant
- Pico Bioswale
- Pico Bioswale Tributary Area

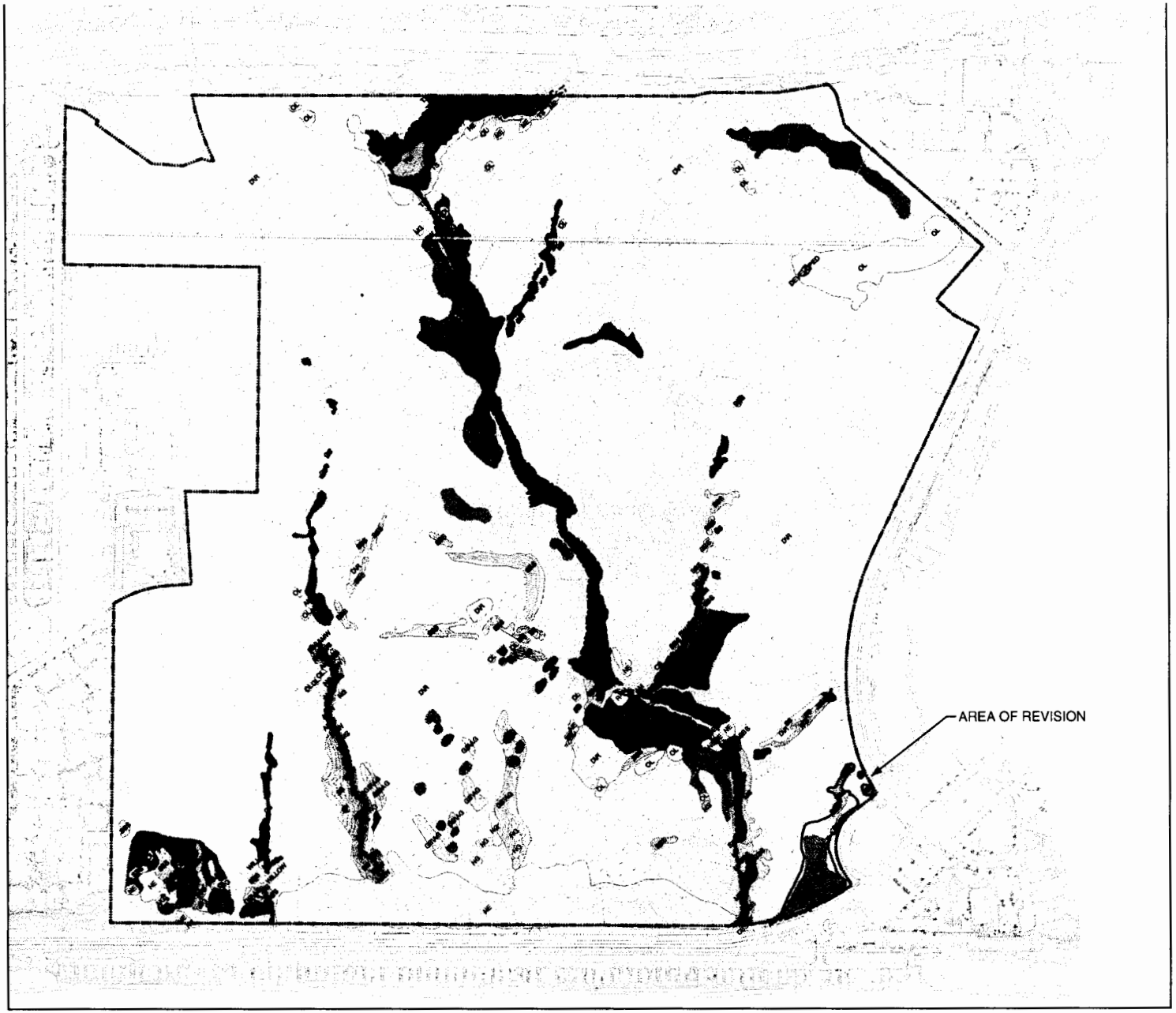
NOTE: Telemetry to be Controlled at Water Reclamation Plant

WATER QUALITY PROGRAM HIGHLIGHTS

- Year Round Low Flows Diverted to Water Reclamation Plant Including Off-site Residential, Freeway and School.
- All On-site First Flush Treated by Catch Basin Filters.
- First Flush Underground Storage System to Water Reclamation Plant for Off-site Residential, Freeway and On-site Commercial Site.
- Continuous Deflection Separation Units to be Placed in All New Storm Drain Systems.
- Total 63.2 Acres Off-site Area Included in Treatment Program.
- City to Maintain First Flush Underground Storage System.

Revised

MARBLEHEAD COASTAL
Water Quality Plan



Marblehead Coastal

Revised GLA Vegetation Communities

- Property Line (9/28/01)
- Coastal Zone Boundary
- Delineated Wetlands Boundary 1999
- RECON Surveyed Dudleya (8/01)

	Vegetation	Vegetation Code	Map Code	Acres within Coastal Zone	Acres Outside Coastal Zone	Total Acreage
Scrub	Coastal Bluff	2.1	CBS	1.33	0	1.33
	Southern Willow Scrub	--	SWS	0.07	0.01	0.08
	Sagebrush	2.3.6	SS	1.84	0	1.84
	Coyote Bush	2.3.9	CB	3.76	0.25	4.00
	Salt Brush	2.7	SBS	3.34	0	3.34
	Coyote Bush\ Saltbush	--	CB/SBS	1.56	0	1.56
	Mixed Scrub	--	MS	0.65	0	0.65
	Mixed Scrub/ Annual Grassland	--	MS/AG	0.82	0	0.82
	Southern Cactus Scrub	--	SCS	0.08	0	0.08
Grassland	Annual Grassland	4.1	AG	1.43	0.47	1.90
	Golden Bush\ Annual Grassland	--	GB/AG	2.00	0	2.00
	Needlegrass	4.3	NG	0.62	0.02	0.64
Marsh	Alkali Marsh	6.3	AM	3.44	0	3.44
	Alkali Meadow	6.3	AMW	0.56	0	0.56
	Seasonal Wetland	--	SW	0.21	0	0.21
	Freshwater Marsh	6.4	FM	0	0.35	0.35
Riparian	Mulefat Scrub	7.3	MF	0.89	1.85	2.74
	Willow	--	Willow	0.04	0	0.04
Developed	Ornamental Landscaping	15.5	OL	2.64	0.75	3.39
	Developed	--	Developed	0.03	0	0.03
Disturbed	Disturbed or Barren	16.1	DIR	163.41	40.06	203.47
Other	Pine Woodlands	--	PW	3.67	1.58	5.25
	Naturalized Exotics	--	NE	9.05	0.25	9.30
	Tamarisk Scrub	--	TS	0	0.91	0.91
	Rockpile	--	R	0.08	0	0.08
Total				201.36	46.50	247.88

Source: Glenn Lukos Associates December 2002

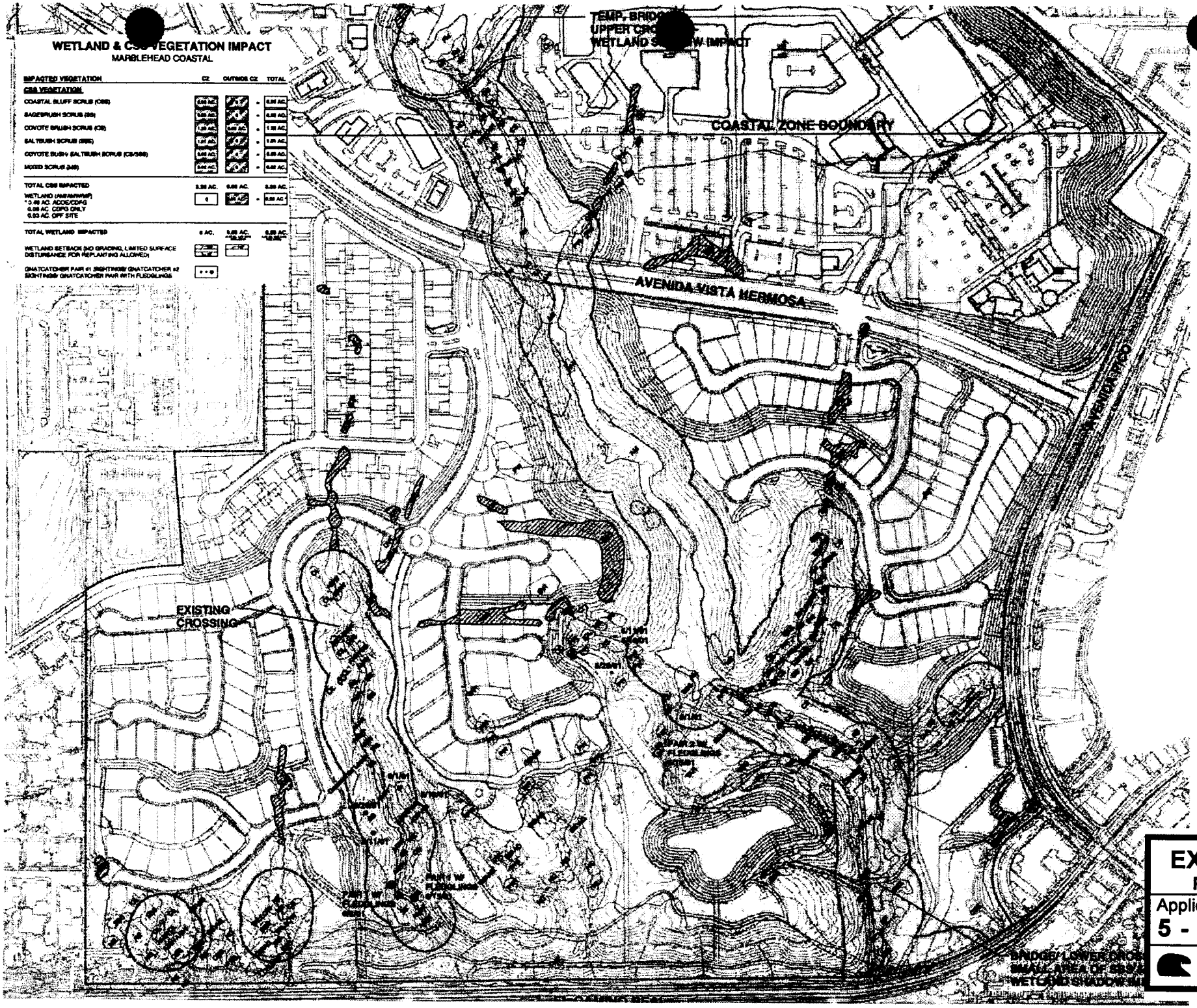
Date: December 12, 2002

0 400 800 Feet

Note: Acre revisions noted in bold.

RBF CONSULTING GIS

EXHIBIT 15



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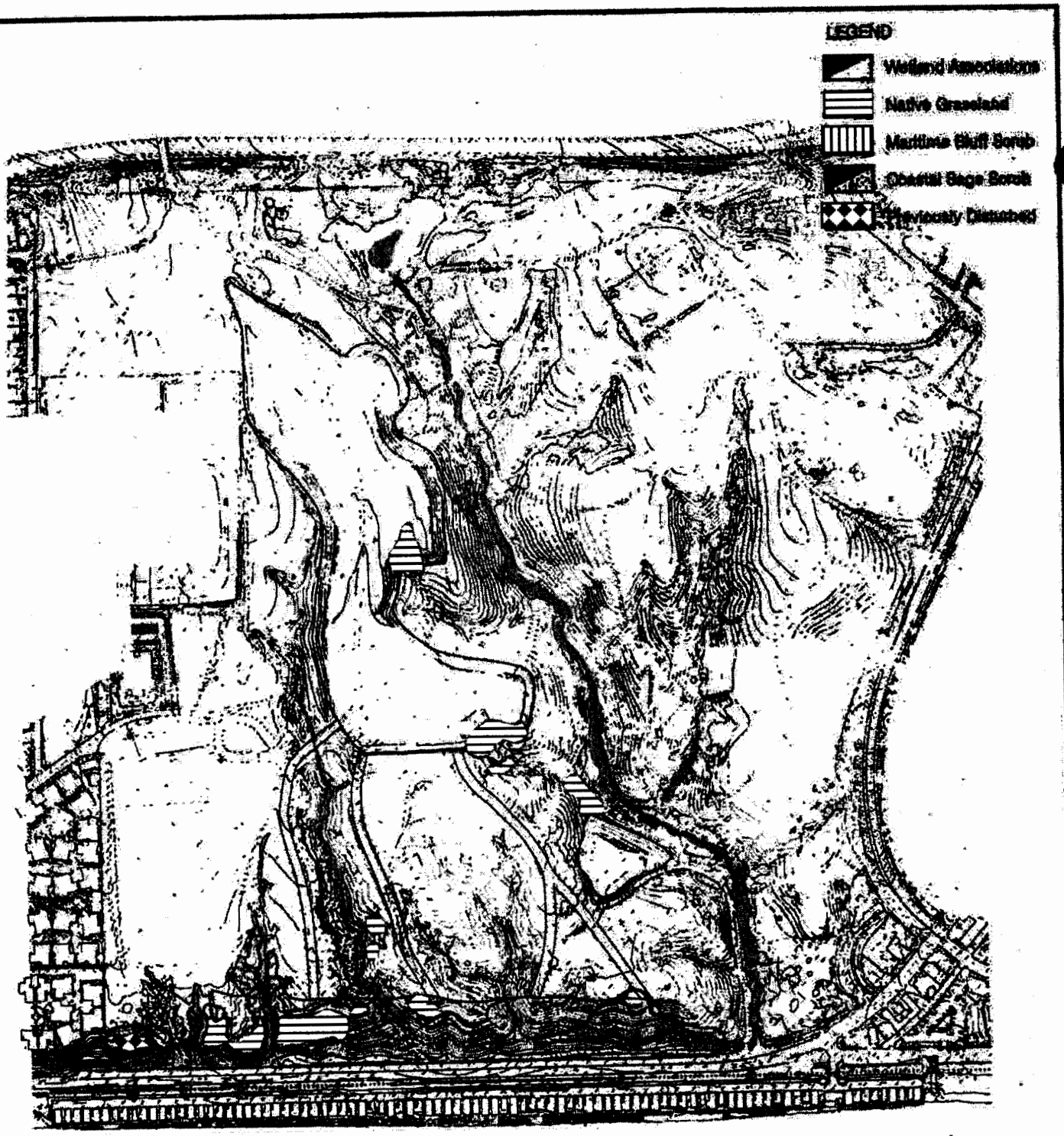

Vegetation Communities Mapped in
Areas of Emergency Grading

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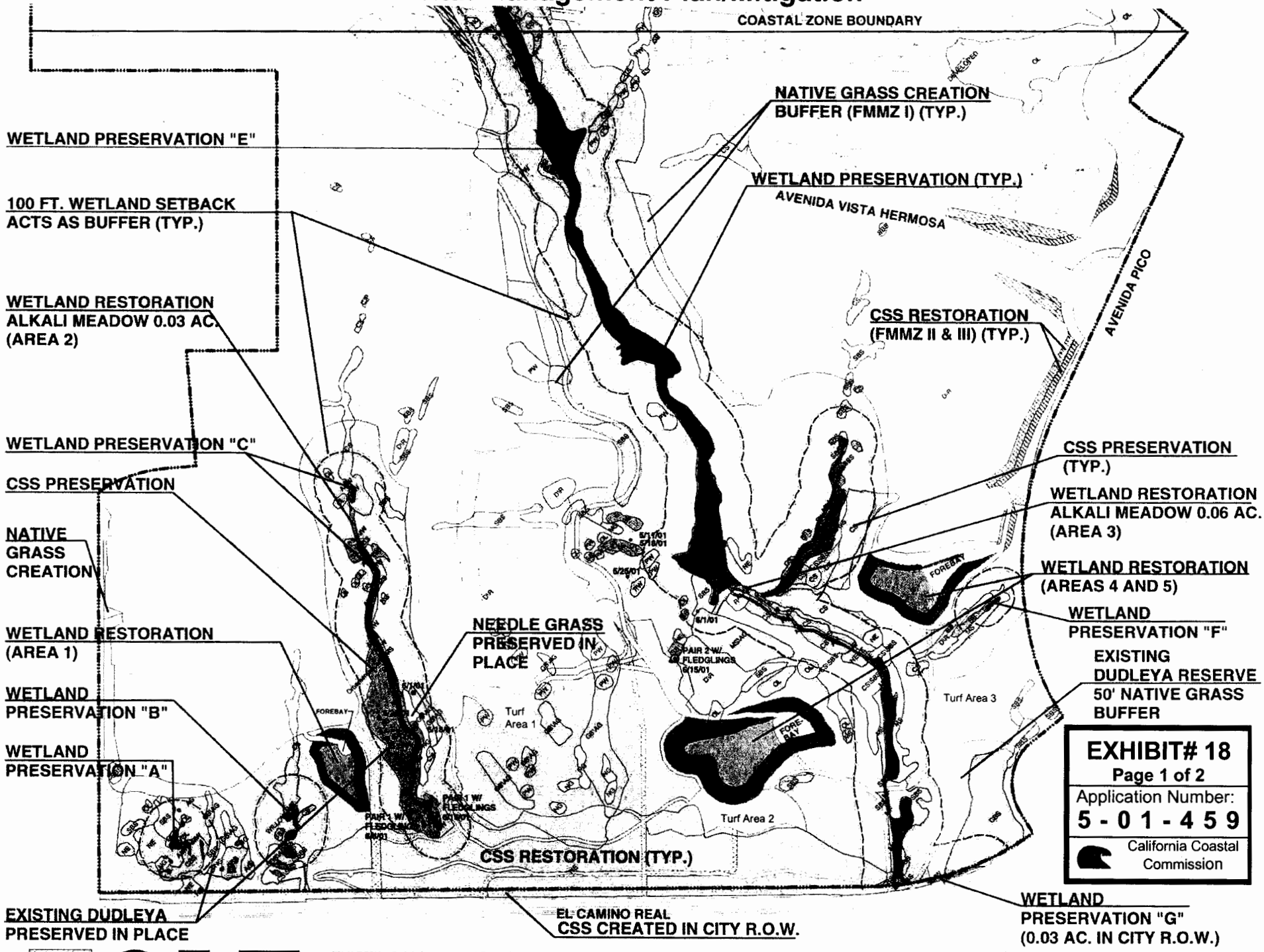
Habitat Management Plan/Mitigation



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Habitat Management Plan/Mitigation

314 PLAN OVERLAY ON HABITAT MANAGEMENT PLAN

MARBLEHEAD COASTAL

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I. PRESERVED VEGETATION CSS VEGETATION	CZ	OUTSIDE CZ		TOTAL
COASTAL BLUFF SCRUB (CBS)	1.74 AC	0	=	1.74 AC
SOUTHERN WILLOW SCRUB (SWS)	0.07 AC	0.01 AC	=	0.08 AC
SAGEBRUSH SCRUB (SS)			=	1.81 AC
COYOTE BRUSH SCRUB (CS)			=	2.67 AC
SALTBUSH SCRUB (SBS)	1.29 AC	0	=	1.29 AC
COYOTE BUSH/ SALTBUSH SCRUB (CBS/SBS)	1.53 AC	0	=	1.53 AC
MIXED SCRUB (MS)	0.66 AC	0	=	0.66 AC
MIXED SCRUB/ ANNUAL GRASSLAND (MS/AG)	0.82 AC	0	=	0.82 AC
A. TOTAL CSS PRESERVED	10.42 AC	0.18 AC		10.60 AC
DUDLEYA (INCLUDED IN CSS 0.14 AC. RECON SURVEY, 8/01)				
B. WETLAND (AM/AMW/MF/MF/SW/WILLOW) PRESERVED			=	6.82 AC
C. NEEDLEGRASS (NG) PRESERVED	0.62 AC	0.02 AC	=	0.64 AC
GNATCATCHER PAIR #1 SIGHTINGS/ GNATCATCHER #2 SIGHTINGS/ GNATCATCHER PAIR WITH FLEDGLINGS				
TOTAL PRESERVED VEGETATION (I. A-C)	**16.18 AC**	**1.88 AC**		**18.06 AC**

II. RESTORED / CREATED HABITAT	CZ	OUTSIDE CZ		TOTAL
A. CSS RESTORED / CREATED	60.87	7.06	=	67.93
B. CSS/FMMZ* II			=	
C. CSS/FMMZ* III			=	
D. CSS ON EASEMENT (LIMITED SURFACE DISTURBANCE ALLOWED)	0.95 AC	0	=	0.95 AC
E. CREATED WETLAND (AM/AMW/MF) (EXCLUDES BASIN SEDIMENT FOREBAYS 0.4 AC.)			=	1.76 AC
F. CREATED WETLAND - MIXED RIPARIAN/SCRUB ON SLOPE OF DETENTION BASIN			=	2.87 AC
BUFFERS				
G. NATIVE GRASS	1.33 AC	0	=	1.33 AC
H. NATIVE GRASSLAND/FMMZ* I	3.16 AC	0	=	3.16 AC
I. WETLAND SETBACK (NO GRADING, LIMITED SURFACE DISTURBANCE FOR REPLANTING ALLOWED)	100' / 50'	100'		
	(35.34)	(4.28)	=	(39.62)
* FMMZ = FUEL MANAGEMENT AND MONITORING ZONE				
TOTAL RESTORED VEGETATION (II. A, E, F, G)	**66.83 AC**	**7.06 AC**	=	**73.89 AC**
TOTAL RESTORED VEGETATION (II. B, C, D, H)	**5.74 AC**	**0.28 AC**	=	**6.02 AC**
III. PRESERVED WETLAND "G" ON ADJOINING CITY RIGHT OF WAY (EL CAMINO REAL)	**0.03 AC**	**0**	=	**0.03 AC**
IV. CSS CREATED ON ADJOINING CITY RIGHT OF WAY (EL CAMINO REAL)	**1.64 AC**	**0**	=	**1.64 AC**
CSS ON EASEMENT OFF SITE	**0.04 AC**	**0**	=	**0.04 AC**

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5 - 0 1 - 4 5 9
California Coastal Commission

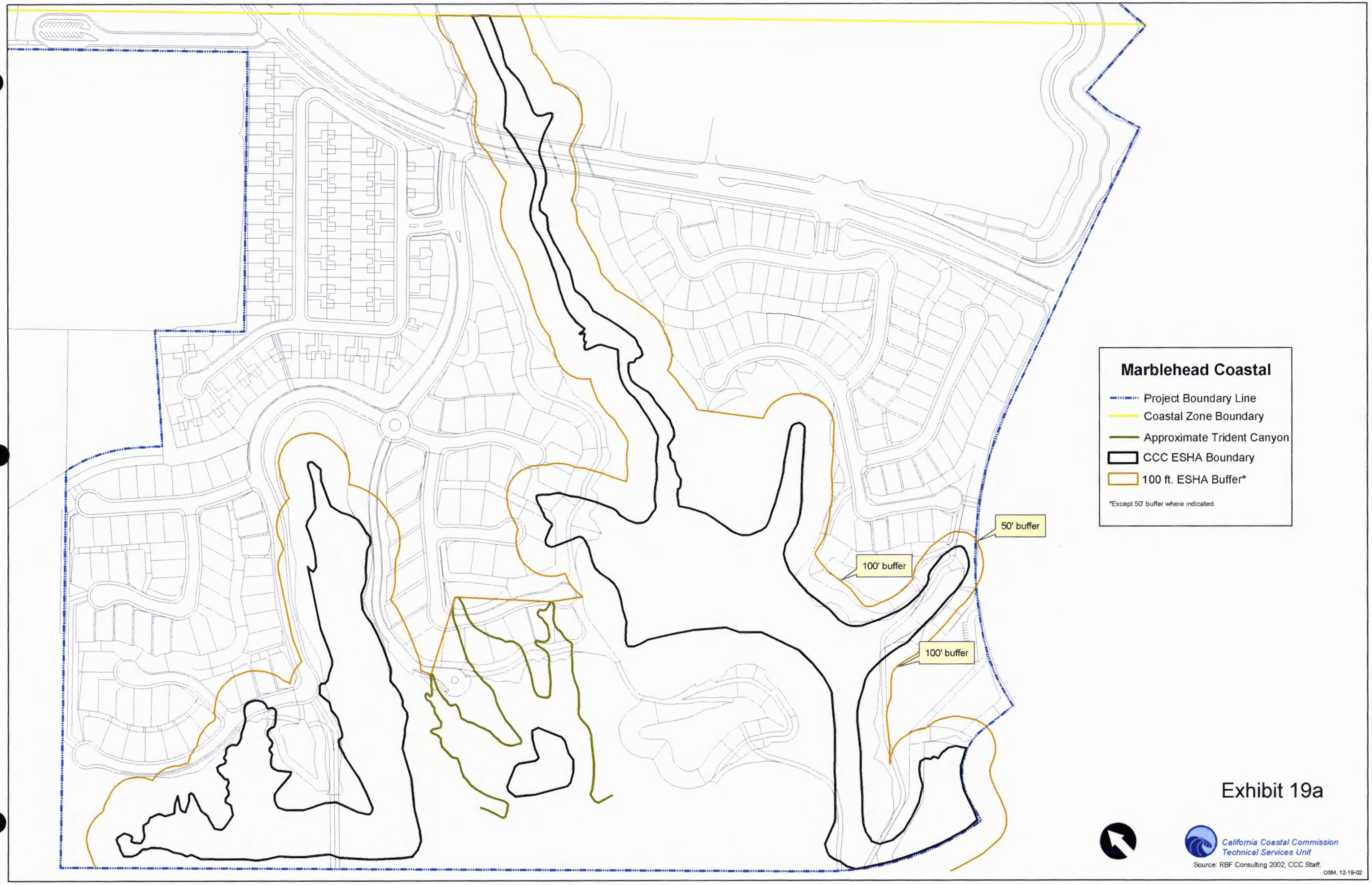

Exhibit 19a

California Coastal Commission
Technical Services Unit

Source: RBF Consulting 2002, CCC Staff.

DSM, 12-19-02

Exhibit 19b

California Coastal Commission
Technical Services Unit

Source: RBF Consulting 2002, CCC Staff.

DSM, 12-19-02

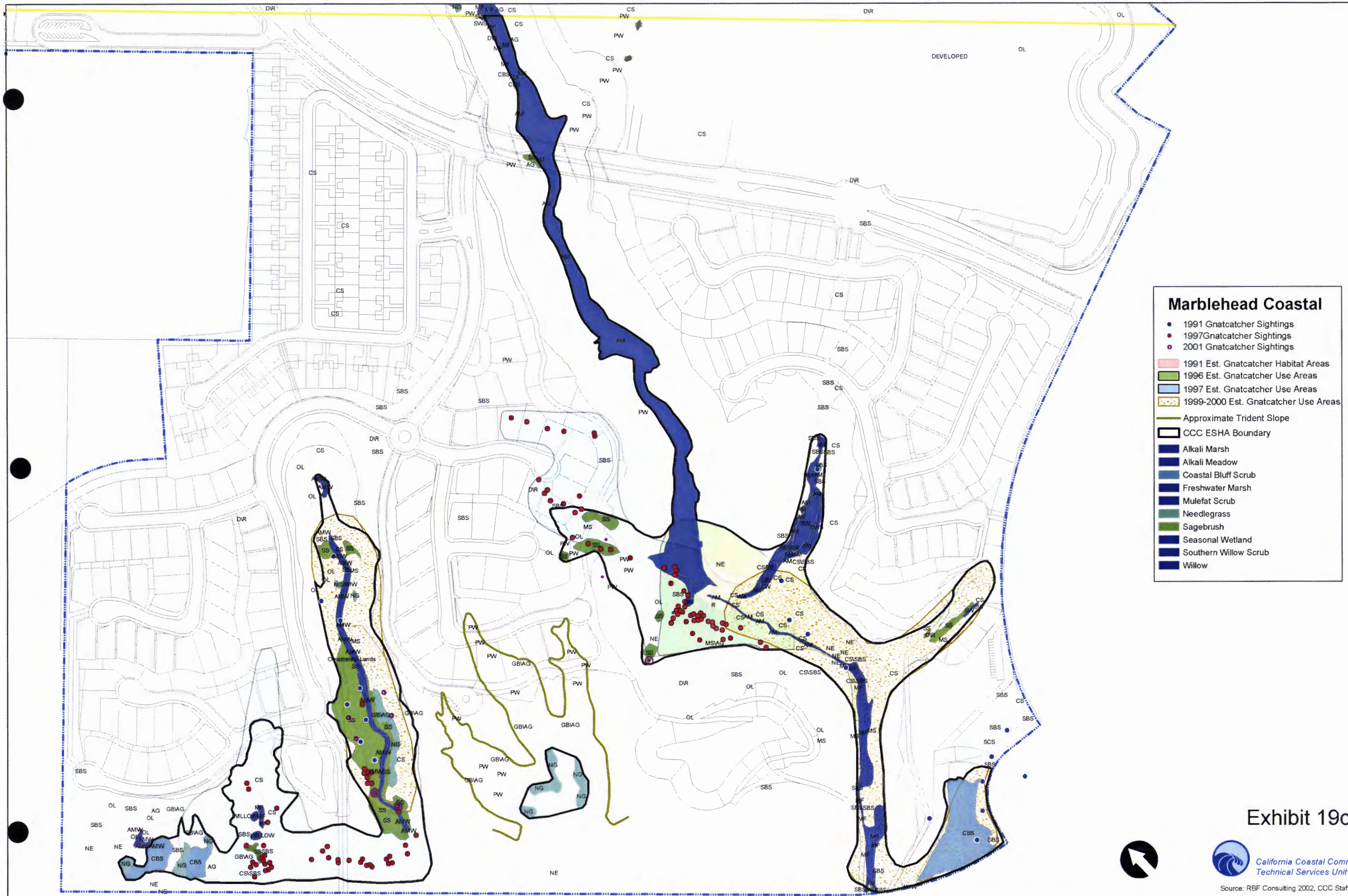

Exhibit 19c

California Coastal Commission
Technical Services Unit

Source: RBF Consulting 2002, CCC Staff.

DSM, 12-19-0

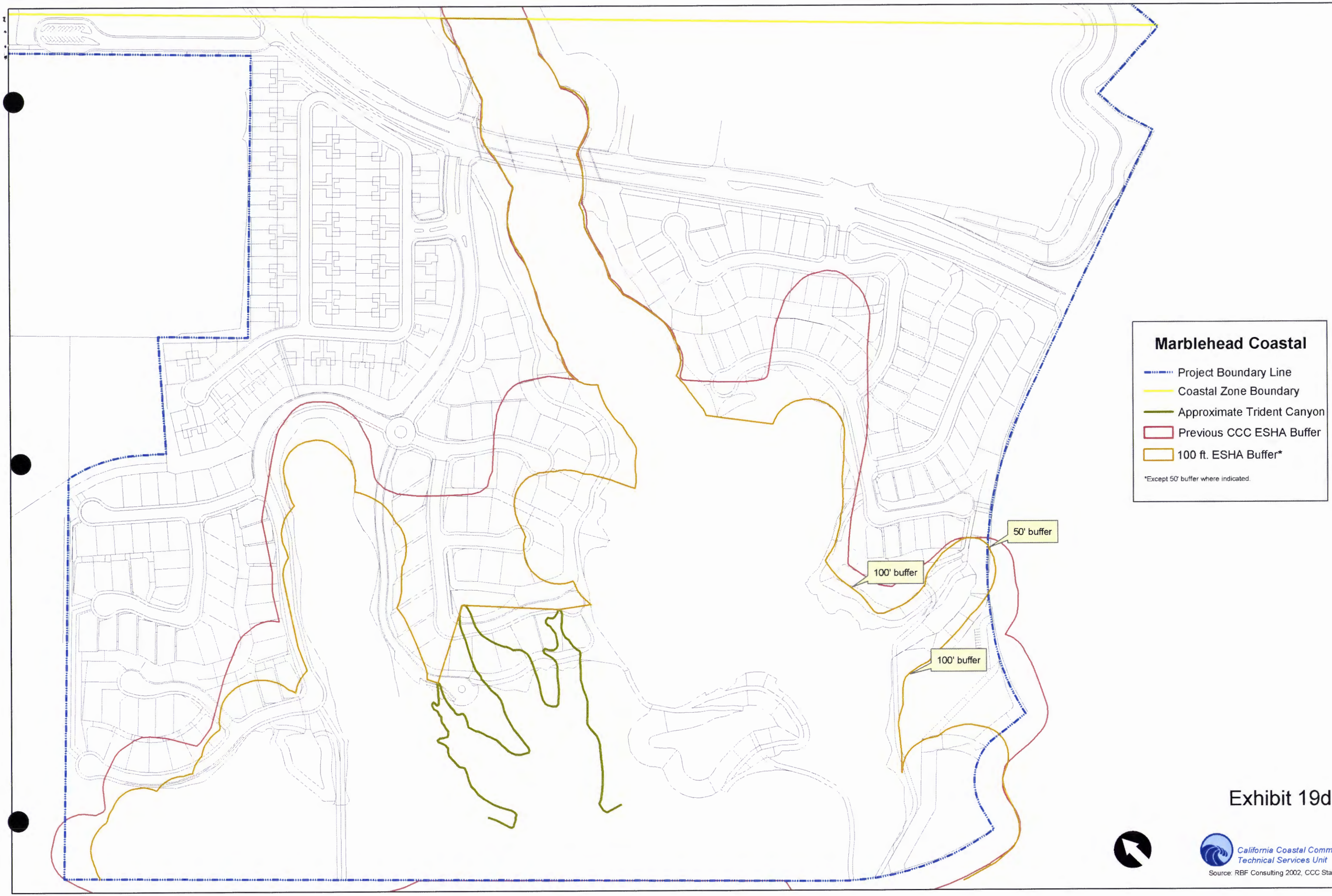

Exhibit 19d

California Coastal Commission
Technical Services Unit

Source: RBF Consulting 2002, CCC Staff.

DSM, 12-19-

DEPARTMENT OF FISH AND GAME
South Coast Region - Field Office
4665 Lampson Avenue, Suite C
Los Alamitos, California 90720
(562) 493-6897

RECEIVED
MAR 21 2002
JIM JOHNSON

RECEIVED
South Coast Region
MAR 22 2002
CALIFORNIA
COASTAL COMMISSION

March 13, 2002

Jim Johnson
MT No. 1, LLC
16592 Hale Ave.
Irvine, CA 92606-5005

Subject: Amendment No. 1 to Lake and Streambed Alteration Agreement (SAA) No. 5-378-99 for the Marblehead Coastal Project

Dear Mr. Johnson:

We have reviewed your request to amend Streambed Alteration Agreement (SAA) No. 5-378-99, the Marblehead Coastal Project, a 250.6-acre residential and commercial development, located in the City of San Clemente, Orange County, California. This project is bounded on three sides by Interstate 5 (San Diego Freeway), Avenida Pico, and El Camino Real (Pacific Coast Highway).

As amended, impacts to streambeds have been reduced from 1.94 to 1.23 acres. Mitigation has thus been modified to reflect the reduction in impacts. The requirement for offsite mitigation at the Gobernadora Ecological Restoration Area (GERA) has been deleted, while onsite wetland creation has been increased. In addition, vegetated buffer zones around wetland habitat areas have been increased from a minimum of 50-feet to 100-feet.

Pursuant to Fish and Game Code Section 1600 et seq., this letter, when countersigned by you, amends the following conditions of the original agreement as follows:

2. The Operator proposes to alter the streambed to construct the Marblehead Coastal Project, a residential and commercial development on a 250.6-acre site. The site (on site and immediately adjacent and off site) has 7.36 acres of wetlands and 0.89 acre of ephemeral drainages. The project proposes to impact **1.23** acres of **streams and** drainages within the Department's jurisdiction **including: 0.49** acre **of** mulefat scrub onsite; 0.03 acre mulefat scrub immediately adjacent and offisite; 0.03 acre freshwater marsh; and **0.68** acre **of** ephemeral drainages. An additional **0.02** acre of preserved alkali marsh will have shading impacts. Total drainage area within the Department's jurisdiction being preserved on the site is **6.98** acres: 3.44 acres alkali marsh; 0.55 acre alkali meadow; **2.25** acre willow/mulefat scrub; 0.32 acre freshwater marsh; **0.21** acre seasonal wetland **and 0.21 acre of ephemeral drainages**. An additional 0.04 acre of **isolated** alkali meadow, **not associated with a stream or lake**, will be preserved adjacent to El Camino Real.

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The project is bounded on three sides by Interstate 5 (San Diego Freeway), Avenida Pico, and El Camino Real (Pacific Coast Highway), in the City of San Clemente.

3. The agreed work includes activities associated with No. 2 above. The project area is located in several unnamed drainages with the Department's jurisdiction, including 5 unnamed drainages identified as A-G in the submitted documents, and their tributaries, tributary to the Pacific Ocean, in Orange County. Specific work areas and mitigation measures are described on/in the plans and documents submitted by the Operator, including **"Marblehead Coastal Project Habitat Management Plan," dated November 28, 2001. The Habitat Management Plan shall be implemented as proposed unless directed differently by this agreement/amendment.**

4. The Operator shall not impact more than **1.23** acres of drainages with fill (**0.52** acre mulefat scrub/willow woodland, 0.03 acre freshwater marsh, **0.68** acre ephemeral drainages), and an additional **0.02** acre (alkali marsh) with shading. All impacts are permanent. No temporary impacts are proposed.

5. The Operator shall mitigate as described in the submitted documents and as follows:

A. Create/restore **0.16** acre of alkali marsh onsite, adjacent to existing wetland habitat locations; and

B. Create/restore **4.39** acres of native **emergent wetland and** riparian **scrub** habitat onsite within open space habitat preserve/restoration areas. This wetland habitat is proposed **as alkali meadow and riparian scrub** habitat within three detention basins. The Operator shall ensure that the three basins are self-sustaining native habitat areas, minimizing longstanding open water, and not subject to future maintenance measures such as sediment or vegetation removal or mosquito abatement. Part of the monitoring process shall include evaluation that the basins meet these criteria, or they shall be reconfigured and/or revegetated to meet these criteria.

9. The Department recommends that the project attempt to attain a minimum **100**-foot vegetated buffer of native and/or non-invasive plants around any wetland habitat areas which do not currently meet this minimum buffer amount, in particular the preserved wetland habitats east of the proposed location of Avenida Vista Hermosa and at the most downstream portion of tributary E, lower canyon. **The Department acknowledges that the Operator has generally achieved compliance with a 100-foot buffer requirement with the exception of the isolated seasonal wetland designated as "Preserved Area F" which has a minimum 20-foot horizontal buffer due to its location in a protected ravine and the bridge columns for Avenida Vista Hermosa and the Commercial bridges. Wetland mitigation will be implemented as set forth in Chapter 2 of the Habitat Management Plan.**

13. The Operator is also impacting **7.21** acres of **upland** native **scrub** communities; **0.43** acres of coastal bluff scrub, **0.55** acres of sage brush **scrub, 1.43** acres of coyote brush

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scrub, and 4.80 acres of saltbrush scrub. **Mitigation for these impacts will be provided onsite including creation of 56.02 acres of scrub habitat (plus an additional 1.6 acres of adjacent offsite habitat) and 7.24 acres of native perennial grassland habitat. Scrub and Grassland mitigation will be implemented as set forth in Chapter 3 of the Habitat Management Plan.**

14. A security (e.g. and irrevocable letter of credit, pledge savings account, or CD) for the amount of complete restoration shall be submitted to the Department prior to initiation of construction activities, This amount shall be based upon a cost estimate which shall be submitted to the Department for approval within 30 days of signing this agreement. The security shall be approved by the Department's legal advisors prior to its execution, and shall allow the Department at its sole discretion to recover funds immediately if the Department determines there has been a default. The legal advisors can be contacted at (916)654-3821.

Conditions 5C and 6 in the original Agreement (SAA # 5-378-99), dated December 20, 2000, shall be deleted pursuant to this Amendment.

All other conditions of Agreement 5-378-99 remain in force throughout the new term of the agreement. A copy of said agreement AND THIS AMENDMENT must be kept on site and be shown upon request to Department personnel during all periods of work.

Two copies of this letter are being sent to you. PLEASE RETURN ONE SIGNED ORIGINAL to the Department of Fish and Game at the above address, and retain the other letter for your records and use.

If you have any further questions, please contact me at (562)493-6897.

Sincerely,

Laura Crum

Laura Crum
Environmental Scientist

Concurrence:
Jim Johnson of
MT No. 1, LLC

By [signature] 3/21/02
(Signature) (Date)
CEO Marblehead Coastal Inc. Managing Member
Jimmy D Johnson
(Type or print name and title)

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STATE OF CALIFORNIA-THE RESOURCES AGENCY GRAY DAVIS, Governor

DEPARTMENT OF FISH AND GAME

South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4235

d)

RECEIVED
South Coast Region
JAN 5 2001
CALIFORNIA
COASTAL COMMISSION

December 20, 2000

MT No 1, LLC.
Attn: Jim Johnson
16592 Hale Avenue
Irvine, CA 92606

Dear Mr. Johnson:

Enclosed is Streambed Alteration Agreement #5-378-99 that authorizes work on the Marblehead Coastal project impacting several unnamed drainages in Orange County. This action is authorized under Section 1600 of the Fish and Game Code and has been approved by the California Department of Fish and Game. Pursuant to the requirements of the California Environmental Quality Act (CEQA), the Department filed a Notice of Determination (NOD) on the project on 12/20/2000. Under CEQA regulations, the project has a 30-day statute of limitations on court challenges of the Department's approval under CEQA.

The Department believes that the project fully meets the requirements of the Fish and Game Code and CEQA. However, if court challenges on the NOD are received during the 30-day period, then an additional review or even modification of the project may be required. If no comments are received during the 30-day period, then any subsequent comments need not be responded to. This information is provided to you so that if you choose to undertake the project prior to the close of the 30-day period, you do so with the knowledge that additional actions may be required based on the results of any court challenges that are filed during that period.

Please contact Terri Dickerson at (949) 363-7538 if you have any questions regarding the Streambed Alteration Agreement.

Sincerely,

C.F. Raysbrook

C.F. Raysbrook
Regional Manager

Enclosure

cc: Terri Dickerson

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CALIFORNIA DEPARTMENT OF FISH AND GAME
4949 Viewridge Avenue
San Diego, California 92123

COASTAL COMMISSION

Notification No. 5-378-99
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AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and MT No. 1, LLC; 16592 Hale Avenue; Irvine, CA 92606; (858) 456-0077; (949) 837-0404; (949) 855-3606, State of California, hereinafter called the Operator, is as follows:

WHEREAS, pursuant to Section 1603 of California Fish and Game Code, the Operator, on the 14th day of December, 1999, notified the Department that they intend to divert or obstruct the natural flow of, or change the bed, channel, or bank of, or use material from the streambed(s) of, the following water(s): several unnamed drainages within the Department's jurisdiction, tributary to the Pacific Ocean, Orange County, California.

WHEREAS, the Department (represented by Terri Dickerson through site visits on April 5 and 13, and August 23, 2000) has determined that such operations may substantially adversely affect those existing fish and wildlife resources within several unnamed drainages, including 5 unnamed drainages identified as A-E in the submitted documents, and their tributaries, tributary to the Pacific Ocean, specifically identified as follows: amphibians: Pacific treefrog; birds: California gnatcatcher, snowy egret, turkey vulture, northern harrier, Cooper's hawk, red-tailed hawk, American kestrel, California quail, killdeer, mourning dove, Anna's hummingbird, black phoebe, Say's phoebe, bushtit, house wren, wrentit, yellow-rumped warbler, common yellowthroat, California towhee, song sparrow, Lincoln's sparrow, white-crowned sparrow, red-winged blackbird, western meadowlark, house finch, lesser goldfinch; mammals: raccoon, California ground squirrel, desert cottontail; Blochman's dudleya; riparian vegetation which provides habitat for those faunal species; alkali heath, cattail, arroyo willow, pickleweed, mulefat; and all other aquatic and wildlife resources.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife resources during the Operator's work. The Operator hereby agrees to accept the following measures/conditions as part of the proposed work.

If the Operator's work changes from that stated in the notification specified above, this Agreement is no longer valid and a new notification shall be submitted to the Department of Fish and Game. Failure to comply with the provisions of this Agreement and with other pertinent code sections, including but not limited to Fish and Game Code Sections 5650, 5652, 5937, and 5948, may result in prosecution.

Nothing in this Agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances. A consummated Agreement does not constitute Department of Fish and Game endorsement of the proposed operation, or assure the Department's concurrence with permits required from other agencies.

This Agreement becomes effective the date of Department's signature and terminates December 31, 2003 for project construction only. This Agreement shall remain in effect for that time necessary to satisfy the terms/conditions of this Agreement.

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1. The following provisions constitute the limit of activities agreed to and resolved by this Agreement. The signing of this Agreement does not imply that the Operator is precluded from doing other activities at the site. However, activities not specifically agreed to and resolved by this Agreement shall be subject to separate notification pursuant to Fish and Game Code Sections 1600 et seq.

2. The Operator proposes to alter the streambed to construct the Marblehead Coastal Project, a residential and commercial development on a 250.6-acre site. The site (on site and immediately adjacent and off site) has 7.36 acres of wetlands[1], and 0.89 acre of ephemeral drainages. The project proposes to impact 1.94 acres of drainages within the Department's jurisdiction with fill: 0.99 acre willow woodland/mulefat scrub on site; 0.03 acre mulefat scrub immediately adjacent and offsite; 0.03 acre freshwater marsh; and 0.89 acre ephemeral drainages. An additional 0.03 acre of preserved alkali marsh will have shading impacts. Total drainage area within the Department's jurisdiction being preserved on the site is 6.27 acres: 3.44 acre alkali marsh; 0.55 acre alkali meadow; 1.75 acre willow/mulefat scrub; 0.32 acre freshwater marsh; 0.20 acre seasonal wetland; and 0.01 seasonal wetlands. An additional 0.04 acre of alkali meadow will be preserved adjacent to El Camino Real.

The project is bounded on three sides by Interstate 5 (San Diego Freeway), Avenida Pico, and El Camino Real (Pacific Coast Highway), in the City of San Clemente.

3. The agreed work includes activities associated with No. 2 above. The project area is located in : several unnamed drainages within the Department's jurisdiction, including 5 unnamed drainages identified as A-E in the submitted documents, and their tributaries, tributary to the Pacific Ocean, in Orange County. Specific work areas and mitigation measures are described on/in the plans and documents submitted by the Operator, including "Preservation, Restoration and Management Plan for Wetlands, Sage Scrub and Other Upland Habitats", including the "Maximum Avoidance Alternative", dated July 7, 2000 and revised August 25, 2000 and shall be implemented as proposed unless directed differently by this agreement.

4. The Operator shall not impact more than 1.94 acres of drainages with fill (1.02 acre mulefat scrub/willow woodland, 0.03 acre freshwater marsh, 0.89 acre ephemeral drainages), and an additional 0.03 acre (alkali marsh) with shading. All impacts are permanent. No temporary impacts are proposed.

5. The Operator shall mitigate as described in the submitted documents and as follows:

A. Create/restore 0.17 acre of alkali marsh on site within or adjacent to existing wetland habitat locations; and

B. Create/restore 0.93 acre of native riparian habitat on site within open space habitat preserve/restoration areas. This wetland habitat is proposed primarily as freshwater marsh habitat within three detention basins, as well as two smaller locations adjacent to existing wetland habitat locations. The Operator shall ensure that the three basins are self-sustaining native habitat areas, minimizing longstanding open water, and not subject to future maintenance measures such as sediment or vegetation removal or mosquito abatement. Part of the monitoring process shall include evaluation that the basins meet these criteria, or they shall be reconfigured and/or revegetated to meet these criteria; and

---

[1] This number is 0.02 acre higher than reported in the letter from the Department to the California Coastal Commission, dated August 29, 2000, due to the mapping and line digitizing process after the field measurements were taken

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C. Create 2.37 acres of mature willow riparian and mulefat scrub habitat off site at the Gobernadora Ecological Restoration Area (GERA). The Operator shall submit a supplement to the mitigation plan for Department review and approval within 30 days of signing this Agreement. The supplemental plan shall: identify the specific off site habitat creation/restoration areas, and quantify those areas which have been graded for proper hydrology, those installed with native vegetation, those with volunteer native vegetation, and those areas which will be planted; include a long-term maintenance provision; and include a plant palette. Revegetation shall use only native species.

6. All mitigation at GERA shall be installed prior to any project drainage/wetland impacts and no later than December 31, 2001. It is understood that part of this area (approximately 1/3 of the site) has all ready been planted or is in the process of colonizing with native vegetation, and the remaining acreage shall be installed prior to on site impacts to offset the lower mitigation ratio. The Operator shall document within 30 days of signing this Agreement that this area is currently protected under conservation easement.

7. Disturbance or removal of vegetation in jurisdictional areas shall not exceed the limits approved by the Department under this Agreement. The disturbed portions of any stream channel shall be restored. Restoration shall include the revegetation of stripped or exposed areas with vegetation native to the area.

8. The Department recommends the use of native plants to the greatest extent feasible in the landscape areas adjacent and/or near the mitigation/open space areas. The Operator shall not plant, seed or otherwise introduce invasive exotic plant species to the landscaped areas adjacent and/or near the mitigation/open space areas. Exotic plant species not to be used include those species listed on Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of August 1996." This list includes such species as: pepper trees, pampas grass, fountain grass, ice plant, myoporum, tree of heaven, black locust, capeweed, tree of heaven, periwinkle, bush lupine, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. A copy of the complete list can be obtained by contacting the California Exotic Pest Plant Council at 32912 Calle del Tesoro San Juan Capistrano, CA 92675, or by accessing their web site at http://www.caleppc.org. The Operator shall submit a copy of the draft landscape/planting plan to the Department's representative for review at least 30 days prior to the acquisition and/or use of any plant materials (seeds or container plants) adjacent to the mitigation/open space site. A site visit by the DFG representative to review the presence (or absence) of exotic pest plants is required prior to the Department's acceptance of the completed project.

9. The Department recommends that the project attempt to attain a minimum 50-foot vegetated buffer of native and/or non-invasive plants (including the revegetated loffel walls which will be vegetated with native plants) around any wetland habitat areas which do not currently meet this minimum buffer amount, in particular the preserved wetland habitats east of the proposed location of Avenida Vista Hermosa and at the most downstream portion of tributary E, lower canyon.

10. The Operator shall have a biological monitor on site daily during any vegetation removal activities, and twice weekly during the balance of project activities, to ensure compliance with all conditions of this Agreement, and shall have the biological monitor submit monthly reports to the Department documenting compliance with the Agreement, and reporting any violations of this Agreement within one day of their occurrence.

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11. The Operator shall submit the pre- and post- construction surveys, photos, maps and reports of compliance to the Department. Pre-construction reports shall be submitted prior to project initiation. Post-construction reports shall be submitted within thirty (30) days from the date of project impacts are completed, and shall include a summary of project compliance (including noncompliance and corrective actions taken to achieve compliance). The Operator shall mitigate at a minimum 5:1 ratio for impacts beyond those authorized in this Agreement. In the event that additional mitigation is required, the type of mitigation shall be determined by the Department and may include creation, restoration, enhancement and/or preservation.

12. The Operator shall not remove vegetation within the stream from March 1 to August 31 to avoid impacts to nesting birds. However, the Operator may remove vegetation by hand during this time if a qualified biologist conducts a survey for nesting birds within three days prior to the vegetation removal, and ensures no nesting birds shall be impacted by the project. These surveys shall include the areas within 200 feet of the edge of the proposed impact area(s). If active nests are found, a minimum 50-foot (200 feet for raptors) fence barrier shall be erected around the nest site. No habitat removal or any other work shall occur within the fenced nest zone even if the nest continues active beyond August 31, until the young have fledged, are no longer being fed by the parents , have left the nest, and will no longer be impacted by the project. Vegetation clearing MAY occur other than as described above IF Department-approved avoidance measures are in place to ensure no impacts to nesting birds may occur AND the Operator receives confirmation from the Department that the vegetation removal at a specific site is allowed on a specified date. The Operator shall submit the mapped survey results to the Department for review and approval prior to vegetation removal to ensure full avoidance measures are in place.

13. The Operator is also impacting 15.73 acres of native plant communities: 2.82 acres of coastal bluff scrub, 0.69 acre of southern cactus scrub, 1.48 acres of sage brush, 2.78 acres of coyote bush scrub, 7.66 acres of saltbush scrub, and 0.30 acre of needlegrass grassland. Part of the mitigation, consistent with the Orange County Interim habitat loss (4d) for these impacts, is the purchase of 50 acres, containing 30 acres of existing sage scrub and 12 to 15 California gnatcatcher sites, and payment of $100,000 towards its long-term management.

14. A security (e.g. an irrevocable letter of credit, pledge savings account or CD) for the amount of complete restoration shall be submitted to the Department prior to initiation of construction activities. This amount shall be based on a cost estimate which shall be submitted to the Department for approval within 30 days of signing this Agreement. The security shall be approved by the Department's legal advisors prior to its execution, and shall allow the Department at its sole discretion to recover funds immediately if the Department determines there has been a default. The legal advisors can be contacted at (916) 654-3821.

It is understood that the GERA Conservation Easement between the Department and DMD San Juan Investment North,. LLC, establishes the Grantor's rights (Term 5E) to sell mitigation (creation/restoration) acreage for streambed and wetland-impacting projects, subject to approval by the Department and the U.S. Army Corps of Engineers.

15. Installation of bridges, culverts, or other structures shall be such that water flow is not impaired. Bottoms of temporary culverts shall be placed at stream channel grade; bottoms of permanent culverts shall be placed at or below stream channel grade.

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16. No equipment shall be operated in ponded or flowing areas. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around the work area by a barrier, temporary culvert, new channel, or other means approved by the Department. Construction of the barrier and/or the new channel shall normally begin in the downstream area and continue in an upstream direction, and the flow shall be diverted only when construction of the diversion is completed. Channel bank or barrier construction shall be adequate to prevent seepage into or from the work area. Channel banks or barriers shall not be made of earth or other substances subject to erosion unless first enclosed by sheet piling, rock rip-rap, or other protective material. The enclosure and the supportive material shall be removed when the work is completed and removal shall normally proceed from downstream in an upstream direction.

17. Preparation shall be made so that runoff from steep, erodible surfaces will be diverted into stable areas with little erosion potential. Frequent water checks shall be placed on dirt roads, cat tracks, or other work trails to control erosion.

18. Water containing mud, silt or other pollutants from aggregate washing or other activities shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

19. Structures and associated materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.

20. The perimeter of the work site shall be adequately flagged and fenced to prevent damage to adjacent riparian habitat.

21. Staging/storage areas for equipment and materials shall be located outside of the stream.

22. The Operator shall comply with all litter and pollution laws. All contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the operator to ensure compliance.

23. If a stream's low flow channel, bed or banks have been altered, these shall be returned as nearly as possible to their original configuration and width, without creating future erosion problems.

24. All planting shall have a minimum of 80% survival the first year and 100% survival thereafter and/or shall attain 75% cover after 3 years and 90% cover after 5 years for the life of the project. Prior to the mitigation site(s) being determined successful, they shall be entirely without supplemental irrigation for a minimum of 2 years, no single species shall constitute more than 50% of the vegetative cover, no woody invasive species shall be present, and herbaceous invasive species shall not exceed 5% cover. If the survival, cover and other requirements described in this Agreement and in the submitted documents have not been met, the Operator is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting.

25. All planting shall be done between October 1 and April 30 to take advantage of the winter rainy season, or shall be irrigated to ensure survival.

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STREAMBED ALTERATION CONDITIONS FOR NOTIFICATION NUMBER: 5-378-99

26. An annual report shall be submitted to the Department by Jan. 1 of each year for 5 years after planting. This report shall include the survival, % cover, % invasive species, height of both tree and shrub species, and shall discuss species diversity, and specific recommendations. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included.

27. Access to the work site shall be via existing roads and access ramps.

28. Spoil sites shall not be located within a stream/lake, where spoil shall be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation.

29. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. These materials, placed within or where they may enter a stream/lake, by Operator or any party working under contract, or with the permission of the Operator, shall be removed immediately.

30. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

31. No equipment maintenance shall be done within or near any stream channel where petroleum products or other pollutants from the equipment may enter these areas under any flow.

32. The Operator shall provide a copy of this Agreement to all contractors, subcontractors, and the Operator's project supervisors. Copies of the Agreement shall be readily available at work sites at all times during periods of active work and must be presented to any Department personnel, or personnel from another agency upon demand.

33. The Department reserves the right to enter the project site at any time to ensure compliance with terms/conditions of this Agreement.

34. The Operator shall notify the Department, in writing, at least five (5) days prior to initiation of construction (project) activities and at least five (5) days prior to completion of construction (project) activities. Notification shall be sent to the Department at 4949 Viewridge Avenue San Diego, CA 92123, Attn: Streambed Alteration Agreement # 5-378-99.

37. It is understood the Department has entered into this Streambed Alteration Agreement for purposes of establishing protective features for fish and wildlife. The decision to proceed with the project is the sole responsibility of the Operator, and is not required by this agreement. It is further agreed all liability and/or incurred cost related to or arising out of the Operator's project and the fish and wildlife protective conditions of this agreement, remain the sole responsibility of the Operator. The Operator agrees to hold harmless the State of California and the Department of Fish and Game against any related claim made by any party or parties for personal injury or any other damages.

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38. The Department reserves the right to suspend or cancel this Agreement for other reasons, including but not limited to the following:
a. The Department determines that the information provided by the Operator in support of the Notification/Agreement is incomplete or inaccurate;
b. The Department obtains new information that was not known to it in preparing the terms and conditions of the Agreement;
c. The project or project activities as described in the Notification/Agreement have changed;
d. The conditions affecting fish and wildlife resources change or the Department determines that project activities will result in a substantial adverse effect on the environment.

39. Before any suspension or cancellation of the Agreement, the Department will notify the Operator in writing of the circumstances which the Department believes warrant suspension or cancellation. The Operator will have seven (7) working days from the date of receipt of this notification to respond in writing to the circumstances described in the Department's notification. During the seven (7) day response period, the Operator shall immediately cease any project activities which the Department specified in its notification. The Operator shall not continue the specified activities until that time when the Department notifies the Operator in writing that adequate methods and/or measures have been identified and agreed upon to mitigate or eliminate the significant adverse effect.

CONCURRENCE

(Operator's name)

(signature) (date)

Jim D. Johnson, CEO
MT No. 1, LLC

California Dept. of Fish and Game

(signature) 12/20/2000 (date)

C.F. Raysbrook, Regional Manager

Streambed Alteration Agreement Prepared By: Terri Dickerson, ES III

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In Reply Refer To:
FWS-OR-723.4

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South Coast Region
AUG 3 0 2002

SEP 0 6 2002

CALIFORNIA
COASTAL COMMISSION

James Hare
City Planner
City of San Clemente
910 Calle Negocio, Suite 100
San Clemente, California 92672

Re: Request for Determination of an Amendment to the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, City of San Clemente, California

Dear Mr. Hare:

We have reviewed your July 24, 2002, letter requesting our determination of whether an amendment to our conditional concurrence, dated February 22, 2002, with the IHLMP for the Marblehead Coastal Development Project is necessary to address changes in the project description. As explained in your letter, the Habitat Management Plan (HMP) for the project has been modified to address requirements of the Orange County Fire Authority (OCFA) as follows:

1. That 2.43 acres of coastal sage scrub to be avoided and 22.1 acres of native vegetation to be restored (24.53 acres total) within the 66.21-acre biological conservation easement, will be subject to the OCFA monitoring requirements that will prohibit natural recruitment of three coastal sage scrub species [i.e., California sagebrush (*Artemesia californica*, "sagebrush"), California buckwheat (*Eriogonum fasciculatum*, "buckwheat") and black sage (*Saliva mellifera*, "black sage")]. The OCFA will require that any naturally recruited individuals of these three species detected during monitoring be removed from the monitoring area (Exhibit 1).

2. That the planting palette for the 22.1 acres of native vegetation to be restored within the OCFA monitoring area exclude sagebrush, buckwheat and black sage (Exhibit 1).

3. That the biological conservation easement over the 66.21-acre coastal sage scrub avoidance/restoration area will contain provisions enabling the removal of sagebrush, buckwheat and/or black sage that naturally recruits within the 24.53-acre monitoring area as required by the OCFA.

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According to the information submitted with your letter, the OCFA will not require the removal and/or thinning of any extant sagebrush, buckwheat and black sage from the 2.43 acres of coastal sage scrub within the monitoring area nor the monitoring of and/or plant removal/thinning in the remaining 41.68 acres of coastal sage scrub (7.76 acres avoided and 33.92 acres restored) within the 66.21-acre biological conservation easement (Exhibit 1).

Based on recent surveys, the Marblehead Coastal site supports two pairs of coastal California gnatcatcher (*Polioptila californica californica*, "gnatcatcher"), one each in the north and south canyons on site (Exhibit 2). As stated in our February 22, 2002, conditional concurrence, we anticipate that the proposed project will result in the loss of the gnatcatcher pair in the south canyon. Approximately 1.5 acres of the 2.43 acres of extant coastal sage scrub within the proposed OCFA monitoring area are within the north canyon and are potentially used by the gnatcatcher pair in this canyon for breeding, foraging and sheltering. However, because the OCFA will not require the removal and/or thinning of any extant sagebrush, buckwheat and black sage from the 2.43 acres of coastal sage scrub within the monitoring area, we do not anticipate that the proposed project modifications will result in the loss of the gnatcatcher pair in the north canyon. Therefore, we anticipate that the proposed project will still only result in the loss of the gnatcatcher pair in the south canyon.

Although the proposed modifications to the HMP will reduce the relative plant diversity and likely the function of the 24.53-acre fire monitoring area for breeding by the gnatcatcher, this area should still function as foraging, sheltering and dispersal habitat for the gnatcatcher. The 24.53-acre fire monitoring area will also: 1) serve as a buffer from the various edge effects of the proposed development; 2) provide a reduced native plant species complex that will support many associated animal species; and 3) provide an opportunity to locate public use trails that would not be appropriate in the 41.68 acres of avoided and restored coastal sage scrub outside the OCFA monitoring area. Therefore, the Carlsbad Fish and Wildlife Office (CFWO) and California Department of Fish and Game (Department), hereinafter referred to as the "Wildlife Agencies," have determined that the 24.53-acre fire monitoring area will possess natural habitat functions that warrant its inclusion into the biological conservation easement that is established for the Marblehead Coastal Development Project.

The Wildlife Agencies expect that the 41.68 acres of avoided and/or restored coastal sage scrub outside the fire monitoring area will provide the full suite of habitat functions for the gnatcatcher and, along with the reduced habitat functions of the 24.53-acre fire monitoring area, will adequately mitigate for impacts to 7.21 acres of coastal sage scrub by the project. Therefore, we concur with the proposed modifications to the HMP and hereby amend our conditional concurrence dated February 22, 2002, to reflect these modifications, subject to the following conditions:

1. That the permittee, and/or an agency, non-profit organization, or other entity approved by the Wildlife Agencies to hold and perform perpetual management of the 66.21-acre biological conservation easement, will survey and clearly mark the limits of the 24.53-acre fire monitoring area, and the existing 2.43 acres of coastal sage scrub in this area that will be allowed to remain, in perpetuity. Any coastal

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sage scrub impacts from plant removal (i.e., thinning) required by the OCFA that occur outside of the 24.53-acre fire monitoring area, or to the 2.43 acres of coastal sage scrub within this area, will be mitigated at a minimum 5:1 ratio.

2. That the permittee, and/or an agency, non-profit organization, or other entity approved by the Wildlife Agencies to hold and perform perpetual management of the 66.21-acre biological conservation easement, will submit monitoring results for the 24.53-acre fire monitoring area to the Wildlife Agencies by October 1 of each year that monitoring required by the OCFA is performed.

3. That the permittee, and/or an agency, non-profit organization, or other entity approved by the Wildlife Agencies to hold and perform perpetual management of the 66.21-acre biological conservation easement, will perform any thinning of the 24.53-acre fire monitoring area required by the OCFA outside the gnatcatcher breeding season (considered to be from February 15 through August 31) and will staff a monitoring biologist knowledgeable of coastal sage scrub and gnatcatcher biology and ecology to oversee all thinning.

4. That the permittee, and/or an agency, non-profit organization, or other entity approved by the Wildlife Agencies to hold and perform perpetual management of the 66.21-acre biological conservation easement, will submit a thinning plan for the 24.53-acre fire monitoring area prepared by a biologist knowledgeable of coastal sage scrub to the Wildlife Agencies at least 30 days prior to initiating plant removal as required by the OCFA. The plan will include the name, address, telephone number, and work schedule of the monitoring biologist, a map of all areas to be thinned, a table listing the number of each plant species to be removed, and photographs showing all areas to be thinned.

5. That the permittee, and/or an agency, non-profit organization, or other entity approved by the Wildlife Agencies to hold and perform perpetual management of the 66.21-acre biological conservation easement, will submit a report prepared by the monitoring biologist to the Wildlife Agencies within 30 days of completing any thinning of the 24.53-acre fire monitoring area required by the OCFA. The report will include a map of all areas thinned, a table listing the number of each plant species removed, photographs showing the pre- and post-condition of all areas thinned, and a certification that thinning did not extend beyond the limits of the 24.53-acre fire monitoring area and/or into the 2.43 acres of coastal sage scrub within the fire monitoring area.

6. That the permittee will restore and maintain the 24.53-acre fire monitoring area to emulate native coastal sage scrub, with the exception that sagebrush, buckwheat, and black sage may be removed from this area as per OCFA requirements. A plant palette and success criteria for the native vegetation restoration areas within the 24.53-acre fire monitoring area will be included in the mitigation plan required by Condition 1 of Wildlife Agencies' February 22, 2002, IHLMP

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concurrence.

7. That the permittee will include provisions for the OCFA required monitoring and thinning of sagebrush, buckwheat and black sage from the 24.53-acre fire monitoring area in the biological conservation easement required by Condition 8 of Wildlife Agencies' February 22, 2002, IHLMP concurrence.

8. That the permittee will include the 24.53-acre fire monitoring area in the perpetual management, maintenance and monitoring plan for the biological conservation easement required by Condition 9 of Wildlife Agencies' February 22, 2002, IHLMP concurrence.

9. That the permittee will include all costs related to the OCFA required monitoring and thinning of the 24.53-acre fire monitoring area in the Property Analysis Record (Center for Natural Lands Management © 1998) for the non-wasting endowment required by Condition 9 of Wildlife Agencies' February 22, 2002, IHLMP concurrence.

All other conditions of our February 22, 2002, IHLMP concurrence remain in full force and effect.

We appreciate the City of San Clemente's ongoing commitment to the State of California's Coastal Sage Scrub Natural Community Conservation Planning program. If you have questions regarding our comments, please contact Department Biologist, Warren Wong, at (858) 467-4249 or CFWO Biologist David Zoutendyk at (760) 431-9440.

Sincerely,

For Karen A. Evans
Assistant Field Supervisor
U.S. Fish and Wildlife Service

William E. Tippets
Habitat Conservation Supervisor
California Department of Fish and Game

Enclosures (2)

cc: Rod Meade, R. J. Meade Consulting
Tim Neely, County of Orange
Steven John, USEPA, c/o U.S. Army Corps of Engineers, Los Angeles
Fari Tabatabai, U.S. Army Corps of Engineers, Los Angeles
Karl Schwing, California Coastal Commission, Long Beach

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FEB 27 2002

CALIFORNIA
COASTAL COMMISSION
FEB 22 2002

In Reply Refer To:
FWS-OR-723.3

James Hare
City Planner
City of San Clemente
910 Calle Negocio, Suite 100
San Clemente, California 92672

Re: Conditional Concurrence with the Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP) for the Marblehead Coastal Development Project, City of San Clemente, California

Dear Mr. Hare:

We have reviewed your January 24, 2002, letter requesting our concurrence that the IHLMP for the referenced project complies with the State of California's Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Process Guidelines and the special rule promulgated pursuant to section 4(d) of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. *et seq.*), for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, "gnatcatcher"). Under the special 4(d) rule, the loss of coastal sage scrub (CSS) and accompanying take of gnatcatchers can be authorized if the take is in accordance with the NCCP Process Guidelines. These guidelines require an approved IHLMP prior to project clearing of CSS.

The Carlsbad Fish and Wildlife Office (CFWO) and California Department of Fish and Game (Department), hereinafter referred to as the "Wildlife Agencies," have reviewed the: 1) *Biological Resources Information to Support An Amended Special 4(d) Rule Interim Habitat Loss Mitigation Plan for the Marblehead Coastal Development* (IHLMP) (January 24, 2002); 2) *Marblehead Coastal Project Habitat Management Plan* (HMP) (November 28, 2001); and 3) *Submittal Requirements of Coastal California Gnatcatcher Surveys on the Marblehead Project Site, City of San Clemente, Orange County, California* (Glenn Lukos Associates, August 17, 2001) that were submitted to us in support of the IHLMP for the project. We have also been provided additional information on the project during conversations with Rod Meade on behalf of the project proponent, MT No. 1, LLC.

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The 247.9-acre Marblehead Coastal Development site is located within the Southern Subregion of the Orange County NCCP planning area, in the City of San Clemente, and is bordered by Interstate 5 and development to the east, Pico Avenue and development to the south, El Camino Real and the Pacific Ocean to the west, and development to the north (Exhibit 1 and 2 of the IHLMP).

The proposed development would include 351 single-family homes on 79.6 acres; 675,243 square feet (sf) of commercial development on 51.5 acres; 60,000 sf of coastal recreation commercial on 1 acre; and a bluff top park on 11.5 acres (Exhibit 3 of the IHLMP). The site also contains a 2.1-acre reserve previously established for Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*).

Vegetation types on-site include CSS (18.4 acres), alkali wetland (4 acres), mulefat scrub (7.3 acres), annual grassland (42.3 acres), native grassland (0.31 acre), ornamental landscaping (15.5 acres) and ruderal (16.1 acres) (Exhibit 4 of the IHLMP). Surveys of the project site in 1996/1997 and 1999/2000 documented two and up to three pairs of gnatcatchers, respectively. Additional surveys conducted in 2001 found two pairs of gnatcatchers on-site, each with five fledglings.

Based on these surveys, we consider the Marblehead Coastal property to be currently occupied by two pairs of gnatcatchers. These two pairs have consistently occupied the same CSS patches on-site (Exhibit 4 of the IHLMP and Exhibit 4 of the HMP). Although occupied by gnatcatchers, the habitat within the Marblehead Coastal property is relatively small and isolated and provides little, if any, connectivity for gnatcatcher immigration or emigration with the rest of the Southern Subregion of Orange County.

In our letter dated August 17, 2000, we conditionally approved a previous IHLMP for the project that proposed impacts to 15.4 acres of CSS, including the majority of the areas occupied by gnatcatchers on-site. Since that time, the project footprint has been reduced so that only 7.21 acres of CSS will be impacted, thereby conserving more of the gnatcatcher occupied areas on-site. However, the proposed project will still impact approximately 30-40 percent of the CSS documented to be used by one pair of gnatcatchers during their breeding season. Given the already limited amount and isolated nature of the CSS on the Marblehead Coastal property, destruction of a significant portion of this pair's primary breeding and foraging habitat is anticipated to result in loss of the pair. Significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including, but not limited to, breeding, feeding, and sheltering, is defined by the Service as harm under the Act.

The following minimization/mitigation measures are proposed in the IHLMP documents, and as clarified to us in discussions with Rod Meade:

1. The permittee will avoid 10.2 acres of CSS (excluding 1 acre of CSS already preserved in the existing 2.1-acre dudleya reserve) and restore 56 acres of CSS, for a total of 66.2 acres of avoided/restored CSS on-site;

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2. The permittee will protect the 66.2 acres of avoided/restored CSS through recordation of a biological conservation easement in favor of an agency, non-profit organization, or other entity approved by the Wildlife Agencies;

3. The permittee will establish a non-wasting endowment to fund the perpetual maintenance and management of the 66.2 acres of avoided/restored CSS.

Our determination regarding project compliance with the NCCP Process Guidelines and the special 4(d) rule for gnatcatchers is based on the enclosed evaluation of the interim loss criteria contained within the guidelines. Based on this evaluation, we concur with your determination that the proposed IHLMP complies with the NCCP Process Guidelines and approve the loss of an additional 7.21 acres of CSS and take of 1 pair of gnatcatchers under the special 4(d) rule. In addition to the minimization/mitigation measures given above, the following measures are conditions of this approval:

1. The permittee will submit a final CSS mitigation plan to the Wildlife Agencies for approval at least 60 days prior to initiating CSS impacts authorized by this IHLMP. The plan will be based on the *Marblehead Coastal Project Habitat Management Plan* (HMP) (November 28, 2001). In addition to the measures proposed in the HMP, the final plans will include the following information and conditions:

   a. All final specifications and topographic-based layout grading, planting, and irrigation plans (with 2-foot contours). All CSS restoration sites will be prepared for planting by decompacting the top soil in a way that mimics natural CSS top soil to the maximum extent practicable. Topsoil and plant materials salvaged from the CSS areas to be impacted will be transplanted to, and/or used as a seed/cutting source for, the CSS restoration areas to the maximum extent practicable. Planting and irrigation will not be installed until the Wildlife Agencies have approved of CSS restoration site grading. All planting will be installed in a way that mimics natural plant distribution, and not in rows;

   b. Planting palettes (plant species, size and number/acre) and seed mix (plant species and pounds/acre). Unless otherwise approved by the Wildlife Agencies, only locally native species (no cultivars) obtained within southern Orange County as available from as close to the project area as possible will be used. The source and proof of local nativeness of all plant material and seed will be provided in the plan;

   c. Submittal of as-built drawings of the CSS restoration grading, planting and irrigation to the Agencies within 60 days of completion;

   d. Annual mitigation maintenance and monitoring reports will be submitted to the Agencies after the maintenance and monitoring period and no later than December 1 of each year.

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2. The permittee will submit a final implementation schedule to the Wildlife Agencies for approval, at least 60 days prior to initiating CSS impacts authorized by this IHLMP. The final implementation schedule will indicate when all CSS impacts, as well as restoration grading, planting and irrigation will begin and end. Installation of CSS restoration outside the development grading footprint will be completed during the 2002-2003 planting season (i.e., late fall to early spring). Installation of all other CSS restoration will be completed during the concurrent or next planting season after finishing development grading within the restoration area. Any temporal loss of CSS caused by delays in CSS restoration will be mitigated through additional CSS preservation and/or restoration at a 0.5:1 ratio for every 6 months of delay (i.e., 1:1 for 12 months delay, 1.5:1 for 18 months delay, etc.). The Wildlife Agencies may waive the requirement for additional mitigation only if a justification for any delay is provided to them in writing and they concur that the justification is legitimate.

3. The permittee will fence (with silt barriers) the limits of the construction corridor to prevent additional CSS impact and spread of silt from the construction zone into adjacent CSS and other habitats. The permittee will submit to the Wildlife Agencies for approval, at least 7 days prior to initiating CSS impacts authorized by this IHLMP, the final grading plans and photographs showing the fenced limits of impact and all CSS to be impacted or avoided. Any CSS impacts that occur outside of the approved fenced limits will be mitigated at a minimum 5:1 ratio.

4. The permittee will clear all CSS to be impacted prior to project grading within the CSS impact areas. All clearing of CSS will occur outside of the gnatcatcher breeding season (considered to be from February 15 through August 31). If necessary, clearing of CSS beyond 200 feet of the gnatcatcher estimated occupied habitat areas shown on Exhibit 4 of the IHLMP may occur during the gnatcatcher breeding season, if the contingency measures given in Condition 5 are implemented to minimize impacts to gnatcatchers.

5. The permittee will staff a monitoring biologist approved by the Agencies on-site during all CSS clearing and any other project-related work adjacent to CSS to be avoided. The purpose of the monitor is to ensure project compliance with the conditions included in the authorization of this IHLMP that relate to incidental take of gnatcatchers. The monitoring biologist will submit reports that document compliance with these conditions to the Wildlife Agencies. The biologist must be knowledgeable of gnatcatcher biology and ecology. The permittee will submit the biologist's name, address, telephone number, and work schedule on the project to the Agencies at least 7 days prior to initiating CSS impacts authorized by this IHLMP. The biologist will perform the following duties:

   a. Prior to and during the clearing of any CSS or other suitable gnatcatcher habitats outside the gnatcatcher breeding season, the biologist will locate any individual gnatcatchers on-site and direct clearing to begin in an area away from birds. In addition, the biologist will walk ahead of clearing equipment to flush birds towards areas of habitat that will be avoided. It will be the responsibility of the biologist to assure that gnatcatchers will not be directly injured or killed by the

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clearing of CSS. The biologist will report on the number and locations of gnatcatchers disturbed by clearing activities. The permittee will advise the Wildlife Agencies at least 7 calender days prior to initiating clearing of CSS or other suitable gnatcatcher habitats to allow the Agencies to coordinate with the biologist on bird flushing activities.

b. If clearing of CSS beyond 200 feet of the gnatcatcher estimated occupied habitat areas shown on Exhibit 4 of the IHLMP is necessary and approved by the Agencies during the gnatcatcher breeding season, in addition to the above, the biologist will locate and monitor gnatcatchers and/or any gnatcatcher nests within clearing areas by conducting a minimum of three surveys, on separate days, after the initiation of the nesting season to determine the presence of gnatcatchers, nest building activities, egg incubation activities, or brood rearing activities. These surveys will be conducted within the week prior to the initiation of clearing. One survey will be conducted the day immediately prior to the initiation of clearing. The Agencies will be notified prior to the initiation of surveys. If gnatcatchers are found, but no nests, the biologist will flush the gnatcatchers from the clearing area as described above. If nesting birds are found, a nest monitoring program approved by the Agencies will be initiated and clearing will be postponed within and adjacent to the foraging area used by the pair during the nesting cycle, until the nest is determined either a success or failure by the biologist. Nest success/failure will be established by regular and frequent trips to the site, on an as-needed basis, as determined by the biologist and approved by the Agencies. Further work activities within and adjacent to the foraging area will not be initiated until nestlings have fledged or the nest has been determined a failure, as approved by the Agencies. The biologist will then flush any adult and/or fledgling gnatcatchers from the clearing area as described above.

c. If project construction within 500 feet of CSS to be avoided is necessary and approved by the Wildlife Agencies during gnatcatcher breeding season, the biologist will locate and monitor gnatcatchers (including nests) within 500 feet of work. The biologist will determine whether bird activity within this area is being substantially disrupted by implementing a monitoring plan approved by the Wildlife Agencies. If the biologist determines that gnatcatcher activity is being substantially disrupted, the permittee will stop work and coordinate with the Wildlife Agencies to minimize and mitigate noise to 60 dBA adjacent to habitat occupied by gnatcatchers through the use of sound walls and/or other measures approved by the Wildlife Agencies.

d. Prior to initiating clearing and/or project construction during the gnatcatcher breeding season, the biological monitor will meet on-site with the construction manager and/or other individual(s) with oversight and management responsibility for the day-to-day activities on the construction site to discuss implementation of the relevant avoidance/ minimization/mitigation measures for gnatcatcher. The biologist will meet as needed with the construction manager (e.g., when new

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crews are employed) to discuss implementation of these measures.

e. Report any violation to the Wildlife Agencies within 24 hours of its occurrence.

f. Submit weekly reports (including photographs of impact areas) to the Wildlife Agencies during initial clearing of CSS and/or project construction within 500 feet of avoided CSS during the gnatcatcher breeding season. The weekly reports will document that authorized CSS impacts were not exceeded, work did not occur within the 500-foot setback during the gnatcatcher breeding season except as approved by the Agencies, and general compliance with all conditions. The reports will also outline the duration of gnatcatcher monitoring, the location of construction activities, the type of construction which occurred, and equipment used. These reports will specify numbers, locations, and sex of gnatcatchers (if present), observed gnatcatcher behavior (especially in relation to construction activities), and remedial measures employed to avoid, minimize, and mitigate impacts to gnatcatchers. Raw field notes should be available upon request by the Wildlife Agencies.

g. The biological monitor will also submit a final report to the Agencies within 60 days of project completion that includes: as-built construction drawings with an overlay of CSS that was impacted and avoided, photographs of CSS areas to be avoided, and other relevant summary information documenting that authorized CSS impacts were not exceeded and general compliance with all conditions of this IHLMP.

6. The permittee will install protective fencing along any interface with developed areas and/or use other measures approved by the Wildlife Agencies to deter human and pet entrance into all avoided/restored CSS areas. Plans for fencing and/or other preventative measures will be submitted to the Wildlife Agencies for approval at least 60 days prior to initiating CSS impacts authorized by this IHLMP.

7. The permittee will post a letter of credit or other financial assurance ("financial assurance") in favor of an agency, non-profit organization, or other entity approved by the Wildlife Agencies for the estimated cost of site preparation, planting, irrigation, and 5 years of maintenance and monitoring of CSS mitigation required by this IHLMP (including a 20% contingency to be added to the total costs). The purpose of this financial assurance is to guarantee the successful implementation of the CSS mitigation construction, maintenance and monitoring. A draft financial assurance with an itemized cost list will be submitted to the Wildlife Agencies for approval at least 60 days prior to initiating impacts authorized by this IHLMP. The final financial assurance for the amount approved by the Wildlife Agencies will be submitted within 20 days of receiving approval of the draft financial assurance. The financial assurance may be reduced based upon Wildlife agency verification of completion of appropriate milestones to be identified in the final restoration plan.

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8. The permittee will preserve and place a biological conservation easement, in favor of an agency, non-profit organization, or other entity approved by the Wildlife Agencies, with the Department designated as a third party beneficiary on the 66.2 acres of avoided/restored CSS committed as mitigation for this IHLMP, and submit a draft easement to the Wildlife Agencies at least 60 days prior to initiating CSS impact authorized by this IHLMP. The form and content of the easement will be approved by the Wildlife Agencies prior to its execution. The 66.2-acre biological conservation easement area will preclude establishment of fuel modification zones, public trails, drainage facilities, walls, maintenance access roads and/or easements. Further, such facilities will be cited to minimize, to the extent feasible, impacts on the CSS-restoration area (e.g., public trails and drainage facilities will, to the extent feasible, be located in or immediately adjacent to the fuel modification zone and avoid bisecting the CSS restoration area). A detailed plan of such facilities will be submitted, with the draft easement, to the Wildlife Agencies for review and approval. An executed copy of the biological conservation easement will be submitted to the Wildlife Agencies within 60 days following completion of project grading adjacent to 66.2-acre biological conservation easement area.

9. The permittee will implement a perpetual management, maintenance and monitoring plan for the 66.2-acre biological conservation easement area. The permittee will also establish a non-wasting endowment in favor of the Department for an amount approved by the Wildlife Agencies based on a Property Analysis Record (PAR) (Center for Natural Lands Management ©1998) to secure the ongoing funding for the perpetual management, maintenance and monitoring of the biological conservation easement area by an agency, non-profit organization, or other entity approved by the Wildlife Agencies. The permittee will submit a draft plan including a description of perpetual management, maintenance and monitoring actions and the PAR results for the non-wasting endowment to the Wildlife Agencies for approval at least 60 days prior to initiating CSS impacts authorized by this IHLMP. The permittee will submit to the final plan the Wildlife Agencies, and transfer the funds for the non-wasting endowment to the Department, within 60 days of receiving approval of the draft plan.

10. The permittee will develop a resident education program in coordination with the Wildlife Agencies. The permittee will submit a draft program to the Wildlife Agencies at least 60 days prior to initiating CSS impacts authroized by this IHLMP. The program will advise residents of the potential impacts to the listed species and the potential penalties for taking such species. The program will include, but not be limited to, information pamphlets and signage of the fencing between the development and the biological conservation easement. Pamphlets will be distributed to all residences. At a minimum, the program will include the following topics: occurrence of the listed and sensitive species in the area, their general ecology, sensitivity of the species to human activities, impacts from free-roaming pets (particularly domestic and feral cats), legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote continued successful occupation of the preserved areas. Th

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permittee will submit to the Wildlife Agencies the final program within 60 days of receiving approval of the draft program.

11. The permittee will ensure that development landscaping adjacent to the biological conservation easement area does not include exotic plant species that may be invasive to native habitats. The permittee will submit a draft list of species to be included in the landscaping to the Wildlife Agencies for approval at least 60 days prior to initiating CSS impacts authorized by this IHLMP. The permittee will submit to the Wildlife Agencies the final list of species to be included in the landscaping within 60 days of receiving approval of the draft list of species.

12. The permittee will ensure that development lighting adjacent to the biological conservation easement area will be directed away from and/or shielded so as not to illuminate native habitats. The permittee will submit a lighting plan to the Wildlife Agencies for approval at least 60 days prior to initiating CSS impacts authorized by this IHLMP. The permittee will submit to the Wildlife Agencies the final lighting plan within 60 days of receiving approval of the draft plan.

Although we anticipate the initial take of one pair of gnatcatchers as a result of project grading and construction, we expect that over time, as the acreage of CSS increases on-site due to successful restoration activities, the conserved areas could support two or more pairs of gnatcatchers.

We appreciate the City's ongoing commitment to the NCCP program. The Wildlife Agencies' conditional concurrence with this IHLMP for impacts to CSS and take of gnatcatchers does not constitute our concurrence with, or preclude our agencies from providing comments on, proposed wetland impacts subject to Clean Water Act section 404 permitting by the U.S. Army Corps of Engineers or Streambed Alteration Agreement under Fish and Game Code section 1600. If you have questions regarding our comments, please contact Department Biologist, Warren Wong, at (858) 467-4249 or CFWO Biologist David Zoutendyk at (760) 431-9440.

Sincerely,

Karen A. Evans
Assistant Field Supervisor
U.S. Fish and Wildlife Service

William E. Tippets
Habitat Conservation Supervisor
California Department of Fish and Game

Enclosure

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ENCLOSURE

Evaluation of the Interim Loss Criteria of the NCCP Process Guidelines for the IHLMP for the Marblehead Coastal Development Project, City of San Clemente, California

1. *The habitat loss does not cumulatively exceed 5 percent guideline.* The project will impact 7.21 acres of CSS that, when added to the current cumulative losses in the Southern Subregion of Orange County, would amount to a total of 742.5 acres (i.e., 57%) of the 1,310 acres of permissible interim habitat loss per the 5 percent guideline. Therefore, project habitat loss would not cumulatively exceed the 5 percent guideline.

2. *The habitat loss will not preclude or prevent connectivity between areas of high habitat values.* Although occupied by gnatcatchers, the habitat within the Marblehead Coastal Development area, which is west of Interstate 5 and bordered by development to the north and south, is relatively isolated from areas of high habitat values and provides little, if any, connectivity for gnatcatcher or general wildlife movement within the Southern Subregion of Orange County. Therefore, the habitat loss from this project will not preclude or prevent connectivity between areas of high habitat values.

3. *The habitat loss will not preclude or prevent the preparation of the subregional NCCP.* Because the habitat on-site is isolated and occupied by only 2 pairs of gnatcatchers, it is considered to have low-intermediate long-term conservation value. If successful, the proposed avoidance and restoration of 66.2 acres of CSS should improve the value of this habitat. Therefore, habitat loss from this project will not preclude or prevent the preparation of the subregional NCCP.

4. *The habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with the NCCP Process Guidelines.* In our letter dated August 17, 2000, we conditionally approved a previous IHLMP for the project that proposed impacts to 15.4 acres of CSS, including the majority of the areas occupied by the gnatcatchers on-site. Since that time, changes in the project have allowed the footprint to be reduced so that only 7.21 acres of CSS will be impacted, thereby conserving more of the gnatcatcher occupied areas on-site. The CSS to be impacted has been determined to be of low-intermediate conservation value because it is occupied by gnatcatcher but relatively isolated. The proposed mitigation includes on-site avoidance and restoration of 10.2 acres and 56 acres of CSS, respectively. The total 66.2 acres of avoided/restored CSS will be protected in perpetuity through recordation of a biological conservation easement in favor of an agency approved by the Wildlife Agencies. Protective fencing will be installed around the biological conservation easement area. A non-wasting endowment for an amount based on a PAR will be established to fund the perpetual maintenance and management of the 66.2 acres of avoided/restored CSS. Clearing of CSS and project construction will be limited to September 1 to February 14, unless otherwise authorized by the Wildlife Agencies, to avoid the gnatcatcher breeding season, and a biologist will be on-site to monitor the work. The development landscape adjacent to the biological

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conservation easement area will not include exotic plant species that may be invasive to native habitats and development lighting adjacent to the biological conservation easement area will be directed away from and/or shielded so as not to illuminate native habitats. With successful implementation of these minimization and mitigation measures, the Wildlife Agencies expect the CSS preservation/restoration areas to support two or more pairs of gnatcatchers.

5. *The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild.* The on-site CSS is relatively isolated and therefore considered to be of low-intermediate long-term conservation value, and the gnatcatchers on-site are not considered a core population. Therefore, loss of 7.21 acres of CSS and take of 1 pair of gnatcatchers will not appreciably reduce the likelihood of the survival and recovery of this species in the wild.

6. *The habitat loss is incidental to otherwise lawful activities.* The habitat loss for the project has been approved by the City of San Clemente as part of the adoption of the Final Environmental Impacts Report (EIR 95-01) for the Marblehead Coastal Development. The project must also obtain a Clean Water Act section 404 permit and 401 certification, Coastal Zone Management Act Coastal Development Permit, and 1600 Streambed Alteration Agreement from the U.S. Army Corps of Engineers, California Regional Water Quality Control Board, California Coastal Commission, and California Department of Fish and Game, respectively.

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California Regional Water Quality Control Board

San Diego Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb9/
9174 Sky Park Court, Suite 100, San Diego, California 92123
Phone (858) 467-2952 • FAX (858) 571-6972

Gray Davis
Governor

RECEIVED
South Coast Region
MAR 1 2002
CALIFORNIA COASTAL COMMISSION

RECEIVED
FEB 22 2002
JIM JOHNSON

February 19, 2002

Mr. Jim Johnson
MT No. 1, LLC
16592 Hale Ave.
Irvine, CA 92606

In reply refer to:
401:99C-164:SLB

RE: MARBLEHEAD COASTAL DEVELOPMENT 401 WATER QUALITY CERTIFICATION AMENDMENT

Dear Mr. Johnson:

We have received your request to amend section 401 Water Quality Certification for the Marblehead Coastal Development that was previously issued on August 1, 2000 (File No. 99C-164). Changes to the originally proposed project, that necessitate an amendment, include:

- Decreased residential development by 23.65 acres;
- Decreased regional commercial development;
- Increased public park and open space dedication (from 81.58 acres to 114.42 acres);
- Infrastructure improvements (fewer private roads, reduction in number of walls, etc.);
- Increased wetland preservation (from 4.84 acres to 6.78 acres plus 0.03 acre off-site);
- Reduction in wetland impacts (from 2.54 acres to 0.52 acres plus 0.03 acre off-site; includes preservation of all wetlands within the coastal zone);
- Increased wetland creation (from 1.38 acres to 4.55 acres); and
- Reduced impacts to non-vegetated waters of the U.S. (from 0.89 acre to 0.68 acre).

The following additional conditions shall apply to the Marblehead Coastal Development project.

1. MT No. 1, LLC shall, at all times, fully comply with the engineering plans, specifications and technical reports submitted with this application for 401 Water Quality Certification and all subsequent submittals required as part of this certification.

2. MT No. 1, LLC shall implement the Marblehead Coastal Project Habitat Management Plan (November 28, 2001). Any proposed changes to the plan, shall be submitted to the Regional Board for review and approval prior to their implementation.

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3. MT No. 1, LLC shall implement the Marblehead Coastal Water Quality Plan (November 28, 2001). Any proposed changes to the plan, shall be submitted to the Regional Board for review and approval prior to their implementation.

4. MT No. 1, LLC shall divert all low flows from residential and commercial development to the San Clemente Water Reclamation Plant for treatment. All on-site first flush from residential areas, commercial areas, and streets shall be treated by catch basins or storm drain inlet filters. All first flush flows from off-site commercial and residential development shall be diverted to an underground storage system and shall be treated by the San Clemente Water Reclamation Plant. Storm water from the regional commercial (other than first flush), residential development, and off-site areas, not diverted to the reclamation plant, shall be directed to one of three extended detention basins (vegetated with freshwater wetland plants).

If you have any questions regarding this amendment, please contact Ms. Stacey Baczkowski at 858-637-5594.

Respectfully,

John Robertus
Executive Officer
San Diego Regional Water Quality Control Board

cc: Army Corp of Engineers, Los Angeles; Fari Tabatabai

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California Regional Water Quality Control Board
San Diego Region

Alan H. Hickox
Secretary for
Environmental
Protection

Internet Address: http://www.swrcb.ca.gov/~rwqcb9/
9771 Clairemont Mesa Boulevard, Suite A, San Diego, California 92124-1324
Phone (858) 467-2952 • FAX (858) 571-6972

Gray Davis
Governor

Action on Request for
Clean Water Act section 401 Water Quality Certification
for Discharge of Dredged and/or Fill Materials

PROJECT: Marblehead Coastal Development (File No. 99C-164)

APPLICANT: Mr. Jim Johnson
MT No.1, LLC
16592 Hale Ave.
Irvine, CA 92606

ACTION:

1. ■ Order for Standard Certification

2. ☐ Order for Technically-conditioned Certification

3. ☐ Order for Denial of Certification

STANDARD CONDITIONS:

The following three standard conditions apply to all certification actions, except as noted under Condition 3 for denials (Action 3).

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

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ADDITIONAL CONDITIONS:

No additional conditions are required for the proposed project.

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

Stacey Baczkowski
California Regional Water Quality Control Board, San Diego Region
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124
858-637-5594

WATER QUALITY CERTIFICATION:

I hereby certify that the proposed discharge from the Marblehead Coastal Development will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. Although we anticipate no further regulatory involvement, should new information come to our attention that indicates a water quality problem, we may issue waste discharge requirements at that time.

John H. Robertus
Executive Officer
Regional Water Quality Control Board

8-1-[illegible]
Date

Attachment

cc: Army Corps of Engineers, Fari Tabatabai
State Water Resources Control Board
Robert Bein, William Frost & Associates, Michael Burke

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ORANGE COUNTY FIRE AUTHORITY
Fire Prevention Division
PO Box 86, Orange, CA 92856-9086 • 180 South Water St., Orange, CA 92866-2123

Planning and Development Services • www.ocfa.org • (714) 744-0499 / Fax: (714) 289-7811

RECEIVED
South Coast Region
DEC 04 2002
CALIFORNIA

December 2, 2002

Mr. Karl Schwing
California Coastal Commission
200 Oceangate, Suite 1000
Long Beach, CA 90802

RE: Approval of the Conceptual Fuel Management Plan for Marblehead Coastal

Dear Mr. Schwing,

We have reviewed the revised Conceptual Fuel Management Plan (dated November 27, 2002) for the Marblehead Coastal project. The revised Conceptual Fuel Management Plan is necessary to provide an acceptable level of risk from vegetation fires within the adjoining habitat management area since the project does not meet current OCFA Guidelines for Fuel Modification Plans and Maintenance. While this site is an infill project and is not within a designated Very High Fire Hazard Severity Zone, staff at OCFA is concerned with the type of vegetation that will remain or be planted near proposed residential and commercial structures. The revised Conceptual Fuel Management Plan notes that all buildings and residences will be protected with fire sprinklers systems as required by the City of San Clemente. Further, the developer has also agreed to construct designated structures, as identified on the November 26, 2002 Fuel Treatment Location Map, with features found in the City's Very High Fire Hazard Severity Zone Ordinance. The features include the following:

- 1-hour exterior walls;
- restricted attic and foundation vents;
- restrictions on construction between residences and vegetation areas;
- minimum 10-foot setback between residential structures;
- cornices, eave overhangs, soffits, exterior balconies and other similar architectural features shall consist of non-combustible construction materials or enclosed in one-hour fire resistant materials or heavy timber construction;
- no ventilation openings nor any other openings shall be permitted in eave overhangs, soffits, between rafters any other overhanging areas within the exposed side(s) of the structure;
- Class A roofs;
- Skylights shall have a non-combustible frame glazed with dual glazing of heat strengthened or fully tempered glass or shall be ¾-hour fire resistive assembly.

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Staff has met with representatives of the project on several occasions, providing comments and directions for the development of this Conceptual Fuel Management Plan. Recently, staff met the developer's representatives on November 19, 2002 and a modified plan was subsequently submitted on to staff on November 27, 2002. This plan includes exhibits pertaining to the habitat area, a revised fuel treatment location map, and additional information regarding models for potential fire scenarios. Overall, staff is comfortable with this recent edition of the Conceptual Fuel Management Plan for the Marblehead Development.

Staff believes that the November 27, 2002 Conceptual Fuel Management Plan achieves a balance for protection of the habitat areas while maintaining satisfactory levels of fire risk. Therefore, staff recommends approval of this conceptual fuel management plan. It is our understanding that, following approval of the project by the California Coastal Commission, the City of San Clemente will undertake a subsequent, detailed review of the project. Concurrently, OCFA will review the project for compliance with applicable requirements, including the approval of a precise fuel modification plan based on the November 27, 2002 Conceptual Fuel Management Plan.

Sincerely,

Kevin Bass

Kevin Bass
Assistant Fire Marshal

C: Mike Burke, RBF Consulting
Mike Rogers, Firewise 2000, Inc.
Jim Holloway, City of San Clemente
Laura Blaul, OCFA
Bret Anderson, OCFA
Kevin Bass, OCFA

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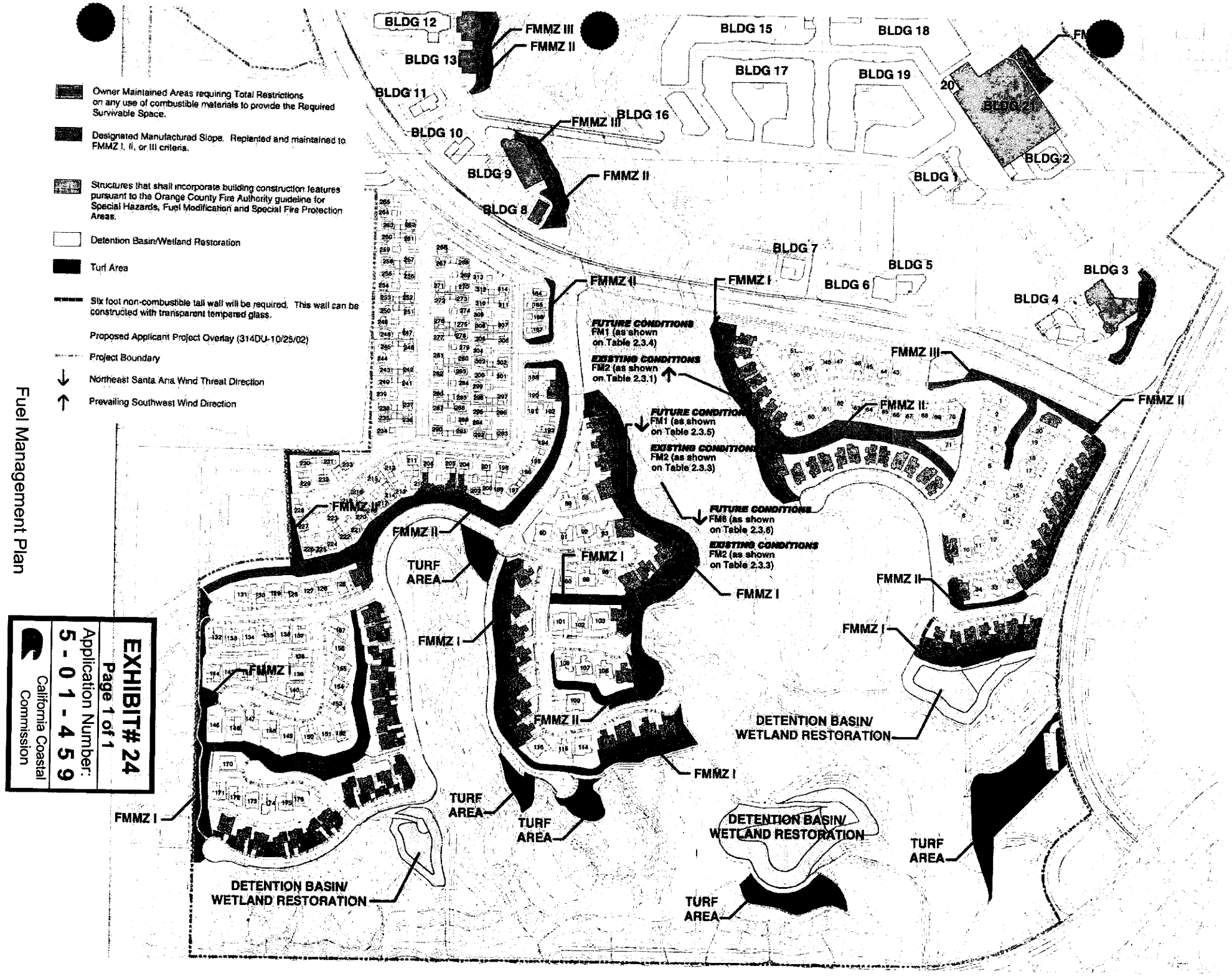

Fuel Management Plan

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LEGEND

- Class I, II or III Bike Trail
- Existing Bike Lane (On-Road)
- Multi-Purpose Recreation Trail and Trail Linkages
- Vista Points
- Beach Access Route
- Beach Access for North Beach
- Bus / Transit
- Existing Metrolink Station at North Beach

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1 ACRE
11/05/02
0' 200' 400'

PUBLIC ACCESS PLAN

Conceptual Public Amenities Plan

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

MEMORANDUM

FROM: John Dixon, Ph.D.
Ecologist / Wetland Coordinator

TO: Karl Schwing

SUBJECT: ESHA Determination for the Marblehead Property

DATE: December 18, 2002

Documents Reviewed:

Bomkamp, T. (Glenn Lukos Assoc.) Results of opportunistic surveys conducted for the coastal California gnatcatcher on Marblehead Coastal, City of San Clemente, Orange County, California. Letter report to R. Meade (R.J. Meade Consulting) dated August 3, 2000.

Bomkamp, T. (Glenn Lukos Assoc.) Submittal requirements of coastal California gnatcatcher surveys on the Marblehead Project site, City of San Clemente, Orange County, California. Letter report to C. Moen (U.S. Fish & Wildlife Service) dated August 17, 2001.

Glenn Lukos Assoc. Marblehead Coastal revised vegetation mapping, habitat descriptions and revised ESHA boundaries. Report to MT No. 1. LLC dated October 10, 2002.

Glenn Lukos Assoc. Revised map of vegetation communities dated December 12, 2002

Levine, D. (Natural Resource Consultants) Methods, results, and conclusions of focused gnatcatcher surveys conducted on the 250-acre Marblehead Coastal site located in the City of San Clemente, Orange County, California. Letter report to K. Kreitzer (David Evans & Assoc.) dated November 24 1997.

LSA Assoc. Preliminary report: California gnatcatcher status, Marblehead Coastal site, San Clemente. Report on plain paper with no signature or addressee "Updated June 12, 1991." [I am not in possession of an earlier report with the same title.]

LSA Assoc. Status report: Marblehead Coastal bird surveys. Report to The Lusk Company dated May 16, 1991.

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Natural Resource Consultants. Biological resources assessment of the 250-acre Marblehead Coastal site located in the City of San Clemente, County of Orange, California. Report to David Evans & Assoc. dated "September 26, 1996 Updated December 4, 1997."

Untitled, unattributed map of 1991, 1996, 1997, and 1999-2000 gnatcatcher areas, provided by RBG Consulting in September 2000.

Untitled maps of NRC's estimate of the 1997 gnatcatcher use area including a portion of the 1996 use area, provided by RBG Consulting in fall 2002. [I have never received the original report with map of NRC's 1996 gnatcatcher survey.]

The Environmentally Sensitive Habitat Areas (ESHA) at the Marblehead site are defined by the presence of wetlands, rare vegetation associations and plant species, and by the presence and habitat requirements of the California gnatcatcher, which is classified as "Threatened" under the federal Endangered Species Act. Similar criteria were also used by the applicant's consultant and by Dr. Jon Allen (CCC Ecologist) to develop earlier maps of ESHA. The purpose of this memo is to explain the underlying scientific rationale for the ESHA map and to identify and explain differences between the current map produced by CCC staff and the earlier efforts by staff and the applicant.

Wetlands

Wetlands are associated with canyon bottoms in many of the incised drainages on the site. Both freshwater marsh and seasonal wetlands are present. The latter includes alkali marsh and alkali meadows. The delineations were done following the definitions of wetlands in the Coastal Act and the California Code of Regulations, and were verified by the California Department of Fish and Game and by me. The alkali wetlands are particularly significant because they are a unique form of wetland that is becoming increasingly rare in southern California. All delineated wetlands on the site were included in the ESHA determinations by the applicant and by staff.

Sensitive Vegetation Associations and Plant Species

There are several types of degraded scrub communities on the site. Most are variants of coastal sage scrub and are variously dominated by salt bush (*Atriplex lentiformis*), coyote bush (*Baccharis pilularis*), and California sagebrush (*Artemisia californica*). Most of the associated herbaceous species are weedy and non-native, such as iceplant (Mesembryanthemum nodiflorum), annual grasses (*Bromus diandrus, B. madritensis, B. hordeaceus, Lolium multiflorum*), black mustard (*Brassica nigra*), and tocalote (*Centaurea melitensis*). These scrub communities are patchily distributed in drainages and on the disturbed areas of soil stockpiles. The coastal sage scrub associations on

the site would not qualify as ESHA based on their vegetation characteristics, because they are severely degraded and broken into small patches. However, portions of these stands of scrub have been used for at least ten years by one or two, potentially perhaps three, pair of California gnatcatchers. Areas with significant gnatcatcher use perform an important ecosystem function, are increasingly rare, and are easily disturbed and therefore meet the definition of ESHA under the Coastal Act

Another scrub community present on the site is coastal bluff scrub. This vegetation type has been considered rare by the California Department of Fish and Game since at least 1986. *Dudleya* species are characteristic components of coastal bluff scrub and Blochman's Dudleya (*D. blochmaniae*) is an important component of coastal bluff scrub at Marblehead. Blochman's Dudleya is a California Native Plant Society "1B" species, indicating that it is rare in California and elsewhere and meets the listing criteria under the California Endangered Species Act. Coastal bluff scrub and Blochman's Dudleya habitat are rare and easily disturbed and therefore meet the definition of ESHA under the Coastal Act. This habitat was mapped as ESHA by both the applicant and staff.

There are also small patches of native California perennial grassland still present on the site. These areas are labelled Needlegrass Grasslands on the vegetation maps. Needlegrass (*Nasella pulchra*) is one of the dominant species in this vegetative association. At Marblehead several other species of native bunchgrasses are present as are several species of native forbs, such as wild hyacinth (*Dichelostemma capitatum*) and shooting stars (*Dodecatheon clevelandii*). The presence of several species of bunchgrasses in association with native forbs characteristic California perennial grassland suggests that these patches may be remnants of original coastal prairie. Perennial grasslands are one the most impacted native habitats in California. Due to the extreme rarity of the vegetation type, the relatively high diversity of the patches at Marblehead, and their susceptibility to disturbance, the patches of needlegrass grassland at Marblehead meet the definition of ESHA under the Coastal Act. This habitat was mapped as ESHA by both the applicant and staff.

Some of differences between the two staff delineations of the ESHA boundaries are due to revisions in the vegetation map that were taken into account during the second staff delineation. An additional revision dated December 12, 2002 was incorporated into staff's second delineation but staff did not receive a revised ESHA map from the applicant.

California Gnatcatcher Habitat

The California gnatcatcher (*Polioptila californica*) is an insectivorous bird that preferentially nests and feeds in scrub vegetation dominated by combinations of California sagebrush, California Encelia (*Encelia californica*), and flat-top buckwheat (*Eriogonum fasciculatum*). Where these species are in low abundance, California gnatcatchers will forage for insects on other species, including some non-natives such as black mustard. At Marblehead the gnatcatchers appear to rely on California

sagebrush, saltbush, mixed scrub (sagebrush is not dominant), and areas of various shrubs mixed with grasslands. In general, these areas of scrub are within the canyons because the flatter areas are routinely disced.

Since the coastal sage scrub vegetation at Marblehead is significantly degraded, I do not believe that one can automatically assume that all such vegetation could serve as gnatcatcher habitat. Thus I do not believe there is a strong basis for delineating gnatcatcher habitat solely on the basis of the vegetation, as may be reasonable at more pristine locations. Rather, I think this determination must be made based on the observed use of the habitats by gnatcatchers and adjacent probable use areas identified by biologists in the field based on their best professional judgment. Fortunately, there have been several studies of gnatcatchers between 1990 and 2001. LSA counted gnatcatchers at Marblehead every few weeks from September 1990 through May 1991 and recorded one to four individuals at each survey. They concluded that the majority of potential gnatcatcher habitat was used by two pairs of birds throughout the winter. They also produced a map showing actual gnatcatcher sightings and areas of saltbush scrub and coastal bluff scrub. They did not attempt to delineate the probable gnatcatcher use areas. Gnatcatchers were also studied during 1996 and 1997 by Natural Resource Consultants. They apparently estimated the boundaries of use areas in 1996[1] and they recorded actual gnatcatcher sightings and estimated the boundaries of use areas in 1997. Between October 1999 and March 2000, Glen Lukos Associates gathered gnatcatcher data on 12 occasions incidental to wetland studies that they were conducting and mapped two occupied areas, defined as areas of multiple sightings. In 2001, Glen Lukos Associates conducted surveys for gnatcatchers and documented sightings, but did not attempt to document use areas.

California gnatcatcher habitat was considered in the ESHA determinations by the applicant and by staff, but the use of the available data was different in each of the three ESHA determinations and is the principal reason for differences in the boundary lines. At the time of the first delineation done by staff ecologist Dr. Jon Allen, the data were not available digitally. The composite map received from RBF was assumed to be documented use areas. The approximate outer boundary was sketched onto a base map along with the boundary of sensitive vegetation patches and then digitized to produce the ESHA map in the first staff report. Later, we received digital data for each of the various resource layers or our cartographic staff manually digitized maps received from RBF. I was able to use this digital data as the basis for staff's revised ESHA map. I did not use the coastal sage scrub areas mapped as coastal sage or salt bush scrub in the 1991 LSA report unless they included actual gnatcatcher sightings because the vegetation boundary was not originally intended to represent actual gnatcatcher use areas, but rather potential habitat. In addition, I did not include the area of observed use along the slope of the large soil stock pile because all the observations were of a single male who was utilizing a few scattered salt bushes in an otherwise unsuitable habitat during the non-breeding season of a single year, whereas other areas were both

[1] I have not seen this report. However, one of the maps received from RBF showed a portion of the estimated 1996 use area and the map displaying digitized data from all years received from RBF in September 2000 showed a 1996 use area. The shape a location of the 1996 use area differed somewhat in the two maps.

EXHIBIT 26

more natural and of a type that was used repeatedly. The biologists who estimated the use areas in the field did not anticipate that their sketches would be used as a basis for a jurisdictional determination and did not represent their boundaries to be precise. Generally, those boundaries correspond to canyon areas but in some places include portions of the flat terrain surrounding the canyons. Those areas are routinely disced and generally do not support habitat. I excluded from ESHA those estimated use areas above the top of slope of the canyons (as determined by CCC geologist, Dr. Mark Johnsson). I also excluded the estimated use area in the very narrow and very shallow terminal fork of canyon B where most of the shrubs grew above the plain of the surrounding flatland. When examined in the field this area appeared to the applicant's biologist and to me as qualitatively different from the areas where gnatcatchers had actually been sighted and unlikely to provide good gnatcatcher habitat. The ESHA map submitted for use in the staff report follows the boundaries of wetlands, sensitive vegetation types, and all gnatcatcher use areas with the above exceptions.

Buffers

The Commission generally requires a minimum 100-foot buffer around any delineated wetland. Larger buffers may be required for particularly rare and sensitive wetland types, such a southern California coastal saltmarsh. Given the type and location of wetlands at Marblehead, I recommend applying a 100-foot buffer. Dr. Allen and the applicant applied 100-foot buffers to wetlands.

The Commission has not developed a similar standard for terrestrial ESHA buffers. This may reflect the great range of types and sensitivities of terrestrial ESHAs. In addition, an understanding of the importance of buffers for terrestrial ESHA has increased as more information on the effects of disturbance has become available. At Marblehead ESHA buffers are needed to hold at a distance disturbance, such as physical activity, lights, noise, irrigation, domestic animals, and human-adapted pest species. Buffers also serve to mitigate the effects of underestimating the size of ESHA. For example, the coastal bluff scrub boundaries are based on the current location of emergent plants in a disturbed location and do not take into account the area of the seed bank or the area of suitable soils[2] for Blochman's Dudleya, both of which are important to define the area that would be occupied by this vegetation over time. California gnatcatchers are resident year around and hence will be subject to the severe disturbance effects of the construction of the residential community and associated infrastructure. For these reasons, I recommend a buffer of 100 feet around the designated ESHA. Dr. Allen made the same recommendation; the applicant did not recommend an ESHA buffer.

In addition to the 100-foot buffer surrounding designated ESHA, it is important to additionally buffer the ESHA in such a way as to prevent the creation of isolated islands

[2] In a June 27, 2002 letter to M. Osborne of the California Department of Fish and Game, botanist Fred Roberts estimates that there has been a 70% decline in suitable habitat for Blochman's Dudleya south of the Santa Monica Mountains and that fewer than 30 acres of such habitat remain in coastal Orange County.

of habitat, to maintain wildlife connectivity, and to reduce the perimeter to area ratio[3] for fingers of sensitive habitat that otherwise would be surrounded by disturbance associated with residential development. To this end, Dr. Allen recommended including the peninsular ridge separating the central canyon from the east canyon as part of the buffer. I concur. Also, Dr. Allen recommended including a portion of the area between the central canyon and western canyon "C" as buffer in order to protect patches of sensitive vegetation within the canyon "D" (Trident Canyon), to avoid isolating the ESHA associated with canyons "B" and "C", and to provide wildlife connectivity for avian species, especially gnatcatchers, and for mammals, especially coyotes which are critically important to control smaller predators that otherwise reduce the diversity of birds and other prey. From an ecological point-of-view, the larger this corridor is, the better because it increases the probability that the ecological functions of the nearby ESHA will not be compromised. The logical conclusion is that the best plan is no development. Therefore, there is an inevitable arbitrary element in setting such a boundary. Dr. Allen proposed a very wide corridor with the inland boundary near the extreme of the protruding edges of ESHA in the central and western canyons but following no particular topographic feature. I recommend a similar corridor, but suggest as an inland boundary the edge of the Trident Canyon (canyon "D"). This is a compromise solution that provides an adequate wildlife corridor and protects an important landform, while allowing development of a significant area of level land. It does potentially increase the intensity of allowable development near ESHA, but the 100-foot buffers are intended to mitigate the associated disturbance. The differences in the ESHA determinations and in the ESHA buffers recommended by staff and the applicant are shown in maps that will be sent under separate cover.

During a conference call with Commission staff on December 18, 2002, the applicant's biological consultant suggested several mitigative measures designed to reduce disturbance during construction and perhaps reduce the effects of development on gnatcatcher habitat and therefore justify smaller ESHA buffers in some areas. Some of these measures have apparently been used successfully elsewhere. If these suggestions are formally presented, I think it would be reasonable to reconsider the configuration of the ESHA buffers. However, with the information currently available, I recommend the buffers described above and shown on the maps being sent you by the mapping unit.

[3] In conservation biology, a measure of relative disturbance. For a given area of habitat, the longer the perimeter adjacent to disturbance factors the greater the intensity of disturbance.

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