

**CALIFORNIA COASTAL COMMISSION**

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Commission Action:

**STAFF REPORT: REGULAR CALENDAR**

**APPLICATION NUMBER:** 5-05-020 (Brightwater)

**APPLICANT:** Hearthside Homes/Signal Landmark

**AGENT:** Ed Mountford, Dave Neish, Donna Andrews, Susan Hori

**PROJECT LOCATION:** 17201 Bolsa Chica Road, Bolsa Chica, Orange County

**PROJECT DESCRIPTION:** Approval of Vesting Tentative Tract Map (VTTM) 15460 for the subdivision and development of two existing parcels into the 105.3-acre Brightwater community consisting of 349- residential lots on 67.9 acres and 37.4-acres of habitat restoration and public trail, located primarily on the upper bench of the Bolsa Chica Mesa. The proposed project also includes the construction of 349 single-family homes and the construction of two small local parks within the residential community. The 37.4-acre habitat area consists of a 34.2-acre coastal sage scrub and native grassland community located along the western and southern slope and bluff top edges slope and bluff face areas and the construction of a 3.2-acre Los Patos Wetland and Southern Tarplant preserve. The coastal sage scrub and native grassland restoration area also serves as a buffer between the proposed development and the existing "Eucalyptus tree" environmentally sensitive habitat area (ESHA). Three proposed vertical walkways providing resident access to the habitat trail will also be available to the public. Approved VTTM 15460 also includes the creation of an 11.8-acre residual parcel located on the lower bench of the Bolsa Chica Mesa.

440,000 cubic yards of grading (220,000 c.y. cut, 220,000 c.y. fill) is proposed to carry out the proposed project. Infrastructure improvements include the construction of a 1.2-million gallon underground drinking water reservoir and aboveground pump station and a new 54" to 66" storm drain and rip-rap energy dissipater discharging treated runoff to the off-site Isolated Pocket Lowland area. Public access, including pedestrian, bicycle and vehicular access and public parking will be allowed throughout the community. The Los Patos Avenue frontage will also be widened, paved and landscaped creating 114 (unstriped) public parking spaces.

**LOCAL APPROVALS RECEIVED:**

**SUBSTANTIVE FILE DOCUMENTS:**

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**SUMMARY OF STAFF RECOMMENDATION:**

The Brightwater development project, as proposed, raises issues concerning protection of environmentally sensitive habitat areas (ESHA) and important raptor foraging habitat adjacent to one of the three on-site ESHAs; protection of marine resources and the protection of cultural resources. The proposed project would also create a new irregularly shaped 11.8-ac separate legal parcel on the lower bench of the Bolsa Chica Mesa that, if developed, would cause significant impacts to Warner Pond wetland for an access road and significant impacts to a large population of Southern Tarplant in developing the parcel and that raises concerns of geologic safety with the Fault Zone of the Newport-Inglewood Fault running through a portion of the proposed new lot. The primary outstanding issues are: 1) significantly inadequate Eucalyptus tree ESHA buffer; 2) fuel modification throughout the already undersized Eucalyptus Grove ESHA buffer in order to protect the proposed adjacent residential development; 3) elimination of 68 acres of raptor foraging habitat without mitigation for the lost habitat; 4) inadequate Burrowing Owl ESHA buffer; 5) encroachment into the undersized Burrowing Owl ESHA buffer with residential lots, grading to support residential development and for residential fire protection purposes; 6) inadequate mitigation of impacts to ORA-83, an important archaeological site that has twice been found eligible by the California State Historic Resources Commission for listing as a State, as well as a National Historic Site; and 7) inadequate water quality management plan provisions. Staff recommends **approval** of the proposed project with special conditions necessary to bring the project into conformance with the coastal resources protection policies of the Coastal Act.

The special conditions proposed by staff would require that 1) an open space restriction be placed on the habitat areas; 2) an offer to dedicate the proposed Coastal Sage Scrub and Native Grassland Creation habitat and Southern Tarplant and Seasonal Pond Environmental Protection Area be recorded; 3) a trail easement be offered over the public trail and over the portion of the grassland habitat area that will be subject to approved fuel modification; 4) a public access and habitat management program be developed and funding be identified to carry out these activities; 5) the applicant abide by the California Burrowing Owl Consortium guidelines for avoiding and mitigating impacts to burrowing owls during construction; 6) the CC&R's of the subdivision reflect certain requirements, primarily dealing with public access and habitat protection conditions; 7) construction and development phasing be carried out in a manner that is protective of the biological resources and assures that the public access and recreation are prioritized; 8) erosion control measures are in place to prevent impacts to the marine environment; 9) the

fencing off of habitat areas and the identification of construction staging areas that will not adversely impact sensitive resources; 10) the preparation of a final habitat management plan with appropriately sized, planted and managed ESHA buffers, controls activities within those buffers, and the addition of the Southern Tarplant and Seasonal Pond Environmental Protection Area into the Plan; 11) native and non-native, non-invasive appropriate landscaping throughout the project area; 12) fuel modification within the ESHA buffer areas be regulated; 13) lighting be directed away from habitat buffer areas; 14) certain requirements relating to walls, fences, gates, safety devices and other habitat barriers be followed; 15) all subdivision streets, sidewalks, parking and trails and parks be open to the general public; 16) additional requirements on the proposed water quality management plan be observed; 17) a revised tentative tract map eliminating the proposed residual parcel on the lower bench, and revised plans showing the enlargement of the Eucalyptus Tree and Burrowing Owl ESHA buffers, public access signage and cultural resources interpretive plan along the habitat trail, revised stormdrain plan, and off-site raptor foraging habitat plans be submitted; 18) additional slope stability analysis for the revised grading plan be performed and the developer conform development plans to geotechnical recommendations; 19) the developer assume the risks of development; 20) the developer treat the exterior appearance of structures visible from the public areas; 21) the height of the structures abutting and visible from the public trails be kept to no more than 31.5 feet, as proposed; 22) procedures for the review and approval of future development be followed; 23) requirements and procedures established herein to be followed regarding the possible discovery of additional archaeological resources during grading; 24) the reports required to be prepared in conjunction with the research, investigation and salvage of ORA-83 and curation of the artifacts recovered from the archaeological site be disseminated; 25) the applicant obtain all other necessary agency approvals; 26) the applicant perform work in strict compliance with all of the special conditions of this permit and 27) applicant be informed of the Commission staff's right to inspect the site.

## **EXECUTIVE SUMMARY**

Hearthside Homes has submitted and withdrawn two previous coastal development permit applications for development of the upper bench of the Bolsa Chica Mesa. On November 6, 2002 coastal development permit application 5-02-375 was submitted, but it was eventually withdrawn by the applicant (in May of 2004) prior to the preparation of a written staff recommendation and Commission public hearing. On May 21, 2004 the property owner submitted application 5-04-192. Commission staff prepared a staff report with a recommendation of denial of the project as it was designed citing significant inconsistencies with Coastal Act provisions regarding public access and public recreation opportunities, especially lower cost visitor and recreational facilities; the protection and enhancement of marine water quality; protection of environmentally sensitive habitat areas (ESHA) and other important land resources and the allowance of only resource dependent uses in ESHA and the requirement for adequate buffers between ESHA and development

areas; the protection of archaeological and cultural resources; and the protection of scenic coastal resources to and along the coast by minimizing the alteration of natural landforms.

The Commission held a public hearing on application 5-04-192 on October 13, 2004 in San Diego. Following Commission discussion of the project the applicant withdrew the application. The Commission waived the six-month waiting period at the applicant's request, allowing immediate reapplication for the development of the site. Following the October public hearing the applicant and staff had several meetings including a meeting on-site with planning and technical staff where the applicant's proposed setback areas were staked allowing a better perspective of the relationship of the proposed development to the habitat areas. On January 21, 2005 Hearthside Homes submitted the subject coastal development permit application 5-05-020 after making several modifications to the previous project design. The basic elements of the Brightwater Development project have not changed. The proposal still includes the subdivision of 2 lots into a single-family residential community and a passive public park/habitat restoration area along the western top-of-slope and gentle slope area and the southern bluff top edge and bluff face of the upper bench. Although these basic elements have not changed, the applicant has made several changes to the project aimed at addressing the Coastal Act inconsistencies of the project as voiced by the staff and by the Commission. Some of the changes are significant, bringing certain aspects of the project into conformance with the Coastal Act, if they are implemented. Other changes partially address the project's inconsistency with certain aspects of the Coastal Act but do not bring the project into conformance with applicable Coastal Act provisions while some aspects have not been modified at all and remain inconsistent with the Coastal Act. Staff recommends approval of this new proposal with special conditions to bring the proposed project into conformance with the Coastal Act in the remaining areas. The discussion below compares the October 2004 project with the current, January 2005 project.

The previously proposed guard-gated, private residential community will now be open to general public vehicular access, also allowing public parking on all subdivision streets. Under the two previous applications public vehicular and pedestrian access was prohibited into the community, but under application 5-04-192 the applicant agreed to allow pedestrian access through the guard gates and added a new pedestrian gate through the center of the site in response to staff comments that the prohibition on public vehicular access and allowance for pedestrian access only at either end of the 105 acre site did not maximize public access. All residential units will have at least two on-site enclosed parking spaces and some units will have three and four spaces. Therefore, the on-street parking should be adequate for residential guests and visitors to the habitat park and trail. One hundred fourteen additional on-street parking spaces are also being provided along Los Patos Avenue. However, the public pedestrian trail is no longer being proposed through the center of the site since the public can now park on any of the residential streets to gain access to the habitat park and trail. With these changes to the project, and as conditioned to assure that the public trail is adequately signed informing the public of its availability, that on-street parking remains publicly accessible and that the trail and benches are constructed in the early phases of the development and properly maintained,

the proposed project is consistent with the public access and public recreation policies of the Coastal Act.

Another significant change that has occurred with the current project design is the elimination of the previously proposed "restoration" grading consisting of a 30 ft. high, 2 acre fill area at the southern bluff edge. The fill would have been within the Eucalyptus tree ESHA buffer area, and would have also resulted in significant landform alteration and visual impacts. With the elimination of this fill the proposed project minimizes landform alteration, and as conditioned to soften the visual impacts of the development through landscaping and exterior wall and building color compatibility, the proposed project no longer raises issues of conformance with the Coastal Act provisions protecting visual resources.

The previous project raised significant issues of consistency with the Coastal Act provisions calling for the protection of biological resources. The Brightwater development site contains three environmentally sensitive habitat areas (ESHA) as defined by Section 30107.5 of the Coastal Act – the approximately 5-acres Eucalyptus trees located primarily along the southern bluff face, the Burrowing Owl habitat within the central bluff area and the Southern Tarplant near the Los Patos wetland (Exhibit 20, Fig. 1). The two previous applications did not recognize or protect in place the Southern Tarplant ESHA populations or the Burrowing Owl ESHA habitat. The applicant initially proposed to translocate all tarplant to the lower bench to make way for residential, private recreation, water quality wetlands and public trail development. Subsequently, the applicant eliminated the lower bench translocation plan and instead proposed to translocate the tarplant to other upper bench nearby populations or immediately adjacent to its present location. Both the Los Patos wetland and the Southern Tarplant ESHA were located within the proposed 2.5-ac private recreational facility. For the tarplant found near the Los Patos wetland but further than 100 feet away from the wetland, the applicant proposed to relocate the tarplant to within 100 ft. of the wetland so that all of the tarplant would be within the 100 ft. wetland buffer. Additionally, the applicant was proposing a decomposed granite maintenance road and an elevated boardwalk for wetland viewing within the wetland and tarplant buffers. Finally, there was additional encroachment into the Los Patos wetland buffer and direct impacts to the Southern Tarplant ESHA adjacent to the wetland due to the construction of the then proposed 2 million gallon underground water reservoir. The tarplant translocation as well as the recreational and water storage facility encroachments into the wetland and tarplant buffers are activities that are inconsistent with Sections 30240 and 30233 of the Coastal Act.

In the current Brightwater development proposal the applicant has eliminated the Southern Tarplant translocation plan and is protecting the Southern Tarplant ESHA in place with the staff recommended 50-foot wide buffer. Additionally, the project no longer includes the private recreational facility that surrounded and significantly impacted the wetland and Tarplant ESHA, and the underground water reservoir has been redesigned such that there will be no encroachment into the habitat or habitat buffer except for a one time encroachment into the buffers in order to construct the proposed 1.2\_million gallon

underground water reservoir . The area of the previously proposed 2.5-acre private recreation center is now proposed as a fenced 3.2 acre "Southern Tarplant and Seasonal Pond Environmental Protection Area." As conditioned, to provide proper buffers for the wetlands and Tarplant ESHA and to provide for monitoring and on-going maintenance and the preservation of this habitat area in perpetuity, the proposed project is consistent with Sections 30240 and 30233 with regards to the Southern Tarplant of the upper bench and the Los Patos seasonal wetland.

Under the previous application the proposed water quality treatment plan included a vegetated treatment system with a series of five cleansing wetlands and a 1.3-acre detention basin located on the slope separating the upper and lower benches. Several of the created wetlands would have impacted Southern Tarplant and the proposed detention basin was to be located within the Burrowing Owl ESHA. The applicant is now proposing to eliminate these features and is now proposing to provide a stormwater filtration system within the residential development area. The stormwater would then be discharged through a new 54" to 66" buried pipe to be constructed at the location of an existing oil pipeline that goes through an area between the Eucalyptus Grove ESHA discharge to the Isolated Pocket Lowland. Commission staff ecologist, Dr. John Dixon, recommends that the alignment of the proposed stormdrain can be found consistent Section 30240 of the Coastal Act based on the site-specific unique nature of the Eucalyptus ESHA on the Bolsa Chica Mesa where it is only the non-native Eucalyptus trees that constitute the ESHA, as detailed in Dr. Dixon's memo (Exhibit 20, pages 2-5).

The proposed 66" outlet contains an internal energy-dissipating collar and a rip-rap apron or other energy dissipater will be constructed below the outlet, on an existing dirt road. The State Lands Commission, owner of the pocket lowland area has consented to this new stormdrain and discharge plan. They have also evaluated the potential impacts on the to-be-restored muted tidal wetland and found them to be insignificant. The Commission also notes that the use of the existing 24 inch stormdrain would have required a much more extensive use of rip-rap or the extension of the existing stormdrain or the combination of the two, for approximately 200 feet, since the 24" pipe stops at mid bluff and does not extend down to the pocket lowlands as will the proposed 66" stormdrain. Further, there is a Eucalyptus tree at the immediate downslope discharge point of the existing 24" stormdrain, calling into question whether it can be used for runoff control purposes for the proposed residential development in a manner that is consistent with Section 30240 of the Coastal Act. The proposed 66" stormdrain does not raise this issue as it is located in an area that does not contain any Eucalyptus, palm or pine trees, all of which are used by the numerous raptors that use the site.

While this aspect of the project can be found consistent with the marine resources protection policies of the Coastal Act, other provisions of the water quality management program are not adequate as proposed. The project is therefore conditioned to bring it into conformance with the applicable marine protection provisions of the Coastal Act.



The applicant has also made other changes to the project that do not go far enough to bring the project into conformance with the protection of the other two environmentally sensitive habitat areas of the project site. The applicant did not previously, and still does not agree with the ESHA determination for the Burrowing Owl habitat and contends that the Burrowing Owl does not reside on the project site, but only winters on-site. The burrowing owl (*Athene cunicularia*) is a California Species of Special Concern (CSC), as designated by the California Department of Fish and Game. This bird hunts for prey over open areas and grasslands and typically nests in the abandoned burrows of rodents. Evidence of burrowing owl use of the site was documented in 2001-2002 and 2002-2003 and denoted "burrowing owl use area" by the applicant's biologist. The applicant objected to Commission staff ecologist's designation of the applicant's "burrowing owl use area" as ESHA. The applicant's consultant countered that the Commission should use the actual burrows used by the owls rather than all of the nearby potential habitat and provided staff with a polygon created by connecting those burrows with straight lines. In their revised map of the owl use area, the applicant's consultant, LSA, omitted one burrow where an owl was seen once but then abandoned. Staff accepts this smaller "burrowing owl use area" as the Burrowing Owl ESHA boundary after going out in the field with the biologists who conducted the original surveys and a review of the information submitted subsequent to the October 2004 hearing (Exhibit 17b). Although there is merit in accepting the applicant's reduced Burrowing Owl ESHA delineation as proposed, there is no justification for the proposed reduction in the Burrowing Owl ESHA buffer or the grading within the buffer. Staff continues to recommend a 164 ft. (50 meter) buffer and the applicant is proposing a buffer of only 100 feet with an additional 50 ft. wide permanently irrigated area immediately adjacent to the residential lots<sup>1</sup>. Further, the proposed project also includes grading within the 50 foot area closest to the residential lots in order to create the residential pads. As conditioned, the applicant must also abide by the "Burrowing Owl Survey Protocol and Mitigation Guidelines" by California Burrowing Owl Consortium to determine if there is any occupation of the burrows of the Burrowing Owl ESHA. Only as conditioned to submit revised plans for a 164 ft. wide Burrowing Owl buffer, elimination residential grading in the Burrowing Owl buffer, and planting and maintaining of the buffer for habitat purposes consistent with the approved fuel modification and habitat management plans can the project be found consistent with Section 30240(b) of the Coastal Act with regards to the provision of an adequate buffer to protect the Burrowing Owl ESHA.

Another area in which the applicant has made insufficient changes is the size of the Eucalyptus Tree ESHA buffer and encroachments into it for fuel modification purposes. In the previous applications the Eucalyptus tree ESHA buffer was proposed at 100 ft. in width, as measured from the edge of the Eucalyptus grove ESHA. This is less than half the width of the staff-recommended 328-foot (100-meter) Eucalyptus tree ESHA buffer.

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<sup>1</sup> The Initial January 21, 2005 application proposed a 150 ft. buffer between the Burrowing Owl ESHA and the residential lots. This is already 14 ft smaller than the staff recommended 164 ft. (50 meter) Burrowing Owl ESHA buffer. Then on March 11, 2005 the applicant informed staff that the Orange County Fire Authority wanted the 50 ft. closest to the homes permanently irrigated for fire protection purposes. The applicant then requested that staff not consider the 50 ft. area closest to the home as habitat buffer but as "ecotone area" as a transition between the habitat and the residential area (Exhibit 4).

In addition to the grossly undersized buffer the applicant previously proposed several significant encroachments into the buffer and into the ESHA itself. Due to the proximity of the future homes along the southern bluff edge to the Eucalyptus trees, under the applicant's proposal the entire 100 ft. wide buffer would also double as the Orange County Fire Authority (OCFA) required Fuel Modification area. Not only did Fuel Modification Zone D include the entire habitat buffer, it also overlapped the Eucalyptus Grove ESHA itself. In order to protect sixteen of the homes closest to the trees, the entire ESHA buffer was required to be permanently irrigated and its plant palette strictly controlled for fire suppression purposes instead of being planted and minimally managed to protect the ESHA from adjacent proposed urban uses (Exhibit 14). Additionally, there was encroachment into the actual Eucalyptus grove ESHA for initial and continued modification of the understory of the Eucalyptus Grove ESHA affecting approximately 0.8 acres of the existing five-acre grove. In addition to the use of the entire habitat buffer for required Fuel Modification, additional encroachments into the reduced Eucalyptus Grove ESHA buffer under the October 2004 project included: (1) approximately 600 linear feet of the proposed 12 ft. wide paved, all-weather, pedestrian/bicycle trail; (2) significant grading activity (including a 30 ft. high fill slope, two acres in size); (3) five of 30 proposed public parking spaces; and (4) approximately 250 ft. of the 32 ft. wide paved extension of Bolsa Chica Street.

Under the current application a public trail is still being proposed to allow bird watching and scenic views of the wetlands and Pacific Ocean but the trail has been reduced to 6 ft. in width, will have a decomposed granite surface and will be relocated closer to the residential lots. The 2-acre, 30 ft. high fill ("restoration") slope has also been eliminated as well as the public parking that was proposed atop the fill and the extension of Bolsa Chica Street. The southern bluff face area will now be left in open space as part of the Eucalyptus grove ESHA buffer with the elimination of the proposed fill slope.

As measured from the landward edge of the Eucalyptus tree ESHA, the applicant is now proposing a Eucalyptus ESHA buffer that varies from 150 ft. (46 meters) in the western portion to 382 ft. (116 meters) in the eastern portion of the buffer, with the average width being 274 ft. (84 meters). Staff notes that where the Eucalyptus grove ESHA buffer would be the widest is where there is a fairly steep slope separating the trees from the bluff top development area. In that area the proposed residential lots are set back 100 ft. from the bluff edge. Therefore the majority of this wider ESHA buffer is vertical slope area and not horizontal distance at the same elevation of the proposed residential development. The horizontal buffer distance (between the proposed lots and the bluff edge) is 100 ft. Further, the Commission notes that the raptors generally use the upper portion of the trees for nesting, roosting and perching. Therefore it is the distance - in a straight line - between the development and the tops of the trees that is important. Staff is continuing to recommend that the Eucalyptus Tree ESHA buffer be no less than 328 feet (100 meters) in width, measured from the landward-most trees, for the entire length of the Eucalyptus ESHA and that no residential support development be allowed in the buffer, in order to adequately protect the viability of the trees that have been designated ESHA under the Coastal Act by the Department of Fish and Game and recognized as such by the courts as



well as the Coastal Commission. In order to be found consistent with the Coastal Act provisions regarding the protection of environmentally sensitive habitat areas the Eucalyptus Tree ESHA buffer must be sufficiently sized to protect the raptors that use the trees. For the reasons detailed in Section D of this report, only as conditioned to increase the size of the buffer to 328 feet (100 meters) can the proposed project be found consistent with the Coastal Act regarding this resource. There is a gap through the Eucalyptus tree ESHA where there is an existing oil pipeline. The applicant is proposing to use that same alignment to construct the proposed new 54" to 66" storm drain. The proposed project is conditioned to avoid grading within 500 feet of the Eucalyptus Tree ESHA during the breeding season if raptors are present. The proposed project is also conditioned to employ erosion control and water quality BMPs during grading and construction., as conditioned, the proposed project can be found consistent with Section 30240 of the Coastal Act.

Under the October 2004 Brightwater project proposal, residential development covered all of the area that was formerly occupied by the significant archaeological site, ORA-83, known as the Cogged Stone Site. Although the applicant has carried out a comprehensive data recovery program through coastal development permits issued by the Coastal Commission beginning more than 20 years ago, there is still merit under the Coastal Act for further mitigation of the significant archaeological resources of ORA-83. ORA-83 has twice been recognized by the State Historical Resources Commission as being eligible for listing on both the State and National Register of Historical Places. The applicant states that under the current application, unlike the 2004 proposal, a significant portion of the area previously occupied by ORA-83 will be preserved in open space and accessible to the public. However, this mitigation is inadequate in meeting the requirements of Section 30244 of the Coastal Act. The applicant proposes no interpretive signage or displays along the trails acknowledging the importance of the site to prehistoric and historic Californians and informing the public of ORA-83, nor the curation or dissemination of the wealth of data and artifacts that have been recovered from the site in over 20 years of investigation. Finally, there is still the possibility that additional cultural resources may be discovered when grading commences on relatively undisturbed portions of the site. Only as conditioned to provide for the protection of any further discoveries of significant cultural deposits, to provide for appropriate interpretive signage concerning the cultural heritage of the site, to agree to donate the recovered artifacts to an appropriate curation facility in Orange County and to disseminate the series of final reports that were required to be prepared and to have an archaeologist and Native American monitor present during further grading activities is the proposed project consistent with Section 30244 of the Coastal Act. Further, the Commission notes that a significant portion of ORA-83 is within the staff recommended 328 foot Eucalyptus Tree ESHA buffer. Therefore, if the full habitat buffer is required, the majority of ORA-83 will also remain in an undeveloped state, which is the desirable disposition of this area as stated by most of the Native Americans, archaeologists, anthropologists, astronomers and environmentalists who have written to the Commission concerning the 2004 application regarding the preservation of the cultural resources of the site and in the current application (Exhibits 18, 19, 22-24). The issue of archaeoastronomy and its importance has also been raised at the Brightwater site in both the 2004 and current application. Although there is dispute

among the applicant's archaeologist and Ms. Jeffredo-Warden as to whether the Brightwater site possesses significance in this area, if ORA-83 is preserved in open space, the opportunity for these observations, if they are available from the project site, are also preserved.

Finally, there are two issue areas in which the applicant has made no changes. Namely, the applicant still refuses to include the 103 acres<sup>2</sup> they own on the lower bench of the Bolsa Chica Mesa in this current application, and there is no mitigation proposed for the significant loss of raptor foraging habitat that the project would cause on the upper bench. In all of the Commission's previous consideration of the Bolsa Chica Mesa, beginning with the first LCP action in the mid 1980's, both the upper and lower benches of the Bolsa Chica Mesa as well as the Bolsa Chica Lowlands, have been before the Commission. Beginning with the applicant's first coastal development permit application for the proposed Brightwater development in November 2002 the applicant has not included its 103-acre ownership on the lower bench. The lower bench is a critical part of the Bolsa Chica ecosystem, and thus it is critical that the lower bench be included in the assessment of project impacts on the ecosystem. Despite numerous staff requests that the applicant include its lower bench holdings in the application for development of the upper bench and the slope between the upper and lower benches, the applicant has refused to do so, with the exception of the 11.8-acre portion of the existing Parcel 2, which lies primarily on the upper bench. The applicant is requesting that the Commission split off the lower bench portion of Parcel 2, making it a separate legal parcel. The applicant refuses to include its lower bench ownership in the current application because they wish to sell it to the Wildlife Conservation Board and in August 2004 entered into an agreement to sell it for \$65 million.

The applicant stated in a September 13, 2004 letter to staff that Hearthside Homes does not wish to include their lower bench holdings in the coastal development permit application because, "[a]mending our application to include the Lower Bench would expose Hearthside to the possibility of a Commission decision imposing a conservation easement and jeopardize the agreement between Signal Landmark and WCB" (Exhibit 6a). The applicant made the assumption about the imposition of a conservation easement over the lower bench based on the Commission's 2000 LCP suggested modification to do so in conjunction with allowing development on the upper bench with a reduced 100 ft. setback from the bluff edge, as explained in Section C of this staff report. If the applicant were to include the lower bench area in the application and the Commission indeed imposed a conservation easement over it, as staff would recommend, the applicant may not get \$65 million for the sale of the land, as the purchase price in the existing purchase-sale agreement is at market rate, based on the value of residential development not based on a more restrictive conservation land use. Because the applicant has refused to include

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<sup>2</sup> The 103 acres of land on the lower bench owned by the applicant includes the 11.8-acre remnant portion of Parcel 2 that would be left over under VTTM 15460.. The majority of Parcel 2 is located on the upper bench (Exhibit 5). Therefore, the applicant has included in this application a proposal for development on 11.8 acres of the 103 acres of their lower bench ownership, through their request to create a separate legal parcel of this 11.8 land.

the lower bench in the subject application, thereby preventing the Commission from assuring that it will be restricted to conservation land uses, the Commission cannot allow a reduced setback for development on the upper bench, as the applicant continues to propose. As conditioned, the applicant must submit a revised tentative tract map showing that the 11.8 portion of Parcel 2 that lies on the lower bench be connected to an adjacent parcel that will remain with the proposed VTTM 15460 that is before the Commission.

Seventy-five acres of raptor foraging habitat, the non-native annual grassland and ruderal vegetation that covers the majority of the project site, was being eliminated without mitigation under the previous application. The current application reduces the development footprint by approximately 9 acres and thus results in a reduction in the amount of annual grassland//ruderal vegetation being eliminated. Although the impact area has been reduced to 68 acres, this loss is a significant unmitigated loss of important habitat. Dr. John Dixon, Commission staff ecologist asserts that the Eucalyptus Trees would cease to function as ESHA were there not adequate foraging habitat nearby because many of the raptors that use the Eucalyptus trees for hunting perches and roosting or nesting sites forage in the wetlands, the coastal sage scrub along the bluff edge and the mesa grasslands being impacted by the proposed project. While not considered an environmentally sensitive habitat area within the meaning of Section 30107.5 of the Coastal Act, the non-native annual grassland and ruderal vegetation that covers the majority of the 105.3-acre project site is important foraging habitat for many species of raptors, including white-tailed kites (a Fully Protected Species), and several California Species of Special Concern (CSC) such as the northern harriers and burrowing owls. This vegetation is also considered significant because it represents one of the last significant grasslands adjacent to a coastal wetland, making it an integral part of the wetland/upland ecosystem. Because of the importance of the non-native annual grassland/ruderal vegetation, the Department of Fish and Game recommended mitigation for the loss of this habitat at the project site at a ratio of 0.5 acres of preservation to 1.0 acres of loss. Following this recommendation the applicant should provide 34 acres of preserved grasslands. Although the applicant is not proposing to mitigate the loss of raptor foraging habitat, the Eucalyptus Tree and Burrowing Owl ESHA buffers can be used to partially mitigate this loss since the applicant is planning to restore this area partially with native grassland. However, the applicant's proposed buffer falls far short of the 34 acres needed to mitigate the loss of the non-native grassland. With the varying width 150 to 382 ft. (counting the permanently irrigated area) and counting even the non-grassland habitat, the applicant would have less than 30 acres. The Department of Fish and Game has stated that they would not give the applicant credit for non-grassland habitat and no credit will be given for any areas that are subject to any fuel modification. As conditioned to widened these buffers and remove the restriction on the plant palette from all but the first 50 feet of the buffer closest to the homes, to plant the majority of the remainder of the buffer in native grassland species and to provide the remainder off-site of the 34 acres of native or annual grassland that cannot be provided on-site, consistent with the final approved final habitat management plan, the proposed project is consistent with the Coastal Act concerning the protection of raptor foraging habitat.

**Areas of Remaining Major Controversy**

- **Inadequate Buffer Between Eucalyptus Tree ESHA and Adjacent Development.** The trees of the Eucalyptus Grove are used as nesting, roosting, and perching sites by many species of raptors, including white-tailed kites, red-tailed hawks, and great horned owls. Adequate buffers between habitat areas and development are essential in maintaining the viability of habitat areas. In order to provide adjacent foraging habitat and to prevent disturbance to nesting areas, staff continues to recommend a 328 foot (100-meter) buffer between the Eucalyptus Grove ESHA and the adjacent development. If grading occurs when raptors are nesting, an even larger buffer of 500 ft. (152 meters) should be provided around the nest during construction activities, as detailed in Section D, Biological Resources, of this staff report. The currently proposed Brightwater development project provides a varying width Eucalyptus Grove buffer ranging from 100 to 332 feet between the most landward trees and the proposed residential lots. However, the Commission notes that where the buffer is widest is at the easternmost portion of the site. There the majority of the Eucalyptus trees are located further down the fairly steep bluff face and the distance between the trees and the proposed residential lots represents a significant vertical distance. In this area the residential lots are set back only 100 ft. from the bluff edge but the lot is setback up to 382 feet from the northernmost Eucalyptus tree in one instance. Further, it must be remembered that it is the tops of the trees that are used by the raptors for nesting, roosting and perching. The distance from the tree-tops to the residential lots is much closer to 100 than to 332 ft.
- **The Eucalyptus Tree ESHA Buffer Further Reduced by Fuel Modification Requirements.** As stated above, the proposed Eucalyptus Tree ESHA buffer at 100 to 332 ft. in width is inadequate to protect the raptors from adjacent development and should be a minimum of 328 ft. (100 meters). When the current application was submitted on January 21, 2005 the proposed Eucalyptus ESHA buffer was proposed at 150 to 382 ft. in width. The applicant revised the buffer due to the concerns of Orange County Fire Authority (OCFA). Because OCFA is now requiring that the 50 ft. nearest the homes be permanently irrigated the applicant has removed this area from the habitat buffer (Exhibit 4). Although the applicant has been working with OCFA for months they do not have conceptual approval of their fire management program to date. An area that is permanently irrigated, containing a controlled plant palette and mowed, thinned, and pruned to protect adjacent development from fire damage is not planted or managed to protect the adjacent ESHA from disruption of its habitat value as required by Section 30240(b) of the Coastal Act. Therefore if these activities were to occur in the already inadequately sized Eucalyptus ESHA buffer the proposed project would be further inconsistent with the Coastal Act. The Commission notes that under the previous October 2004 project, OCFA still required the typical fuel modification activities, as well as the requirement of 100

ft. of permanent irrigation in addition to the normal requirement of 70 ft. of irrigated area between combustible structures and certain vegetation due to the presence of the Eucalyptus grove. These fuel modification requirements were imposed despite the fact that the applicant was also proposing to plant the area with native coastal prairie and coastal bluff scrub as well as provide other significant fire management mitigating features within the fuel modification area such as: a 12-ft wide paved all weather road with three 30 ft. wide paved access points (paseos) that was to also serve as a fire access road; a paved 30-space parking lot to also serve as a fuel break; a water feature within the fuel modification area with the construction of the series of 5 created wetlands and 1.3-acre detention basin; Class A construction of all roofs and the sprinklering of the 16 homes that were adjacent to the area where Fuel Modification Zone D encroached into the Eucalyptus grove. Therefore the Commission is not at all assured that OFCA will not require some or all the typical mowing, pruning, and thinning of ESHA buffer area along with already controlling the plant palette to only certain very low growing natives.

- With regards to the currently proposed Brightwater project, it is the opinion of the Commission's staff ecologist that limited fuel modification within a limited portion of the ESHA buffer, if it were first widened to be sufficiently protective, could be allowed consistent with Section 30240 of the Coastal Act. If the Eucalyptus ESHA buffer is widened to 328 feet (100 meters) the applicant's proposed restricted plant palette and permanent irrigation could be allowed only within the first 50 feet nearest the proposed residential lots. This area is called Zone B Ecotone Management area on the applicant's "Conceptual Plan Plant Palette for Open Space and ESHA Buffer" (Exhibit 4). Temporary (3-5 years), above ground irrigation could be allowed throughout the buffer for plant establishment. Mowing could also be allowed within the buffer in the 50 feet nearest the residential lots. The 50 foot wide area south of Zone B may also be mowed, if necessary but the plant palette would need to be unrestricted and must contain species appropriate to a native California grassland community in coastal Southern California. No other fuel modification practices would be allowed within the ESHA buffer.
- **Elimination of 68 Acres of Raptor Foraging Habitat Without Mitigation.** The 105.3-acre project site is primarily vegetated with annual grasslands and ruderal vegetation along with several environmentally sensitive habitat areas. Although annual grassland/ruderal vegetation type is non-native, it nevertheless provides foraging habitat for many species of raptors, including white-tailed kites (a Fully Protected Species) and several California Species of Special Concern (CSC) such as northern harriers and the burrowing owls. The loss of this vegetation is also considered significant because it represents one of the last significant grasslands adjacent to a coastal wetland, making it an integral part of the wetland/upland ecosystem. The project as proposed and approved by the County of Orange provides no mitigation for this significant adverse impact. The



Department of Fish and Game, in its comments on the project EIR recommended that the loss of annual grassland/ruderal vegetation be mitigated by preserving 0.5 acres of foraging habitat for each acre lost. Therefore 33.9 acres of habitat would need to be preserved. The proposed native grassland creation can be used to provide partial mitigation. However, with the applicant's proposed ESHA buffers the grassland area falls far short of this amount. Even counting the other habitat communities, including 0.41 acres of freshwater wetlands, the applicant would have less than 30 acres. Off-site opportunities for raptor foraging habitat mitigation however do exist.

**Inadequate Burrowing Owl ESHA Buffer.** The burrowing owl (*Athene cunicularia*) is a California Species of Special Concern (CSC), as designated by the California Department of Fish and Game. This bird hunts for prey over open areas and grasslands and typically nests in the abandoned burrows of rodents. Evidence of burrowing owl use of the site was documented in 2001-2002 and 2002-2003 and denoted "burrowing owl use area" by the applicant's biologist. Further, a raptor biologist with extensive knowledge of the Bolsa Chica Mesa has opined that wintering burrowing owls use the Bolsa Chica Mesa during most years. It is the opinion of the applicant that the bird does not reside on the project site, but only winters there. It is the opinion of the Commission's staff ecologist that the burrowing owl habitat on the upper bench constitutes an environmentally sensitive habitat area (ESHA) under the Coastal Act and therefore must be avoided. The applicant has revised their "burrowing owl use area" to exclude the ground squirrel burrows that were not observed being used by the owls citing that there are numerous nearby potential burrows without evidence of actual bird use. The applicant's revised "burrowing owl use area" omits one burrow, located in the slope of the vegetated gravel stockpile area, where the owl was seen once but vacated in favor of one of the other burrows. The applicant also recommends a Burrowing Owl ESHA buffer of 150 ft. (46 meters). Staff recommends that the Commission accept the revised burrowing owl use area as the extent of the burrowing owl ESHA. However, staff continues to recommend a 164 ft. (50 meter) buffer around the Burrowing Owl ESHA. There is no justification for the applicant's reduced Burrowing Owl ESHA buffer. Residential development shall be prohibited in the Burrowing Owl ESHA buffer and the same provisions for fuel modification within the Eucalyptus ESHA buffer should be allowed within the Burrowing Owl ESHA buffer.

The applicant has stated that the October 2004 project was designed to be consistent with the Commission's November, 2000 action on the proposed Bolsa Chica Local Coastal Program (LCP). The applicant likewise compares the current project to the November 2000 LCP stating that the project is consistent with the Commission's action. The standard of review for the proposed project is the Coastal Act and not the Commission's action on the LCP since the LCP was never certified. However, even if the Commission's November, 2000 action did govern this action, as is discussed in Section C of this staff report, "Comparison of the Proposed Project With the 2000

Bolsa Chica LCP" the proposed project is not consistent with the Commission's 2000 action on the LCP in a number of significant provisions.

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**STAFF RECOMMENDATION:**

**MOTION:**        *I move that the Commission approve Coastal Development Permit No. 5-05-020 pursuant to the staff recommendation.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION TO APPROVE THE PERMIT:**

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not 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 complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

**II.     STANDARD CONDITIONS:**

1.     Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2.     Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

### III. SPECIAL CONDITIONS

#### 1. OPEN SPACE, HABITAT AND PARKS

##### A. Open Space Restriction – Coastal Sage Scrub and Native Grassland Habitat Restoration Area

No development, as defined in Section 30106 of the Coastal Act, shall occur within the land identified as the habitat restoration area in the final habitat management plan approved by the Executive Director pursuant to Special Condition 10 (which lands are generally, but not fully, depicted in 20 and as described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for the following: habitat restoration and other development necessary to implement the final habitat management plan; fuel modification within those areas identified for fuel modification in the approved final fuel management plan pursuant to Special Condition 12 ; installation of utilities (only as approved by this permit); construction of water quality management structures (only as approved by this permit), grading (only as approved by this permit), public access trail and associated appurtenances and public access and interpretive signage (only as approved by this permit), and maintenance and repair activities pursuant to and in conjunction with the management and maintenance program detailed in Special Condition 4.

The following additional development may be allowed in the areas covered by this portion of this condition (1.A.) if approved by the Coastal Commission as an amendment to this coastal development permit or a new coastal development permit: habitat restoration beyond that listed above; maintenance, repair and upgrade of utilities; installation of water quality management structures and drains; and erosion control and repair.

The lands identified in this restriction shall be maintained in accordance with the final maintenance and funding programs approved by the Executive Director in accordance with Special Condition 4.

**B. Open Space Restriction - Southern Tarplant and Seasonal Pond Environmental Protection Area**

No development, as defined in Section 30106 of the Coastal Act, shall occur within the Southern Tarplant and Seasonal Pond Environmental Protection Area as approved by the Executive Director in the final habitat management plan pursuant to Special Condition 10 (which land is generally, but not fully, depicted in Exhibit 12) and as described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for the following: habitat restoration and other development necessary to implement the final habitat management plan; installation of the proposed underground water reservoir (only as approved by this permit); installation of interpretive signage (only as approved by this permit), maintenance and repair activities pursuant to and in conjunction with the management and maintenance program detailed in Special Condition 4.

**C. Open Space Restriction - Eucalyptus Environmentally Sensitive Habitat Area**

No development, as defined in Section 30106 of the Coastal Act, shall occur within the Eucalyptus Environmentally Sensitive Habitat Area (ESHA) as generally shown in the approved final habitat management plan approved by the Executive Director (which ESHA is generally, but not precisely, depicted in Exhibit 12) and as described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit.

**D. Open Space Restriction – Burrowing Owl Environmentally Sensitive Habitat Area Buffer**

No development, as defined in Section 30106 of the Coastal Act, shall occur within the Burrowing Owl Environmentally Sensitive Habitat Area (ESHA) as shown in the final habitat management plan approved by the Executive Director (which land is generally, but not fully, depicted in Exhibit 12) and as described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for the following: habitat restoration and other development necessary to implement the final habitat management plan, grading (only as approved in this permit), irrigation (only as approved in this permit), fuel modification (only as approved in this permit), and the pedestrian trail and appurtenances (as approved in this permit).

**E. PRIOR TO ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, formal legal descriptions and graphic depictions of the portions of the subject property**

affected by this condition, as generally described above and shown on 12a attached to the findings in support of approval of this permit.

**2. OFFER TO DEDICATE IN FEE FOR OPEN SPACE, HABITAT ENHANCEMENT AND PUBLIC ACCESS PURPOSES**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, and in order to implement the permittee's proposal, the permittee shall submit to the Executive Director, for review and approval, a proposed document(s) irrevocably offering the dedication of fee title over the areas identified below to a public agency(ies) or non-profit entity(ies) acceptable to the Executive Director, for public access, passive recreational use, habitat enhancement, and public trail purposes, as appropriate based on the restrictions set forth in these special conditions. Once the documents irrevocably offering to dedicate the areas identified below are approved, and also PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit evidence that it has executed and recorded those documents, completing that offer to dedicate. The land shall be offered for dedication subject to the restrictions on the use of that land set forth in the special conditions of this permit, and the offer to dedicate shall reflect that fact. The offer shall be recorded free of prior liens and encumbrances which the Executive Director determines may affect the interest being conveyed but subject to the OTD required by Special Condition 3. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. The entirety of the following land shall be offered for dedication: (1) all land as described within the final habitat management plan approved by the Executive Director pursuant to Special Condition 10 as the Coastal Sage Scrub and Native Grassland Creation and Monitoring Plan for ESHA Buffer Areas and the approximately 5-acre Eucalyptus grove, as generally shown in Exhibit 20 and (2) the Southern Tarplant and Seasonal Pond Environmental Protection Area, as generally shown in Exhibit 3.

**3. OFFER TO DEDICATE TRAIL AND FUEL MODIFICATION EASEMENTS**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall execute and record document(s) in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to the homeowners association proposed in conjunction with the approval of the Brightwater development an easement for (1) public pedestrian and passive recreational use of the trail corridor as described in Special Condition 15 of this permit, and (2) fuel modification (as approved in the final fuel modification plan) and habitat restoration (as approved in the final habitat management plan) of the 100 foot wide area immediately south of the rear property lines of the residential lots that abut the native grassland and coastal sage scrub habitat restoration area,. The recorded document(s) shall include legal descriptions of both the permittee's entire parcel(s) and the easement areas. The recorded document(s) shall reflect that development in the offered area is



restricted as set forth in the Special Conditions of this permit. The offer shall be recorded free of prior liens and encumbrances that the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. This OTD shall be recorded prior to the OTD required by Special Condition 2. The lands to be offered for a public trail are generally depicted on Brightwater project Development Plan, dated February 18, 2005 and the lands to be offered for fuel modification and habitat restoration purposes are generally shown on the Conceptual Plan OCFA Protection Zones and Program Description, dated March 10, 2005 as modified in the final fuel modification plan and final habitat management plan of this permit.

The lands identified in this dedication shall be maintained in accordance with the final maintenance and funding program approved by the Executive Director in accordance with Special Condition 4.

#### **4. ACCESS AND HABITAT MANAGEMENT AND MAINTENANCE**

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall provide for the review and approval by the Executive Director a management and maintenance program for proposed public trail, habitat restoration and preservation areas, public facilities, associated structures and appurtenances for the foregoing and water quality management structures and associated appurtenances. The final program, which may be incorporated in whole or in part in the final habitat management plan, shall include the following:

1. IDENTIFY ALL ENTITIES RESPONSIBLE FOR MANAGEMENT AND MAINTENANCE. In general, the owner of the land shall maintain it until such time as any easement required to be offered by this permit is accepted or a fee dedication required by this permit is complete. Where an easement or a fee dedication is accepted by an entity in accordance with the terms and conditions of this permit, the holder of the easement or fee title shall be responsible for management and maintenance of the facilities within the easement or land area unless the arrangements between the original landowner and the fee or easement holder dictate that the original landowner shall retain all or part of said management and maintenance responsibility. All management and maintenance shall occur in accordance with the approved management and maintenance program.
2. IDENTIFICATION OF MANAGEMENT AND MAINTENANCE ACTIVITIES AND ASSOCIATED FUNDING PROGRAM. The management and maintenance program shall include identification of management and maintenance activities including, and funding program that will provide for the actual cost of:

- i. maintenance and periodic repair and replacement of park facilities, trails and associated appurtenances including, but not limited to, landscaping, trail routes and surfaces, fences, benches, signage and interpretive displays, and appropriate domestic pet controls and services and,
    - ii. on-going habitat protection, restoration and maintenance as detailed in approved Final Habitat Management Plan approved by the Executive Director pursuant to Special Condition 10, including regular exotic plant removal, repair and maintenance of interpretive signs, and funding of public outreach programs, including resident education; and
    - iii. maintenance of drainage systems, water quality management structures and other devices required to protect on-site habitat and ocean waters.
  3. **LEGAL AUTHORITY.** The program shall demonstrate the legal ability of the assigned entities to undertake the development and maintain said development in accordance with the requirements of this permit.
- B. The permittee shall undertake development in accordance with the approved final program. Any proposed changes to the approved final program shall be reported to the Executive Director. No changes to the approved final program shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**5. BURROWING OWL SURVEY AND MITIGATION PLANS REQUIREMENT**

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT,** the applicant shall submit to the Executive Director, for review and approval, a burrowing owl survey and mitigation plans consistent with the "Burrowing Owl Survey Protocol and Mitigation Guidelines", prepared by the California Burrowing Owl Consortium, dated April 1993 and the "Staff Report on Burrowing Owl Mitigation", prepared by the California Department of Fish and Game (DFG), Environmental Services Division, dated September 25, 1995. Prior to submittal to the Executive Director the burrowing owl survey plan shall be reviewed and approved by DFG. The survey and mitigation protocol and guidelines include avoidance of impacts during the nesting and breeding seasons and shall be included in the required plans and reflected in the Construction/Development Phasing Special Condition of this permit.
- B. The permittee shall undertake development in accordance with the approved final burrowing owl survey and mitigation plans. Any proposed changes to the approved burrowing owl survey and mitigation final plans shall be reported to the Executive Director. No changes shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**6. COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R'S), AND FINAL TRACT MAPS**

- A. Consistent with the applicant's proposal, the applicant shall establish covenants, conditions and restrictions (CC&R's), or an equivalent thereof, for the proposed residential lots to address ownership and management of all subdivision streets, roads, trails, parks, habitat restoration and preserve areas, environmentally sensitive habitat areas, fuel modification plan areas, common landscaped areas and water quality management plan facilities. The CC&R's shall reflect all applicable requirements of this coastal development permit, including but not limited to the limitations on the development of the park, trail and habitat restoration and preservation areas as proposed by the applicant and as conditioned by this permit.
- B. Subject to the review and approval of the Executive Director, the applicant shall, where feasible, consolidate proposed open space lots that are contiguous with one another and that are to be held by a common owner.
- C. All areas to be owned and/or managed by the homeowners association pursuant to Special Conditions 2 and 3 of this permit shall be shown as lettered lots on the revised vested tentative tract map (VTTM) 15460, subject to the review and approval of the Executive Director.
- D. As soon as a homeowner's association or similar entity comprised of the individual owners of the 349 proposed residential lots is created, the applicant shall transfer title to the lots described in Special Condition 2 to that entity.
- E. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, and prior to recordation of any CC&R's, or tract maps associated with the approved project, proposed versions of said CC & R's and tract maps shall be submitted to the Executive Director for review and approval. The Executive Director's review shall be for the purpose of ensuring compliance with the standard and special conditions of this coastal development permit, including ensuring that, pursuant to paragraph A of this condition, the CC&Rs also reflect the ongoing restrictions and obligations imposed by these conditions. The restriction on use of the land cited within the special conditions of this permit shall be identified on the Tract Map, where appropriate, as well as being placed in the CC & R's.
- F. Simultaneous with the recording of the final tract map(s) approved by the Executive Director, the permittee shall record the covenants, conditions and restrictions approved by the Executive Director, against the property. The applicant shall submit a recorded copy of the covenants, conditions and restrictions within 30 days of their recordation to the Executive Director. The CC & R's may not be removed or modified without approval of the Commission, or

its successor in interest, and the CC& R's shall indicate that restriction within their terms.

**7. CONSTRUCTION/DEVELOPMENT PHASING**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a revised, final construction/development phasing plan for review and approval by the Executive Director, which shall conform to the following:
1. All development, including removal of burrowing owl foraging habitat and grading, shall be consistent with the requirements of the Burrowing Owl Survey and Mitigation Plan Requirement Special Condition of this permit. No grubbing, grading or other development shall take place during raptor nesting season if raptors are nesting. Within 30 days of the initial removal of existing raptor foraging habitat consisting of non-native grassland/ruderal vegetation, or within additional time as granted by the Executive Director for good cause, the applicant shall initiate the Coastal Sage Scrub and Native Grassland Creation Program as approved pursuant to Special Condition 10 of this permit. The applicant shall carry out the restoration work in an expeditious manner in order to reestablish raptor foraging habitat in the affected area.
  2. Grading of the public trail shall occur during initial grading operations, which shall be carried out consistent with the provisions for the protection of the existing ESHA. The public trail shall be constructed concurrent with the construction of the main roads and streets of the subdivision. The public trail shall be completed and open for public use, including the installation of habitat protection fencing pursuant to the approved final habitat management plan and the installation of signage and interpretive displays consistent with the public access, recreation improvements and signage special condition of this permit, concurrently with the opening of the first model home for public viewing.
- B. The permittee shall undertake development in accordance with the approval final construction/development phasing plans. Any proposed changes to the approved final construction/development phasing plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**8. EROSION CONTROL PLAN**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for the review and approval of the Executive Director, a final Erosion Control Plan that conforms to the requirements of this permit, and

has been approved by the County of Orange. The Erosion Control Plan shall include written descriptions and site plans, as necessary, to describe the non-structural and structural erosion, sediment and polluted runoff controls to be used during project construction consistent with the requirements of this permit. The Erosion Control Plan shall incorporate the project Storm Water Pollution Prevention Plan and any additional construction phase erosion, sedimentation and polluted runoff control features of the project. The permittee shall undertake development in accordance with the approved final plan. In addition, the Erosion Control Plan shall include the following requirements:

1. The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.
2. The plan shall specify that should grading take place during the rainy season (October 16 – April 15) the permittee shall install or construct temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations (or, if grading begins during the dry season, prior to the onset of the rainy season) and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.
3. The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days during the dry season, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume. If grading or site preparation cease during the rainy season, the requirements under Condition 8.A.2 above must be maintained until the project is completed or the site restored to original conditions.
4. The plan shall include requirements for a third party inspection by a licensed water quality professional of construction phase erosion sedimentation and pollution control features of the project. Inspections shall determine if the project is in compliance with the Erosion Control Plan and report the results to the contractors for management of the erosion, sedimentation and pollution control features of the project.
  - a. All structural, construction phase BMPs shall be inspected, cleaned and repaired, as needed prior to the onset of the storm season, no earlier than August 1 and no later than October 1st of each year; after every



major storm event (greater than 0.75 inch of precipitation); and at least monthly throughout the construction phase.

- b. Annual reports containing data and analytical assessment of data, shall be submitted in July of each year to the Executive Director of the Commission and to the Santa Ana Regional Water Quality Control Board during the construction phase.

9. **CONSTRUCTION STAGING AREA AND FENCING**

- A. All construction plans and specifications for the project shall indicate that impacts to wetlands and environmentally sensitive habitats shall be avoided and that the California Coastal Commission has not authorized any impact to wetlands or other environmentally sensitive habitat. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit a final construction staging and fencing plan for the review and approval of the Executive Director which indicates that the construction in the construction zone, construction staging area(s) and construction corridor(s) shall avoid impacts to wetlands and other sensitive habitat consistent with this approval. The plan shall include the following requirements and elements:
  1. Wetlands and any environmentally sensitive habitats shall not be affected in any way, except as specifically authorized in this permit.
  2. Prior to commencement of construction, temporary barriers shall be placed at the limits of grading adjacent to wetlands and all ESHA. Solid physical barriers shall be used at the limits of grading adjacent to all ESHA. Barriers and other work area demarcations shall be inspected by a qualified biologist to assure that such barriers and/or demarcations are installed consistent with the requirements of this permit. All temporary barriers, staking and fencing shall be removed upon completion of construction.
  3. No grading, stockpiling or earth moving with heavy equipment shall occur within ESHA, wetlands or their designated buffers, except as noted in the final habitat management plan approved by the Executive Director pursuant to the following condition.
  4. No construction equipment shall be stored within any ESHA, wetlands or their buffers.
  5. The plan shall demonstrate that:
    - a. Construction equipment, materials or activity shall not occur outside the staging area and construction zone and corridors identified on the site plan required by this condition; and
    - b. Construction equipment, materials, or activity shall not be placed in any location that would result in impacts to wetlands or other sensitive habitat;
  6. The plan shall include, at a minimum, the following components:
    - a. A site plan that depicts:
      - i. limits of the staging area(s)
      - ii. construction corridor(s)
      - iii. construction site

- iv. location of construction fencing and temporary job trailers with respect to existing wetlands and sensitive habitat
  - v. Compliance with 'General Construction Responsibilities/ Protection of Water Quality' Special Condition of this coastal development permit.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**10. FINAL HABITAT MANAGEMENT PLAN**

- A. The permittee shall revise, implement and comply with all the habitat creation, restoration and preservation measures for the project site as approved by the Executive Director in the final Habitat Management Plan pursuant to this special condition.
- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit a revised, final habitat management plan for review and approval by the Executive Director. Prior to submittal of the final habitat management plan to the Executive Director, it shall be reviewed and approved by the California Department of Fish & Game and U.S. Fish & Wildlife Service. The final habitat management plan shall substantially conform to the habitat management plan dated January 17, 2005 as modified and specified below and by the requirements of the "Revised Tentative Tract Map and Plans" special condition of this permit. The final habitat management plan shall be modified as follows:
- 1. Eucalyptus ESHA Buffer Width -The Eucalyptus ESHA buffer between the Eucalyptus ESHA and the residential lots shall be a minimum width of 328 feet (100 meters) as measured from the northern and western edge of the defined Eucalyptus Grove ESHA, as depicted in Figure 1 of Exhibit 20. The Eucalyptus grove ESHA buffer shall be planted consistent with the approved final habitat management plan as modified by the special conditions of this permit.
  - 2. Eucalyptus ESHA Buffer Plant Palette – The proposed restricted coastal sage scrub and native grassland creation plant palette shall only be allowed within the fifty (50) feet closest to the rear lot lines of the residential lots. A revised plant palette shall be submitted for the remaining 278 feet of the 328 foot wide (100-meter) Eucalyptus ESHA Buffer. For areas on the relatively flat mesa top, the plant palette shall contain species appropriate to a native California grassland community in coastal Southern California. For areas on the relatively steep bluff faces, the plant palette shall contain species appropriate to coastal Southern California coastal sage scrub, coastal bluff scrub communities, or additional native California grassland vegetation.

3. Irrigation and Other Fuel Modification Activities Within the ESHA Buffer – Permanent, in ground irrigation shall be allowed within the Eucalyptus ESHA buffer area only within the 100 foot area closest to the rear lot lines of the proposed residential lots. Within the 50-foot area closest to the rear lot lines of the proposed residential lots, periodic mowing (every 3 to 5 years) may be allowed in the native grassland. If needed for initial plant establishment, temporary, above ground irrigation (3-5 years) may be allowed within the Eucalyptus ESHA buffer area beyond 50 feet of the residential lot lines. No other fuel modification activities may be allowed to take place within the 328 foot 100-meter Eucalyptus ESHA buffer.
4. Burrowing Owl ESHA Buffer - The Burrowing Owl ESHA as depicted on Figure 1 Exhibit 20, shall be surrounded by a vegetated buffer measuring no less than 164 feet (50 meters) . The plant palette for the Burrowing Owl ESHA buffer shall be revised to contain species appropriate to a native California grassland community in coastal Southern California areas on the relatively flat mesa top, and for areas on the relatively steep bluff faces, the plant palette shall contain species appropriate to coastal Southern California coastal sage scrub, coastal bluff scrub communities, or additional native California grassland vegetation. The buffer area shall be planted consistent with the plant palette approved herein. Only the 50 feet closest to the rear yards of the residential lots shall be permanently irrigated. Also within 100 feet of the residential lot lines, periodic mowing (every 3 to 5 years) may be allowed if needed for initial plant establishment. Temporary, above ground irrigation (3-5 years) may be allowed within the remainder of the Burrowing Owl ESHA buffer area beyond 50 feet of the residential lot lines if needed for plant establishment. No other fuel modification activities may be allowed to take place within the 164 foot (50 meter) Burrowing Owl ESHA buffer. Only minor grading associated with the construction of the approved trail, approved water quality treatment facilities or the removal of existing roads for habitat creation and restoration purposes shall be allowed.
5. Grading Adjacent to Eucalyptus ESHA - There shall be no grading within 500 feet any occupied nest within of the Eucalyptus ESHA during the breeding season (considered to be from February 15 through August 31). If grading occurs within 500 feet of the Eucalyptus ESHA during the breeding season the following measures must be taken:
  - a. The permittee shall staff a qualified monitoring biologist on-site during all grading and any other project-related work using mechanized equipment. The biologist must be knowledgeable of raptor biology and ecology and shall ensure that no grading or other activities that would disturb breeding raptors are permitted if any nests are occupied within 500 feet of grading or other such activity.
  - b. Prior to initiating clearing and/or grading during the raptor breeding season, the biological monitor shall 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 raptors. The 500 ft. buffer shall be marked in the field with temporary fencing and maintained throughout the breeding season. The biologist shall meet as needed with the construction manager (e.g., when new crews are employed) to discuss implementation of these measures.

6. 3.2-acre Southern Tarplant and Seasonal Pond Environmental Protection Area -The habitat management plan shall be modified to include the proposed 3.2-acre Southern Tarplant and Seasonal Pond Environmental Protection Area as proposed by the applicant. The plan shall include any needed minor grading, including staging, staking, fencing and timing of activities, identification of and non-mechanical methods of removal of any existing weeds and undesirable plants, a plant palette, planting methods including any needed temporary above ground irrigation and initial and long-term monitoring and maintenance of the habitat preserve area. No in ground permanent irrigation shall be allowed in the preserve. The plan shall include a 100-foot buffer around the Los Patos wetland, planted with appropriate plants from the approved plant palette and a 50-foot buffer around the Southern Tarplant, planted with appropriate plants from the approved plant palette and shall be fenced/vegetated on the outer edges to prevent access to the preserve area by domestic pets and humans. The plan shall ensure that no development, with the exception of the removal by hand of any undesirable plants, as approved by the Executive Director, shall occur within the Los Patos wetlands. Further, the removal or relocation of any Southern Tarplant shall be prohibited. The plan shall include a maintenance and monitoring plan for the preserve area. The initial monitoring of the preserve area shall be for a period of no less than five years and shall be in substantial conformance with the monitoring plan, as approved by the Executive Director, for the Coastal Sage Scrub and Native Grassland Creation area. The Southern Tarplant and Seasonal Pond Environmental Protection Area shall be monitored and maintained pursuant to a long-term monitoring and maintenance plan to be approved by the Executive Director as required by this special condition. The long-term monitoring and maintenance plan shall ensure that the preserve area will be monitored at least annually after the initial five-year monitoring period and that all plantings are maintained in good growing condition. The Southern Tarplant and Seasonal Pond Environmental Protection Area shall also be subject to the perpetual management and maintenance provisions specified below. The homeowners association shall bear responsibility for the management of the Southern Tarplant and Seasonal Pond Environmental Protection Area as approved in this special condition and the other applicable special conditions of this permit.
7. The permittee shall submit a final report prepared by the biological monitor to the Executive Director, for review and approval, within 60 days of project completion that includes: as-built construction drawings with an overlay of wetlands and coastal sage scrub that were avoided, photographs of CSS

and wetland areas avoided, and other relevant summary information documenting that development, including habitat restoration and preservation measures are in general compliance with all conditions of this permit.

8. The permittee shall install protective fencing or barriers along any interface with developed areas and/or use other measures, designed in consultation with the Resources Agencies and approved by the Executive Director, to deter human and pet entrance into all restored and preserved wetland, CSS and ESHA buffer areas and the area of the lower bench to be sold to the State of California. Plans for fencing and/or other preventative measures shall be submitted to the Executive Director for review approval prior to the issuance of the coastal development permit in accordance with the 'Construction Staging Area and Fencing' special condition of this permit.
9. The permittee shall implement a perpetual management, maintenance and monitoring plan for all the habitat management plan areas. The plan shall include the monitoring activities of the final habitat management plan as approved by the Executive Director and shall also include a perpetual management, maintenance and monitoring plan beyond that specified in the "Conceptual Coastal Sage Scrub and Native Grassland Creation and Monitoring Plan for ESHA Buffer Associated with Brightwater Project, Orange County, CA," prepared by Glen Lukos and Associates, dated January 17, 2005. The permittee shall also establish a non-wasting endowment in favor of the State of California, for an amount determined in consultation with the Resources Agencies and approved by the Executive Director, to secure the ongoing funding for the perpetual management, maintenance and monitoring of the habitat management plan area by an agency, non-profit organization, or other entity approved by the Executive Director. The amount of the non-wasting endowment shall be based on an analysis of the amount needed to maintain and monitor the habitat creation and preservation areas as described above and approved in the final habitat management plan of this permit. The endowment shall be funded by an initial contribution by the developer as well as annual payments assessed on each dwelling unit (adjusted annually consistent with the Consumer Price Index) for each residential unit. Until a qualified management entity, subject to the review and approval of the Executive Director, is identified, the permittee shall be responsible for such management.
10. The permittee shall develop a resident education program in conjunction with the Orange County Animal Control office. The program shall advise residents of the potential impacts to sensitive plant and animal species and the potential penalties for taking (i.e. disturbing or harming) such species. The program shall include, but not be limited to, information pamphlets and signage included as part of the interpretive program within the habitat management plan area. Informational pamphlets shall be distributed to all residences on a regular basis (e.g. once a year). At a minimum, the program shall 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 to the listed and sensitive species, penalties for violations of Federal and State laws, reporting requirements, the importance of the presence of large predators such as the coyote in maintaining the habitat, and project features designed to reduce the impacts to these species and promote the species continued successful occupation of the preserved areas.
11. Restoration activities, such as weed control and removal and planting and seeding shall not take place within 500 feet of the Eucalyptus ESHA during the breeding season where raptors are present unless the permittee provides a biological monitor who will ensure no impacts to raptors occur and the permittee must obtain prior written approval from the Resources Agencies. Prior to initiation of such activities, the permittee shall submit written evidence of Resources Agency approval for the review and approval of the Executive Director.
  12. Appropriate controls and services that prohibit the entry of domesticated animals into habitat restoration areas shall be identified and implemented. In addition, appropriate controls and services shall be identified and implemented for areas where domestic animals, only on leashes, may be permitted, such as trails.
- C. The permittee shall undertake development in accordance with the approved final plans. As in all cases, this requirement continues to apply to successors in interest, including purchasers of individual residential lots, and their ongoing management of their property. Any proposed changes to the approved final plans or phases of construction shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

## **11. LANDSCAPE REQUIREMENTS**

- A. All areas disturbed and/or denuded by the development and not approved for hardscape or other development that is incompatible with re-vegetation shall be re-vegetated and maintained to protect habitat and to prevent erosion into habitat areas, wetlands, and coastal waters. Such re-vegetation shall occur in accordance with the requirements of the special conditions of this permit. All required plantings shall be maintained in good growing condition throughout the life of the project, and whenever necessary, shall be replaced with new plant materials that conform to the requirements of the special conditions of this permit.
- B. All landscaping on the private residential lots within VTTM 15460, within the proposed local parks and along the streets and roads of the subdivision, (including temporary erosion control and final landscaping) for the entire

development covered by this permit shall be of plants native to coastal Orange County and appropriate to the natural habitat type or non-native, non-invasive, low water use plants on the "Approved Plant List for Non-Habitat/Non-Buffer Areas" to be approved by the Executive Director pursuant to this special condition. No plant species listed as problematic and/or invasive by the California Native Plant Society, California Exotic Pest Plant Council, or as may be identified from time to time by the State of California, or any plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized anywhere within the proposed development area, including the landscaping within the private residential lots of VTTM 15460, along the streets and roads and the park areas. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, subject to the review and approval of the Executive Director, a plant list for non-habitat/non-buffer areas that complies with the above criteria. . Once approved by the Executive Director this list shall be known as the "Approved Plant List for Non-Habitat/Non-Buffer Area" and shall be recorded in the covenants, conditions and restrictions of the homeowners association pursuant to Special Condition 6 of this permit. Only those plants on the Approved Plant List for Non-Habitat/Non-Buffer Areas" shall be planted and allowed to grow within the non-habitat/non-buffer areas of the project.

- B. All irrigation, both temporary and permanent, shall be prohibited in wetlands and the Eucalyptus ESHA, Burrowing Owl ESHA, and Southern Tarplant ESHA. Permanent, in-ground irrigation may be allowed on private residential lots, common area non-habitat non-buffer areas, and within the fifty (50) feet closest to the rear yards of the residential lots that front the Eucalyptus ESHA buffer, if required by Orange County Fire Authority (OCFA), and as approved in the final Habitat Management Plan. In all other areas, only temporary, above ground irrigation may be allowed to establish the plantings, where needed, and if approved in this permit. Common area irrigation must further comply with the following provision:

Irrigation allowed in the non-habitat/non-buffer areas shall have automatic rain gauges connected to irrigation controllers and shall be installed and maintained by the homeowners association in the common areas. The rain gauges shall monitor rainfall volume and interrupt watering schedules in response to site-specific rainfall conditions. Rain gauges shall be located adjacent to controllers to facilitate monitoring by maintenance personnel. Use of drip and efficient low-flow irrigation emitters to minimize irrigation requirements and over-irrigation shall also be used where appropriate.

- D. For visual purposes, prior to the issuance of the coastal development permit, a visual enhancement plan shall be submitted for review and approval by the Executive Director along with written evidence of review and approval from the

Manager, PFRD/HBP Program Management and Coordination, in consultation with the Manager, Environmental and Project Planning Division of the County of Orange, that is designed to soften, through selective placement of primarily native vegetation, the visual impact of large expanses of wall or roof within residentially developed portions of the site that would be visible from significant vantage points along the proposed trail and parks and from off-site publicly owned open space and recreation areas and public trails. Such plantings shall comply with fuel modification requirements of the relevant fire authority. The landowner shall install vegetation for visual softening within 180 days of occupancy of each applicable residence in accordance with the CC&Rs for the proposed residences.

- E. Temporary Erosion Control Measures. See 'Erosion Control' Condition.
- F. Timing of Final Landscaping. Final landscaping guidelines for all areas outside the habitat management plan area shall be completed and submitted for review and approval by the Executive Director prior to the issuance of the coastal development permit. The guidelines shall state that all common area landscaping shall be installed prior to the issuance of the first certificate of use and occupancy and shall have a licensed landscape architect or licensed landscape contractor certify that it was installed in accordance with the approved plan. The guidelines shall also state that landscaping of each residential lot shall be completed prior to the issuance of the certificates of use and occupancy for the individual residential lot. The guidelines shall be consistent with the requirements of this coastal development. The timing of re-vegetation efforts within the habitat restoration areas identified in the revised final Habitat Management Plan shall be as indicated in the revised final Habitat Management Plan approved by the Executive Director.
- G. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit landscape palette lists to be incorporated into the landscaping guidelines detailed above subject to the review and approval of the Executive Director, that identify: 1) the native plant species that may be planted in the development; 2) a list of the non-native, non-invasive common garden plant species that may be planted on the residential lots; 3) the non-native, non-invasive turf that may be planted within approved turf areas in the two local parks, and 4) the invasive plant species that are prohibited from use anywhere within the development. The landscape palette for the development shall be consistent with the Approved Plant List for Non-Habitat/Non-Buffer Areas as reviewed and approved by the Executive Director. These lists shall remain available for consultation and shall be recorded in the covenants, conditions and restrictions as required by Special Condition 6. Additions to or deletions from these lists may be made by the Executive Director of the California Coastal Commission, in consultation with the project's restoration ecologist and the resource agencies. No deviations from the list shall occur in the plantings on

the site without an amendment to this permit or a new coastal development permit unless the Executive Director determines that no amendment or new permit is required.

- H. PRIOR TO SUBMITTAL OF FINAL LANDSCAPE PALETTE LISTS, LANDSCAPE PLANS, AND TEMPORARY EROSION CONTROL PLANS, the permittee shall obtain the review and approval of those lists and plans by the California Department of Fish and Game, the United States Fish and Wildlife Service and the Orange County Fire Authority. Written evidence of the required reviews and approvals shall be submitted with the lists and plans submitted to the Executive Director.
- I. CONCURRENT WITH SUBMITTAL OF ALL PLANS IDENTIFYING LANDSCAPING, the permittee shall provide an analysis of each plan submitted, prepared by a qualified biologist, which documents that the landscaping complies with all of the landscaping and habitat management requirements of this permit.
- J. Monitoring. Five years from the date of the completion of the installation of landscaping as required in these special conditions, the permittee shall submit, for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed landscape architect or qualified resource specialist, that certifies the on-site landscaping is in conformance with the requirements of the special conditions of this permit and the landscape plans approved pursuant to the special conditions of this permit. The monitoring report shall include photographic documentation of plant species and plant coverage. If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the permittee, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed landscape architect or a qualified resource specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The permittee or successor in interest shall implement the supplemental landscaping plan approved by the Executive Director and/or seek an amendment to this permit if required by the Executive Director.

## **12. REVISED FUEL MODIFICATION PLAN REQUIREMENTS**

- A. All fuel modification shall be consistent with the requirements of the final Habitat Management Plan approved by the Executive Director pursuant to Special Condition 10 and the final fuel management plan approved by the Executive Director pursuant to subpart B of this condition, which plan is conceptually described in the "Conceptual Plan OCFA Protection Zones and Program

Description" for the Brightwater development project, prepared by FORMA, dated March 10, 2005. Proposed and future residential and appurtenance structures shall be set back a sufficient distance from proposed habitat restoration and preservation areas such that there will be no vegetation pruning, thinning or clearance, mowing or permanent irrigation required by the relevant fire authority (e.g. Orange County Fire Authority) within the 328 feet (100 meters) Eucalyptus ESHA buffer, the 100 foot (30.5 meters) wetland buffers, the 164 feet (50 meters) burrowing owl ESHA buffers, or the 50 foot (15.2 meters) Southern Tarplant ESHA buffer, other than as specifically allowed by the final Habitat Management Plan approved by Special Condition 10 of this permit. Prior to submittal of the final fuel modification plan to the Executive Director, but following review and approval of the final fuel modification plan and the final habitat management plan by the Orange County Fire Authority (OCFA) pursuant to Special Condition 10, the applicant shall submit the final fuel modification plan to the California Department of Fish and Game (DFG) for their review and written approval. This requirement shall not result in any reduction of restored and preserved habitat area or public access opportunities.

- B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit a final fuel management plan for the development for review and approval by the Executive Director, which plan shall be consistent with the requirements outlined above and in the special conditions of this permit. The final fuel management plan required after approval by the Executive Director, shall include a statement that any future changes to the plan, including any changes required by the relevant fire authority or other resource agencies, shall be reported to the Executive Director of the Coastal Commission, and shall require an amendment to this permit or a new coastal development permit prior to implementation of those changes unless the Executive Director of the Coastal Commission determines that no amendment or new permit is required.
- C. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
- D. For purposes of this permit, this condition shall serve as notification to present and future property owners that certain structures and areas of land are subject to special fuel treatment requirements that are specified in the final fuel management plan approved by the Orange County Fire Authority and the Executive Director of the Commission. Among those requirements is a requirement that residential structures facing upon native restoration or open space areas incorporate building construction features consistent with Orange County Fire Authority guidelines for construction of structures within special fire hazard areas. Furthermore, there is a prohibition on the placement of

combustible materials in the rear yards of the residential lots that abut open space areas. Proposed and future development shall conform to the requirements of the approved final fuel management plan.

**13. LIGHTING**

- A. All lighting within the development shall be directed and shielded so that light is directed away from wetlands, and other habitat and buffer areas. Floodlamp shielding and/or sodium bulbs shall be used in developed areas to reduce the amount of stray lighting into native restoration and preservation areas. Furthermore, no skyward-casting lighting shall be used. The lowest intensity lighting shall be used that is appropriate to the intended use of the lighting. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for the review and approval of the Executive Director, a lighting plan to protect the wetlands, and other habitat and buffer areas from light generated by the project. The lighting plan to be submitted to the Executive Director shall be accompanied by an analysis of the lighting plan prepared by a qualified biologist which documents that it is effective at preventing lighting impacts upon adjacent wetlands and environmentally sensitive habitat and buffer areas.
- B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**14. WALLS, FENCES, GATES, SAFETY DEVICES AND BOUNDARIES**

- A. Fences, gates, safety devices and boundary treatments within or controlling access to environmentally sensitive habitat areas (ESHA) shall be designed to allow the free ingress, egress and traversal of the habitat areas of the site by wildlife, including the coyote. Where the backyards of residences abut habitat buffer areas, there shall be walls, fences, gates, safety devices and boundary treatments, as necessary, to contain domestic animals within the residential development and along the approved trails and exclude such animals from sensitive habitat. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit final revised plans showing the location, design, height and materials of all walls, fences, gates, safety devices and boundary treatments for the review and approval of the Executive Director. Said plans shall be accompanied by an analysis of the wall, fence, gate and boundary treatment plan prepared by a qualified biologist that documents that the modified walls, fences, gates and safety barriers and boundary treatments will minimize the uncontrolled entry of domesticated animals into wetlands and environmentally sensitive habitat and buffer areas and allow for free ingress,



egress and traversal of the wetland and habitat and buffer areas of the site by wildlife. The plans shall have received prior review and approval by the County of Orange, the California Department of Fish and Game and the United States Fish and Wildlife Service.

- B. The permittee shall undertake development in accordance with the approval final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**15. PUBLIC ACCESS AND RECREATION REQUIREMENTS AND IMPROVEMENTS**

**A. Public Access Requirements**

**1. Streets, Roads and Public Parking**

All streets, roads and parking shall be provided as described on the revised Brightwater project Development Plan, dated February 18, 2005. All publicly and privately maintained streets, roads and public parking areas identified on the above Development Plan shall be for public street purposes including, but not limited to, pedestrian, bicycle and vehicular access. Parking shall be provided as described in the applicant's January 21, 2005 coastal development permit application submittal. All streets, roads and public parking areas shall be open for use by the general public 24 hours per day, with the exception of standard limited parking restrictions for street sweeping/maintenance purposes. Long term or permanent physical obstruction of streets, roads and public parking areas shall be prohibited. All public entry controls (e.g. gates, gate/guard houses, guards, signage, etc.) and restrictions on use by the general public (e.g. preferential parking districts, resident-only parking periods/permits, etc.) associated with any streets or parking areas shall be prohibited.

**2. Public Trail**

No development, as defined in Section 30106 of the Coastal Act, shall occur within the public trail corridor as proposed in the amended application submittal of February 18, 2005 and March 4, 2005 as approved by the Executive Director (which land is generally, but not fully, depicted in Exhibit 12) and as described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for the following development: grading and construction necessary to construct the trails and appurtenances (e.g. signs, interpretive displays, benches, trash receptacles, protective fencing), vegetation removal and planting, drainage devices, erosion control and repair, maintenance and repair activities pursuant to and in conjunction with the management and maintenance program detailed in Special Condition 4 and as

required below. Development that diminishes permanent public access shall be prohibited. As proposed, the public pedestrian trail shall have a decomposed granite surface, shall be six feet in width and shall be located within twenty-five feet of the southern lot lines of the proposed residential lots. The public access trail shall be open to the general public for passive recreational use.

The lands identified in this restriction shall be maintained in accordance with the final maintenance and funding program approved by the Executive Director in accordance with Special Condition 4.

### **3. Local Parks**

The two local parks shown on the revised Brightwater project Development Plan dated February 18, 2005 (which land is generally, but not fully, depicted on Exhibit 12), shall be open to the general public and maintained for passive park use. No development, as defined in Section 30106 of the Coastal Act, shall occur within the local parks as identified, described and depicted in an exhibit attached to the Notice of Intent to Issue Permit (NOI) that the Executive Director issues for this permit except for the following development: grading and construction necessary to construct the parks, vegetation removal and planting, drainage devices, erosion control and repair, maintenance and repair activities pursuant to and in conjunction with the management and maintenance of the parks.

- B. The applicant shall ensure the construction of the public access and passive recreation improvements for park and trail purposes as described in the project description submitted by the applicant; in the January 21, 2005 submittal, as amended on February 18, and March 4, 2005, and as modified by the special conditions of this permit. All public access and passive recreation improvements for park and trail purposes shall be completed and open for use by the general public in accordance with the final construction phasing plan approved by the Executive Director in accordance with the 'Construction/Development Phasing' special condition of this permit. Furthermore, the facilities identified in this condition shall be maintained in accordance with the final maintenance and funding program approved by the Executive Director in accordance with the 'Access and Habitat Management and Maintenance' special condition of this permit.
- C. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit revised, final, detailed plans of the public access and recreation improvements for park and trail purposes for review and approval by the Executive Director. All facilities constructed shall be sited and designed to minimize disturbance to adjacent habitat areas and to minimize the obstruction of public views. All facilities shall conform to the final habitat management plan approved by the Executive Director pursuant to condition 10. Plans shall identify all structures including location, dimensions, materials and colors, and use as well as sign and interpretive display text and graphics, size and orientation. All plans shall be of

sufficient scale and detail to verify the location, size and content of all signage, and the location and orientation, size, materials and use of structures during a physical inspection of the premises. Plans shall be consistent with the modifications required in the "Revised Tentative Tract Map and Development Plans" special condition of this permit. The final plans shall also comply with the following:

1. Public Trail Plan: The final plans submitted for review and approval to the Executive Director shall include detailed trail improvement plans. The detailed final trail improvement plans submitted shall be in substantial conformance with the February 18, 2005 plans identified above and as modified by the conditions of this permit. Said plan(s) shall include trail alignment, width, surface and materials; designated parking; designated overlooks; recreational appurtenances such as benches, refuse containers; fencing between the trail and habitat buffer areas; erosion control and footpath control plantings (such as cactus adjacent to sensitive areas).
  2. Sign Plan: The final plans submitted for review and approval to the Executive Director shall include a detailed signage plan that directs the public to the public trail and public passive recreation opportunities on the project site. Signs shall invite and encourage public use of access opportunities and shall identify and direct the public to their locations, including the three proposed paseos leading to the public trail. Signage shall be visible from the Warner Avenue/Los Patos intersection area and Warner Avenue/Bolsa Chica Street intersection area and from internal circulation roads and parks. Signage shall include public facility identification monuments (e.g. public park name); community identification monuments (e.g. Brightwater Community); facility identification/directional monuments (e.g. location of amenities); informational signage and circulation; interpretive signs, and roadways signs. Signs shall also identify and explain key biological habitat preservation areas (Eucalyptus grove, burrowing owl and Southern Tarplant ESHAs and the two freshwater wetlands) and the significant prehistoric and historic cultural resources of the site and Bolsa Chica area, and identify restricted areas. Prior to submittal to the Executive Director, the final interpretive displays and interpretive signage shall be reviewed by and comments solicited from the interested agencies and groups as specified in the "Revised Tentative Tract Map and Development Plans" special condition and submitted to the Executive Director. Signs and displays not explicitly permitted in this document shall require an amendment to this permit unless the Executive Director determines that no amendment is required.
- D. The revised plans shall, prior to submittal to the Executive Director, be reviewed and approved by the County of Orange Department of Beaches, Harbors and Parks after receipt of comments from the interested agencies and groups specified above.

- E. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.
- F. PRIOR TO ISSUANCE BY THE EXECUTIVE DIRECTOR OF THE NOI FOR THIS PERMIT, the applicant shall submit for the review and approval of the Executive Director, and upon such approval, for attachment as an Exhibit to the NOI, formal legal descriptions and graphic depictions of the portions of the subject property affected by this condition, as generally described above and shown on Exhibit 12a attached to the findings in support of approval of this permit.

**16. WATER QUALITY**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, a final revised Water Quality Management Plan (WQMP) for the post-construction project site. The WQMP shall be prepared by a licensed water quality professional and shall include project plans, hydrologic calculations, and details of the structural and non-structural Best Management Practices (BMPs) that shall be included in the project.

The final plan shall be reviewed by the consulting engineering geologist to ensure conformance with geotechnical recommendations. The final plan shall demonstrate substantial conformance with the Water Quality Management Plan (WQMP) for Brightwater Unincorporated County of Orange, CA Vesting Tentative Tract Map 15460, dated (revised) January 21, 2005, prepared by The Keith Companies. The final plan shall also include detailed plans for the proposed rip-rap erosion control device proposed below the 66" stormdrain outlet. The rip-rap shall be modified as required in special condition 17 and shall be reviewed and approved by the State Lands Commission (SLC) for that portion of the development that lies on land owned by SLC. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

**1. Best Management Practice Specifications**

- a. Site Design, Source Control, and Treatment Control BMPs shall be designed to reduce, to the maximum extent practicable, the volume, velocity and pollutant load of storm water and nuisance flow leaving the developed site.
- b. Maintain, to the maximum extent practicable, pre-development peak runoff rates and average volume of runoff;

- c. Post-construction structural BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter the amount of storm water 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.
- d. The structural BMPs shall be constructed prior to or concurrent with the construction of infrastructure associated with the development within Tentative Tract 15460. Prior to the occupancy of residential structures approved by this permit, the structural BMPs proposed to service those structures and associated support facilities shall be constructed and fully functional in accordance with the final WQMP approved by the Executive Director.
- e. All structural and non-structural BMPs shall be maintained in a functional condition throughout the life of the approved development to ensure the water quality special conditions are achieved. Maintenance activity shall be performed according to the specifications in Water Quality Management Plan (WQMP) for Brightwater Unincorporated County of Orange, CA Vesting Tentative Tract Map 15460, dated (revised) January 21, 2005, prepared by The Keith Companies. At a minimum, maintenance shall include the following:
  - i. All structural BMPs shall be inspected, cleaned and repaired, as needed prior to the onset of the storm season, no earlier than August 1st or later than October 1st of each year; after every major storm event (greater than 0.75 inch of precipitation); and at least once during the dry season;
  - ii. Should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system and restoration of the eroded area. Should repairs or restoration become necessary, prior to commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work. If the Executive Director determines that an amendment or a new permit is required to authorize the work, no such work shall begin or be undertaken until it is approved in accordance with the process outlined by the Executive Director;
- f. Impervious surfaces, especially directly connected impervious areas, shall be minimized, and alternative types of pervious pavement shall be used where feasible;
- g. Irrigation and the use of fertilizers and other landscaping chemicals shall be minimized;

- h. Trash, recycling and other waste containers, as necessary, shall be provided in common areas throughout the development. All waste containers anywhere within the development shall be covered, watertight, and designed to resist scavenging animals.
  - i. Runoff from all roofs, roads and parking areas shall be collected and directed through a system of structural BMPs including vegetated areas and/or gravel filter strips or other vegetated or media filter devices. The system of BMPs shall be designed to 1) trap sediment, particulates and other solids and 2) remove or mitigate contaminants through infiltration, filtration and/or biological uptake. The drainage system shall also be designed to convey and discharge runoff from the developed site in a non-erosive manner;
  - j. Debris and other water pollutants removed from structural BMP(s) during clean-out shall be contained and disposed of in a proper manner;
  - k. Storm drain stenciling ("No Dumping, Drains to Ocean" or equivalent phrase) shall occur at all storm drain inlets in the development.
  - l. Informational signs around the residential development for homeowners and the public about urban runoff and the BMPs used on-site shall be provided at trailheads, and at centralized locations near storm drain inlets.
2. The applicant shall provide in the Final Water Quality Management Plan a description of the design of both the underground media filter system and the catch basin media filters, including the basis for selection of filter media, the expected performance of the media filters, the management, operation and maintenance of the media filter systems and contingency plans if the media filters do not meet performance expectations. The Final WQMP shall be submitted to the Executive Director for approval. 3 The WQMP shall include diversion to the sanitary sewer for dry weather flows, including dry weather between rainstorms during the rainy season. In the event that the applicant cannot secure a long-term (life of the project) agreement with the local sanitary district to accept the dry weather flows, then efficient irrigation including smart sprinkler controllers shall be installed on all landscaped areas of the development.
3. The applicable covenants, conditions and restrictions (CC&R's) shall require that all development be carried out in accordance with the Water Quality Management Plan approved by the Executive Director.

**B. Water Quality Monitoring Plan**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, a final revised Water Quality Monitoring Plan, designed to evaluate the effectiveness of the project structural BMPs (both the underground and catch basin media filters) and it shall include a monitoring point at the outlet of the BMPs and prior to the effluent mixing with other runoff or receiving waters.



1. Water quality monitoring for the Brightwater Development shall characterize the effectiveness of project structural BMPs (both the underground and catch basin media filters) during at least 3 storms per year over a three year period.
    - a. The monitoring program shall be designed to determine if the two major structural BMPs are performing at least as well as indicated in the WQMP and to demonstrate that the filters are protecting coastal water quality to maximum extent practical at the time of construction.
  2. The Water Quality Monitoring Plan shall document how the sampling procedures are designed to address the objectives above, including the selection of sampling procedures, the frequency of sampling and sampling locations. The Water Quality Monitoring Plan shall include a map of the proposed sampling locations, methods of analysis and expected reporting limits.
  3. Baseline water quality data of the pre-development conditions of the constituents that will be monitored in the Stormwater Quality Monitoring Plan shall be collected.
  4. Post-development monitoring shall be conducted for a minimum period of three (3) years, following completion of development approved by this permit. Annual reports containing data and analytical assessment of data, shall be submitted to the Executive Director of the Commission and to the Santa Ana Regional Water Quality Control Board for three (3) years after all construction approved by this permit has been completed.
- C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**17. REVISED TENTATIVE TRACT MAP AND PLANS**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for the review and approval of the Executive Director, revised tentative tract map and final development plans, approved by the County of Orange, which conform with the requirements of the special conditions of this permit and indicate the final layout of all development including but not limited to lots, grading, streets, utilities and easements, infrastructure, water quality management system, trails, park and recreation facilities, signs, interpretive amenities, habitat restoration, landscaping, and residential and public facilities.

The revised tentative tract map and final development plans shall be modified to include, but not be limited to:

1. Reconfiguration of proposed subdivision such that no separate legal parcel is created on the lower bench of the Bolsa Chica Mesa. The proposed 11.8-acre residual portion of the existing Parcel 2 shown on VTTM 15460 shall be connected to an adjacent parcel that will remain in VTTM 15460. If the developer sells the remaining portion of the lower bench to an entity different from the entity to which the 11.8 acre portion of Parcel 2 is to be sold, a new coastal development permit for a lot line adjustment would be necessary to split off the 11.8 acre portion of the parcel.
2. Revision of the residential lot lines such that the Eucalyptus grove ESHA buffer is a minimum of 328 feet (100 meters) in width as measured from the northern and western boundaries of the Eucalyptus grove ESHA. Revision of the burrowing owl ESHA buffer such that it is a minimum of 164 feet (50 meters) in width as measured from the outer edge of the burrowing owl ESHA, as depicted by the applicant on Exhibit 3.
3. Revised public passive recreational signage and interpretive display plans to include interpretive information concerning the area's prehistoric and historic use by Native Americans, including but not limited to its use in Cogged Stone manufacturing and distribution, and archaeoastronomy, and ORA-83's general location and eligibility as a State and National Historic Site due to this significance. The interpretive information must also indicate the presence of the house pits and other significant artifacts that were recovered at ORA-83 and the location of the curation facility where the artifacts may be viewed. The applicant shall submit a detailed signage and interpretive plan including the location and orientation, size, materials, and text of all signs and interpretive displays, consistent with the requirements of the "Public Access and Recreation Improvements and Signage" special condition of this permit. Prior to submittal of the signage and interpretive plan, the plan shall be reviewed by the County of Orange, Department of Beaches Harbors and Parks, the California Department of Parks and Recreation, Office of Historic Preservation, the Native American Heritage Commission, and the Native American group(s) with cultural ties to the area as determined by the Native American Heritage Commission. The applicant shall submit written evidence of submittal of the plan to the named agencies/groups and copies of any comments from the same. The review period shall be no less than thirty days.
4. Revisions to the proposed rip-rap structure located below the proposed 66-inch stormdrain outlet located on State Lands Commission (SLC) property in the Isolated Pocket Lowland. The rip-rap structure shall be revised such that it is primarily aligned in an east-west "bowl" design, along the existing dirt road below the discharge point, in order to disperse the storm flow over greater spillover area. The revised rip-rap plan shall be submitted to the SLC for review and written approval prior to submittal to the Executive Director.

5. Submittal of an off-site raptor foraging habitat mitigation plan providing 0.5 acres of native or non-native grasslands for each acre of existing non-native grassland loss on the project site not being planted in native grassland pursuant to the approved final Habitat Management Plan required in Special Condition 10 of this permit. The off-site raptor foraging habitat mitigation plan shall include a monitoring and maintenance plan shall be maintained as mitigation for the life of the project being approved by this coastal permit. No credit shall be given for any native grassland created or preserved on-site that is subject to any fuel modification. The off-site raptor foraging habitat mitigation plan shall be submitted to DFG for their review and approval prior to submittal to the Executive Director. The off-site raptor foraging habitat mitigation area must be owned in fee by the permittee or the permittee must own an easement over the off-site mitigation area for habitat conservation purposes.

B. The permittee shall undertake development in accordance with the final tract map and development plans, as approved by the Executive Director. Any proposed changes to the approved final tract map or plans shall be reported to the Executive Director. No changes to the approved final plans or tract map shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

18. **CONFORMANCE OF DESIGN AND CONSTRUCTION PLANS TO  
GEOTECHNICAL REPORT**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, quantitative slope stability analyses for the revised grading plan submitted with the current Brightwater development plan. Slope stability analyses, using shear strength parameters supported by direct shear tests undertaken on relatively undisturbed samples collected at the project site, shall be provided for all natural and artificial cut and fill slopes steeper than 2:1 (horizontal to vertical). Recommendations to ensure surficial stability shall also be included.
- B. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in AMEC Earth and Environmental, Inc. 2001, "Addendum geotechnical review, revised tract map, vesting tentative tract no. 15460, Brightwater Development Project, Upper Bolsa Chica Mesa, Orange County, California", 29 p. geotechnical report dated 26 September 2001 and signed by D. Dahncke (GE 2279) and S. T. Kerwin (CEG 1267); AMEC Earth and Environmental, Inc. 1997, "Geotechnical evaluation report, Phase I rough grading plans, Vesting tentative tract 15460, Bolsa Chica Mesa, South of Warner/Los Patos Avenues, Orange

County, California", 60 p. geotechnical report submitted to the Koll Real Estate Group dated 1 December 1997 and signed by D. Dahncke (GE 2279) and S. T. Kerwin (CEG 1267); and Woodward-Clyde Consultants, 1987, "Evaluation of hazards due to fault surface rupture at Bolsa Chica Mesa and in the Bolsa Chica lowland, Orange County, California", report for Signal Landmark, Inc. and Orange County Environmental Management Agency dated October 1987 and signed by Woodward-Clyde Consultants, as modified as required by additional slope stability analyses for the revised project as required in paragraph A above. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluations approved by the California Coastal Commission for the project site.

- C. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**19. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY**

By acceptance of this permit, the permittee acknowledges and agrees (i) that the site may be subject to hazards from bluff retreat, erosion, and earth movement; (ii) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

**20. STRUCTURAL APPEARANCE - EXTERIOR BUILDING TREATMENT**

All structures, walls and building exteriors that would be visible from the proposed on-site public trail within the native grassland and coastal sage scrub creation and preservation area, the trails within the Bolsa Chica Wetlands, or the trails or interpretive display area within the Bolsa Chica Ecological Reserve shall be finished in earth tones including muted shades of brown, gray and green, with no white, light or bright colors, except as minor accent features. A color palette board shall be submitted for the review and approval of the Executive Director pursuant to this

special condition. The color shall be maintained throughout the life of the structure(s).

**21. RESIDENTIAL AREA HEIGHT RESTRICTIONS AND HABITAT BUFFER SETBACKS**

- A. The heights of residential structures shall not exceed 35 feet above finished grade as shown on the final approved grading plan. Further, the heights of the residential structures that abut the Eucalyptus Grove ESHA buffer and the burrowing owl buffer shall not exceed 26.5 to 31.5 feet above finished grade, as proposed on the "Development Area (DA) 8 Site Plans", prepared by FORMA, dated May 2002, submitted November 6, 2002.
- B. Structures (enclosed) and appurtenant buildings on residential lots shall be setback a minimum of 20 feet from the rear yard property line and shall be consistent with the above height limits. Rear yard walls on the residential lots abutting the Eucalyptus Grove and burrowing owl ESHA buffers shall not exceed a total height of six feet above finished grade shown on the approved final grading plan. The lower two feet of the rear yard wall shall be on concrete material and the upper four feet shall be of plexiglass material. Future development shall conform to these heights and setbacks unless such heights are changed by an amendment to this permit, unless the Executive Director determines that no amendment to this permit is required.

**22. FUTURE DEVELOPMENT RESTRICTION**

This permit is only for the development described in Coastal Development Permit No. 5-05-020. Pursuant to Title 14, California Code of Regulations, sections 13250(b)(6) and 13253(b)(6), the exemptions otherwise provided in Public Resources Code, section 30610(a) and 30610(b) shall not apply. Accordingly, any future improvements to the single family houses and other structures described in this permit, including, but not limited to, repair and maintenance identified as requiring a permit in Public Resources Code, section 30610(d) and Title 14, California Code of Regulations, sections 13252(a)-(b), shall require an amendment to Permit No. 5-05-020 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government, unless the Executive Director of the Commission determines that no amendment or new permit is required.

**23. PROTECTION OF POTENTIAL ARCHAEOLOGICAL RESOURCES DURING GRADING**

- A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for the review and approval of the Executive Director an

archeological monitoring and mitigation plan, prepared by a qualified professional, that shall incorporate the following measures and procedures:

1. Archaeological monitor(s) qualified by the California Office of Historic Preservation (OHP) standards, Native American monitor(s) with documented ancestral ties to the area appointed consistent with the standards of the Native American Heritage Commission (NAHC), and the Native American most likely descendent (MLD) when State Law mandates identification of a MLD, shall monitor all project grading;
2. The permittee shall provide sufficient archeological and Native American monitors to assure that all project grading that has any potential to uncover or otherwise disturb cultural deposits is monitored at all times;
3. If any cultural deposits are discovered during project construction, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, the permittee shall carry out significance testing of said deposits and, if cultural deposits are found by the Executive Director to be significant pursuant to subsection C of this condition and any other relevant provisions, additional investigation and mitigation in accordance with all subsections of this special condition;
4. If any cultural deposits are discovered, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, all construction shall cease in accordance with subsection B. of this special condition;
5. In addition to recovery and reburial, in-situ preservation and avoidance of cultural deposits shall be considered as mitigation options, to be determined in accordance with the process outlined in this condition;
6. If human remains are encountered, the permittee shall comply with applicable State and Federal laws. Procedures outlined in the monitoring and mitigation plan shall not prejudice the ability to comply with applicable State and Federal laws, including but not limited to, negotiations between the landowner and the MLD regarding the manner of treatment of human remains including, but not limited to, scientific or cultural study of the remains (preferably non-destructive); selection of in-situ preservation of remains, or recovery, repatriation and reburial of remains; the time frame within which reburial or ceremonies must be conducted; or selection of attendees to reburial events or ceremonies. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Where appropriate and consistent with State and Federal laws, the treatment of remains shall be decided as a component of the process outlined in the other subsections of this condition.
7. Prior to the commencement and/or re-commencement of any monitoring, the permittee shall notify each archeological and Native American monitor of the requirements and procedures established by this special condition. Furthermore, prior to the commencement and/or re-commencement of any monitoring, the permittee shall provide a copy of this special condition, the



archeological monitoring and mitigation plan approved by the Executive Director, and any other plans required pursuant to this condition and which have been approved by the Executive Director, to each monitor.

- B. If an area of cultural deposits, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, is discovered during the course of the project, all construction activities in the area of the discovery that have any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options or the ability to implement the requirements of this condition shall cease and shall not recommence except as provided in subsection D and other subsections of this special condition. In general, the area where construction activities must cease shall be 1) no less than a 50-foot wide buffer around the cultural deposit; and 2) no more than the residential enclave area within which the discovery is made.
- C. An applicant seeking to recommence construction following discovery of the cultural deposits shall submit a Significance Testing Plan for the review and approval of the Executive Director. The Significance Testing Plan shall identify the testing measures that will be undertaken to determine whether the cultural deposits are significant. The Significance Testing Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), and the Most Likely Descendent (MLD) when State Law mandates identification of a MLD. The Executive Director shall make a determination regarding the adequacy of the Significance Testing Plan within 10 working days of receipt. If the Executive Director does not make such a determination within the prescribed time, the plan shall be deemed approved and implementation may proceed. Once a plan is deemed adequate, the Executive Director will make a determination regarding the significance of the cultural deposits discovered.
- (1) If the Executive Director approves the Significance Testing Plan and determines that the Significance Testing Plan's recommended testing measures are de minimis in nature and scope, the significance testing may commence after the Executive Director informs the permittee of that determination.
  - (2) If the Executive Director approves the Significance Testing Plan but determines that the changes therein are not de minimis, significance testing may not commence until after the Commission approves an amendment to this permit.
  - (3) Once the measures identified in the significance testing plan are undertaken, the permittee shall submit the results of the testing to the Executive Director for review and approval. The results shall be accompanied by the project archeologist's recommendation as to whether the findings should be considered significant. The project archeologist's recommendation shall be made in consultation with the Native American monitors and the MLD when State Law mandates identification of a MLD. If there is disagreement

between the project archeologist and the Native American monitors and/or the MLD, both perspectives shall be presented to the Executive Director. The Executive Director shall make the determination as to whether the deposits are significant based on the information available to the Executive Director. If the deposits are found to be significant, the permittee shall prepare and submit to the Executive Director a supplementary Archeological Plan in accordance with subsection E of this condition and all other relevant subsections. If the deposits are found to be not significant, then the permittee may recommence grading in accordance with any measures outlined in the significance testing program.

- D. An applicant seeking to recommence construction following a determination by the Executive Director that the cultural deposits discovered are significant shall submit a supplementary Archaeological Plan for the review and approval of the Executive Director. The supplementary Archeological Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), the Most Likely Descendent (MLD) when State Law mandates identification of a MLD, as well as others identified in subsection E of this condition. The supplementary Archeological Plan shall identify proposed investigation and mitigation measures. If there is disagreement between the project archeologist and the Native American monitors and/or the MLD, both perspectives shall be presented to the Executive Director. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Mitigation measures considered shall range from in-situ preservation to recovery and/or relocation. A good faith effort shall be made to avoid impacts to cultural resources through methods such as, but not limited to, project redesign, capping, and creating an open space area around the cultural resource areas. In order to protect cultural resources, any further development may only be undertaken consistent with the provisions of the final, approved, Supplementary Archaeological Plan.
- (1) If the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after the Executive Director informs the permittee of that determination.
  - (2) If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after the Commission approves an amendment to this permit.
- E. Prior to submittal to the Executive Director, all plans required to be submitted pursuant to this special condition, shall have received review and written comment by a peer review committee convened in accordance with current professional practice that shall include qualified archeologists and representatives of Native American groups with documented ancestral ties to the

area. Names and qualifications of selected peer reviewers shall be submitted for review and approval by the Executive Director. The plans submitted to the Executive Director shall incorporate the recommendations of the peer review committee. Furthermore, upon completion of the peer review process, and prior to submittal to the Executive Director, all plans shall be submitted to the California Office of Historic Preservation (OHP) and the NAHC for their review and an opportunity to comment. The plans submitted to the Executive Director shall incorporate the recommendations of the OHP and NAHC. If the OHP and/or NAHC do not respond within 30 days of their receipt of the plan, the requirement under this permit for those entities' review and comment shall expire, unless the Executive Director extends said deadline for good cause. All plans shall be submitted for the review and approval of the Executive Director.

- F. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**24. CURATION OF ARTIFACTS AND DISSEMINATION OF CULTURAL INFORMATION**

PRIOR TO ISSUANCE OF THIS PERMIT the applicant shall submit for the review and approval of the Executive Director, evidence of a written agreement with a curation facility that has agreed to accept any artifacts recovered from the project site. Any such artifacts shall be curated within Orange County, at a facility meeting the established standards for the curation of archaeological resources. Further, the applicant shall request in the agreement that the facility receiving the collection prepare an appropriate display of significant materials so that the public can view the investigation results and benefit from the knowledge gained by the investigations.

If permanent curation facilities are not available, artifacts may be temporarily stored at a facility such as the Anthropology Department of the California State University at Fullerton until space becomes available at a facility meeting the above standards. The applicant shall submit written proof of acceptance from the above curation or temporary facility of 100 percent of the recovered artifacts prior to issuance of the permit.

PRIOR TO ISSUANCE OF THIS PERMIT the applicant shall submit, for the review and approval of the Executive Director, a written agreement to distribute the series of ORA-83 Research and Salvage Program Final Reports to interested area institutions, vocational groups and Native American tribal units within Southern California, as well as to appropriate City, County and State agencies, as proposed in the "Archaeological Research Design ORA-83: "The Cogged Stone Site" Final

Research and Salvage Program", by Scientific Resource Surveys, Inc., dated November 11, 1983 and conditioned in coastal development permit 5 89-772, as amended.

**25. OTHER AGENCY APPROVALS**

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall provide to the Executive Director a copy of a permit, or letter of permission, or evidence that no permit or permission is required for the project subject to this coastal development permit, issued by the following entities: County of Orange; City of Huntington Beach, California Department of Fish and Game; U.S. Fish and Wildlife Service; Regional Water Quality Control Board; Orange County Fire Authority; Orange County Sanitation District and the State Lands Commission. The applicant shall inform the Executive Director of any changes to the project required by the cited entities. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

**26. COMPLIANCE**

All development shall occur in strict compliance with the proposal as set forth in the application for permit, subject to any changes approved in this permit and subject to any approved revised plans provided in compliance with the Commission's special conditions and any other special conditions noted above. Any proposed change from the approved plans must be reviewed and approved by the Executive Director to determine if an amendment or new permit is necessary.

**27. INSPECTIONS**

The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.

**IV. FINDINGS AND DECLARATIONS**

The Commission hereby finds and declares:

**A. DESCRIPTION OF PROPOSED PROJECT AND PROJECT SITE**

Bolsa Chica Mesa is made up of a lower bench and an upper bench (also referred to as the lower mesa and upper mesa) separated by a gentle slope. The upper bench is

located adjacent to and south of Los Patos Avenue and west of Bolsa Chica Street in the unincorporated area of Bolsa Chica, County of Orange. Although the majority of the upper bench (105.3 acres) is located within the unincorporated Bolsa Chica area of Orange County, approximately 0.95 acres in the northeasterly corner of the Brightwater development is located within the corporate boundaries of the City of Huntington Beach (Exhibit 1). Huntington Beach has a certified Local Coastal Program. Therefore, the City of Huntington Beach would be the agency to which the applicant must file a coastal development permit application for these nine homes. The site is surrounded on the north (across Los Patos Avenue) and northeast by (the Sandover development in the City of Huntington Beach) residential development, the Goodell property and Bolsa Chica Street; on the southeast by the Shea Homes property (the pending Parkside Development located in the City of Huntington Beach) and the existing concrete lined East Garden Grove-Wintersburg (EGGW) Flood Control Channel; on the south by the now State-owned Bolsa Chica lowlands; and on the west by the approximately 120 acre lower bench of the Bolsa Chica Mesa and beyond the lower bench, the 306 acre Bolsa Chica Ecological Reserve owned by the State Lands Commission and managed by the California Department of Fish and Game, Pacific Coast Highway, Bolsa Chica State Beach and the Pacific Ocean (Exhibit 2).

The proposed Brightwater development is located primarily on the 105.3-acre upper bench. The applicant owns approximately 103 acres on the lower bench of the Bolsa Chica Mesa, with the Ocean View School District owning 15 acres and the State Lands Commission owning the remainder of the lower bench as part of the upland portion of the Bolsa Chica Ecological Reserve. Although the applicant has indicated that their 103-acre lower bench holdings are not a part of the development proposal, some development is actually proposed for the lower bench, namely, the creation of an 11.8 acre separate legal parcel through the proposed subdivision. Upper bench development consists of a subdivision into 349 single-family residential lots, passive public recreation, open space and habitat conservation areas are also proposed.

### **Overview of Brightwater Development Project**

#### **Subdivision Proposal**

The subject coastal permit application is to subdivide and develop the upper bench of the Bolsa Chica Mesa with a 349-unit residential community. The upper bench, approximately 105.3 acres in size, is primarily one legal parcel comprised of a portion of Parcel 2 of Certificate of Compliance No. CC 92-01, but also includes an 8.2-acre parcel of land formerly owned by Metropolitan Water District. However, Parcel 2 extends down the slope separating the upper and lower benches and includes approximately 16 acres of land on the lower bench and the Lowlands (Exhibit 5). The lower bench is approximately 20 - 30 ft. above the adjacent Bolsa Chica Lowlands containing the Bolsa Chica wetlands. Approximately 5 of the 16 acres of Parcel 2 are located within the Lowlands (at or below 5 MSL) and the remainder, 11.8 acres is located on the lower bench. The Lowland portion of Parcel 2 was sold to the State of California in 1997 when the applicant sold its holdings

within the Lowlands to the State for wetlands restoration purposes. Therefore the remaining portion of Parcel 2 that is subject to the proposed subdivision through the approval of VTTM 15460 is 11.8 acres in size and located on the lower bench (Exhibit 5).

Under the proposed vesting tentative tract map (VTTM) 15460 the applicant is requesting to separate this 11.8-acre lower bench portion from the larger upper bench portion of the existing Parcel 2 and create a "residual" parcel on the lower bench. Staff incompleated the initial coastal development permit application for the proposed development in December, 2002 for several items, including the applicant's plans concerning the lower bench<sup>3</sup>. Staff noted in the letter to the applicant that all previous evaluations of the biological resources, potential impacts and planning efforts for the Bolsa Chica Mesa included both the upper and lower benches of the Mesa. The applicant's response was that there were no plans, at the present time, for the lower bench. Staff further noted that the creation of this 11.8-acre residual lot is a division of land that constitutes development under Section 30106 of the Coastal Act. Thus, the application does include development on the lower bench, and the creation of a new parcel requires an explanation of the plans for that parcel. Initially the applicant was proposing to also translocate Southern Tarplant from the upper bench, within the proposed residential development footprint, to the lower bench. However, the applicant has now revised this application to eliminate any translocation of tarplant to the lower bench. Although the applicant is no longer proposing to translocate Southern Tarplant onto the lower bench, the proposed project would still involve development, as defined by Section 30106 of the Coastal Act, with the creation of the 11.8-acre parcel. All development in the coastal zone, unless it is otherwise exempt, must be approved by the Coastal Commission, since the local government has no certified LCP for this area. Despite the applicant's contention that none of the lower bench is before the Commission in the subject application, the Commission disagrees with this statement. Therefore, the proposed lower bench development is being analyzed under this application as it was approved by the local government in the approval of VTTM No. 15460 and is included in the application submittal to the Commission.

### **Residential Community**

The proposed Brightwater residential community is a 349-unit development on approximately 68 acres of the 105.3-acre project site. The community is planned at medium-low density (6.5-12.5 DU/Ac), although the actual density within the development subareas range from 4.0 to 8.2 dwelling units per acre. The average community density is only 5.4 DU/AC. The community design concept is that of a New England coastal village with six styles of single-family housing types and sizes. The four larger single-family home types have lots ranging from 5,000 to 6,500 square feet and homes ranging from 2,200 to 4,200 square feet. There will also be smaller units constructed as planned unit developments using reciprocal easements (zero lot lines) and other integrated site

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<sup>3</sup> The initial coastal development permit application that was submitted on November 6, 2002 was application 5-02-375. The applicant provided Commission staff with the requested additional information in several separate submittals over an extended period of time. The application was finally filed on September 24, 2003.



planning techniques but are detached single family residential units. The smaller styled developments have lots that are approximately 3,000 sq. ft. and the homes range from roughly 1,500 to 1,900 sq. ft. All units range from 3 to 5 bedroom floor plans with one product type having as few as two bedrooms. None of the units will exceed 35 feet in height and most will be at 28 - 32 ft. high. Project grading consists of 220,000 cubic yards of cut and 220,000 cubic yards of fill. The two areas receiving the greatest cut are the high point near Warner and Los Patos and the central bluff area where the applicant will be removing the earthen mound and the temporary stockpile of crushed concrete that was constructed with remnants of the two World War II bunkers and water cistern under coastal development permit 5-90-1143, approved on September 13, 1991.

At the northeast corner of the Brightwater project site is the boundary between the City of Huntington Beach and the unincorporated Orange County area. The boundary cuts diagonally between the Brightwater site and the recently completed Sandover development in Huntington Beach (Exhibit 3). One of the project goals is to integrate the two communities. Three of the lots approved under the VTTM 15460 will be annexed to the City and combined with three of those lots. As a result of the annexation and vacation of the existing entry into the Sandover development the potential for nine additional lots exist. Annexation and construction of any development in the City of Huntington Beach is not authorized under the subject coastal development permit. The City will handle development within the City of Huntington Beach as the certified Huntington Beach LCP covers the area.

#### **Public Recreational Amenities**

At the western and southern edges of the Brightwater development project are Planning Areas 3A and 3B, which together constitute the 34.2-acre upland habitat restoration and preservation area, located along the gentle slope between the upper and lower benches and on the southeastern bluff face of the upper bench of the Bolsa Chica Mesa (Exhibit 3). The upland habitat restoration and preservation area includes the existing 5-acre Eucalyptus grove along the southeastern bluff. The existing 0.41-acre "pocket wetland" is also within the habitat park and will be preserved in place and provided with a 100 ft. wetland buffer. Protective fencing will be placed around the Eucalyptus ESHA and the existing wetland. Split rail fencing will be on the bluffward side of the trail. The passive habitat park will be planted with native grassland and coastal sage scrub and coastal bluff scrub vegetation. Within the park will be a 6 foot wide decomposed granite pedestrian trail, interpretive signage, and rustic seating along the trail. Once constructed, the upland habitat park will be dedicated to the County of Orange or other public agency or non-profit group for public access and conservation purposes.

Other community facilities include a 1.2 million gallon underground water storage reservoir as well as an above ground domestic water pump station including two fire pumps. A temporary on-site groundwater well will be constructed and used during grading and construction operations. The temporary well will be abandoned once the permanent underground reservoir is completed. As detailed in Section D. of this staff report, the

Orange County Fire Authority (OCFA) requires initial and on-going fuel modification to protect the future homes within the 34.2-acre area proposed for habitat restoration and preservation.

### **Site Description**

The approximately 225-acre Bolsa Chica Mesa is only one portion of the Bolsa Chica LCP area. On the opposite end (to the south) of the LCP area is the Huntington Mesa, including the proposed Harriett Wieder Regional Park. The County of Orange began its LCP planning activities in 1977, segmented the area within its coastal zone jurisdiction into four segments with 12 geographic subareas or segments, the Bolsa Chica area being one of those segments. The Bolsa Chica LCP area is comprised of approximately 1,588 acres of unincorporated land within the coastal zone of northwestern Orange County. Currently, the land exists predominantly as open space containing both upland and wetland habitat. The Bolsa Chica and Huntington mesas rise some 50 feet above the lowlands and are open space areas consisting primarily of non-native grasslands. However, they are a very important component of the Bolsa Chica ecosystem. An extensive wetland area located between two upland mesas to the north (Bolsa Chica Mesa) and south (Huntington Mesa) dominates the site. The Pacific Coast Highway, Bolsa Chica State Beach, and the Pacific Ocean border the western side, while urban development occurs to the northeast. The Bolsa Chica wetlands were formerly part of an extensive coastal lagoon/salt marsh system, which was estimated to cover 2,300 acres in 1894 by the U.S. Fish and Wildlife Service. Today, substantial portions of the wetland habitat remain in the lowland area.

Bolsa Chica is a unique place along the California coast. Bolsa Chica has undergone substantial degradation caused by human interference with its natural wetlands processes commencing in the 1800's. Bolsa Chica has been used for a variety of purposes over the years, most notably for on-going oil and gas production since the 1930's. Beginning in the 1960's and continuing through the late 1980's, it became increasingly recognized that the wetlands at Bolsa Chica were in need of major restoration. Initially restoration was proposed to be achieved through construction of a new ocean inlet in conjunction with a marina (boating facility).

Over the past century, Bolsa Chica has been affected by urban, recreation, and oil-related development. Three state oil leases occur within the lowlands, which currently support 331 oil wells (active and inactive), related oil facilities, and improved and unimproved roadways. Although development has markedly changed Bolsa Chica, the area currently contains substantial and important natural resource values. The Bolsa Chica Lowlands contains one of the largest remaining coastal wetlands in southern California.

Although a good portion of the wetlands is now degraded due to oil production, road construction and flood control, tens of thousands of birds use Bolsa Chica Lowlands every year, including six endangered or threatened species. Up until 1997, the majority of the lowlands were in private ownership. However, in 1997, the State of California acquired 880 acres of the lowlands for the purpose of carrying out a comprehensive wetlands

restoration, including a new ocean inlet. The Ports of Los Angeles and Long Beach are providing funding for the wetland restoration.

The Bolsa Chica Mesa has also been subject to various activities and development over the years, including cattle and sheep grazing and other agricultural activities, hunting and the construction of the Bolsa Chica Gun Club in the 1890's, oil exploration including the construction of numerous oil wells and pipelines and the construction of numerous roads that crisscross the mesa, military use with the construction of two gun emplacements or bunkers during World War II, and a borrow site for surrounding urban development. At the southern edge of the lower and upper benches of the Bolsa Chica Mesa is a continuous grove of Eucalyptus trees, planted by the property owner in the early 1900's to serve as a windbreak. Although Eucalyptus trees are not native to the area, they serve a vital biological role in the wetland/upland ecosystem. The Eucalyptus grove totals approximately 20 acres on both benches, 5 acres being on the upper bench. It is recognized by the Department of Fish and Game as an environmentally sensitive area and has been recognized by the Coastal Commission and the courts as an environmentally sensitive habitat area or ESHA, as defined by the Coastal Act. Further inland from the Bolsa Chica Mesa bluff edge are grasslands that are used by both birds and land mammals, including, but not limited to, the burrowing owl, for foraging.

## **B. PLANNING HISTORY**

The planning effort for the Bolsa Chica segment of the County of Orange Local Coastal Program is long and controversial. Although the subject application is the third<sup>4</sup> substantial coastal development permit application to the Coastal Commission for permanent development on the Bolsa Chica Mesa, the Commission's first consideration of the Bolsa Chica Local Coastal Program (LCP) began in 1982. Despite the Commission's numerous actions on the Bolsa Chica LCP throughout this twenty-year period, no LCP has ever been fully certified.

The Bolsa Chica LCP planning area is approximately 1,588 acres in size. The planning area is flanked on the north by Warner and Los Patos Avenues and the Bolsa Chica Mesa and on the south by the Huntington Mesa and Seapoint Street<sup>5</sup>. Between the two mesas is the 1,300-acre Bolsa Chica Lowland. The Pacific Ocean (Bolsa Chica State Beach) borders the western side of the planning area with residential development in the City of Huntington Beach on the east. The lowlands are primarily historic and currently functioning wetlands interspersed with former wetlands that are utilized for oil production activities (pads and roads) and upland areas that are Environmentally Sensitive Habitat Areas. The

<sup>4</sup> The current application, 5-05-020 is the third application for the proposed Brightwater development. The two previous applications were submitted in November 2002 (5-02-375) and May 2004 (5-04-192). Both applications were withdrawn but proposed similar residential and passive park development as earlier versions of the subject Brightwater development proposal.

<sup>5</sup> Approximately 10 acres of the Huntington Mesa and Seapoint Street are within the City of Huntington Beach.

306-acre Bolsa Chica Ecological Reserve, including Inner and Outer Bolsa Bay, are managed by the California Department of Fish and Game. The East Garden Grove-Wintersburg (EGGW) Flood Control Channel, maintained by Orange County Flood Control District, is also within the Bolsa Chica lowlands. The flood control channel empties into Outer Bolsa Bay.

The Commission's first approval of the Bolsa Chica Land Use Plan (LUP) occurred in November 1984. On October 23, 1985, a revised land use plan was adopted which would have allowed for intensive development of the area including 75 acres of mixed-use marina/commercial, a 150 room motel, 500 acres of high density residential development, a navigable tidal inlet, an arterial roadway through the Bolsa Chica Wetlands (the Cross-Gap Connector), and 915 acres of wetland restoration. The amount of wetland fill that would have occurred under this LCP was not specified. This controversial LUP was never fully certified.

In June 1995, the County of Orange submitted an amended proposal of the Bolsa Chica Local Coastal Program (LCP) for Commission certification. As submitted in 1995, the Bolsa Chica LCP would have allowed 2,400 units on the upper and lower benches of the Bolsa Chica Mesa, and up to 900 residential units in the Lowlands for a total of 3,300 residential units. The Lowland development would have resulted in the fill of 120 acres of wetland and the elimination of 65 acres of ESHA that was interspersed between the wetlands. The major property owner was required to fund the restoration of 770 acres of adjacent wetlands and dedicate the restored wetlands to a public agency, as mitigation for the wetland impacts. Public access and recreational facilities included a public loop road ("mesa connector road") on the Bolsa Chica Mesa, active and passive parks on both the Bolsa Chica Mesa and in the Lowlands, 100 public parking spaces on the Bolsa Chica Mesa and 60 public parking spaces in the Lowlands, pedestrian and bicycle trails on the mesas and in the Lowlands, a 4-acre kayak/conoe/beach facility on the inland side of PCH, and the optional provision of 10 acres of neighborhood commercial use on the Bolsa Chica Mesa. Fifty-eight acres of land on the Huntington Mesa was to also be dedicated to the County of Orange for the Harriet Wieder Regional Park. Development on the Bolsa Chica Mesa would have eliminated Warner Pond, a 1.7-acre wetland located on the lower bench. Additionally, the Eucalyptus grove on the Bolsa Chica Mesa was to be relocated onto the Huntington Mesa in order to accommodate the build-out of the Bolsa Chica Mesa. The Commission approved this amended version of the Bolsa Chica LCP on January 11, 1996. The Commission's decision became the subject of a lawsuit.

The trial court determined on June 4, 1997 that the Commission's approval of the Bolsa Chica LCP was deficient in two respects. First, that Section 30233 of the Coastal Act does not allow the fill of wetlands for residential purposes. Second, that the Warner Pond wetland was an environmentally sensitive habitat area (ESHA) and that the Commission failed to explain how such an ESHA could be filled consistent with Section 30240 of the Coastal Act. The trial court remanded the Bolsa Chica LCP to the Commission. The Commission reheard portions of the proposed Bolsa Chica LCP on October 9, 1997. The

Commission limited its review to those aspects of the case on which the court had remanded.

At the Commission's October 9, 1997 meeting, significant revisions were made to the Plan as originally submitted in June 1995. The Commission found in October 1997 that the fill of wetlands for residential development was not an allowable use and denied the development proposed in the lowland area. Residential development of the upper and lower benches of the Bolsa Chica Mesa was also scaled back to 1,235 residential units to avoid the widening of Warner Avenue which necessitated the fill of Warner Pond. Since lowland residential development was denied, the proposed wetland restoration mitigation project was also deleted from the Bolsa Chica LCP since it was to be funded by the developer through the lowland residential development. Furthermore, the wetland restoration program became moot since the majority of the lowland (880 acres) was acquired by the State of California, thus becoming public trust lands. The State and Federal governments have a Coastal Commission approved wetland restoration program covering 1,247 acres of the lowland. On November 13, 2001, the Commission approved Consistency Determination No. CD-061-01 (U.S. Fish and Wildlife Service) for the major wetland restoration project.

The Commission's October 9, 1997 decision on remand was again reviewed by the courts under the original challenge to the Commission's 1996 approval of the Bolsa Chica LCP. On April 16, 1999, the appellate court upheld the trial courts findings, added a new finding and remanded the Bolsa Chica LCP back to the Commission. The new finding of the appellate court was that the relocation of the Eucalyptus grove from the Bolsa Chica Mesa to the Huntington Mesa was not allowed under Section 30240 of the Coastal Act. To comply with the appellate court's remand, the Commission once again re-heard the Bolsa Chica LCP on November 11, 2000. The Commission certified the LCP again, with suggested modifications that were significantly different from the previous suggested modifications.

In the Commission's 2000 approval, it again limited the number of residential units on the Bolsa Chica Mesa to a maximum of 1,235 to avoid the filling of Warner Pond. However, the Commission further required that all future development be concentrated on the upper bench of the Bolsa Chica Mesa adjacent to existing residential development and that the entire lower bench (with the exception of a 10 acre school site adjacent to Warner Avenue) be designated for conservation and preserved through an open space deed restriction. The Commission found that in order to be most protective of the resources that development of the Bolsa Chica Mesa must be confined to the upper bench of the mesa, in close proximity to existing development, to conserve all of the resources of the lower bench in a manner that is more protective overall of significant coastal resources, than protecting each specific habitat area in conjunction with development of the entire Bolsa Chica Mesa.

The Commission also required that the Eucalyptus grove ESHA remain intact and protected on the Bolsa Chica Mesa and that it not be relocated to the Huntington Mesa, as

was previously proposed and approved under the earlier LCP. To protect the portion of the Eucalyptus ESHA located on the upper bench, the Commission required that all future residential development be set back a minimum of one hundred feet from either the inland edge of the grove or the inland edge of the bluff, whichever is the greatest distance. The Commission's 2000 action on the LCP further required that future development of the portion of the upper bench that overlooks the lower bench was required to be set back fifty feet from the upper edge of the slope separating the two benches. Other significant suggested modifications contained in the Commission's 2000 action included the prohibition of storm water discharges directly into Outer Bolsa Bay or other wetland area; the provision of a scenic public loop road allowing public parking on both sides, immediately landward of the buffer and paralleling the portion of the upper bench that overlooks the Lowlands; and the protection of cultural resources by requiring that a Native American monitor also be present during all grading operations.

The Commission's November 2000 action was unacceptable to the County of Orange and the landowner. In May 2001, the County notified the Commission that it would not be adopting the Commission's suggested modifications. Therefore, the Commission's certification of the LCP lapsed six months after its action. Therefore the standard of review for the currently proposed development remains the Chapter 3 policies of the Coastal Act since there is no certified LCP for the Bolsa Chica area of the County of Orange.

**C. COMPARISON OF THE PROPOSED PROJECT WITH THE COMMISSION'S 2000 BOLSA CHICA LOCAL COASTAL PROGRAM ACTION**

During consideration of the Bolsa Chica LCP in November 2000, the Commission approved 100-ft. and 50-ft. buffers around sensitive habitats on the upper bench. Although the buffers were limited, the reduced buffers were accepted in the context of balancing some resource impacts against benefits that could be derived from the concentration of development on the upper bench that allowed the enhancement of biological productivity and marine resources and the protection of a contiguous block of habitat through the placement of an open space easement over the entirety of the lower bench of the Bolsa Chica Mesa. This balancing approach was only possible because the Commission had the entire Bolsa Chica Mesa before it given that they were acting on an LCP amendment that included all of the area within the Bolsa Chica LCP Area. The current situation is qualitatively different because the applicant has, for the most part, excluded the lower bench from consideration.

The Commission approved the Bolsa Chica Local Coastal Program (LCP) with suggested modifications on November 16, 2000. Following Commission action the County of Orange informed the Commission that the suggested modifications were unacceptable, and they were not adopted by the Board of Supervisors. Therefore, pursuant to sections 13537(b) of the Commission's regulations, the Commission's certification of the LCP has lapsed and is no longer of any legal effect. Although the certification of the LCP has lapsed, making



the standard of review the Chapter 3 policies of the Coastal Act, the Commission can still look at its 2000 action on the Bolsa Chica LCP as an example of one set of LCP provisions and a development scenario the Commission found to be consistent with the Chapter 3 policies of the Coastal Act.

The applicant has asserted that the October 2004 project was designed using the 2000 Bolsa Chica LCP as guidance and further states that the previously proposed Brightwater development was consistent with the 2000 LCP as approved by the Commission with suggested modifications. The current application submitted in January 2005 is very similar to the October 2004 Brightwater project. As discussed in the above Executive Summary, the current application has been revised to eliminate the prohibition on public vehicular access into and parking within the community, eliminate the "restoration fill" at the bluff edge as well as the Bolsa Chica Road extension and 30-space public parking lot encroachments into the Eucalyptus ESHA, and eliminate the Southern Tarplant translocation and impacts with the elimination of the water quality features on the slope. However, a comparison of the proposed project against the standards the Commission imposed in its action on the recent Bolsa Chica LCP demonstrates that the proposed Brightwater development project differs greatly from the Commission's 2000 action, in a number of significant ways.

FEATURE	2000 LCP AS APPROVED WITH SUGGESTED MODS	PROPOSED PROJECT
Bolsa Chica Mesa Land Area Covered	Entire Upper Bench; Entire Lower Bench	Entire Upper Bench; 11.8 ac of 103 ac ownership on the lower bench.
Land Use of Lower Bench	Except for the 10-acre school site depicted as Public Facility on Fig.2.1-2, the lower bench of the Bolsa Chica Mesa shall be designated Conservation. The Eucalyptus Grove ESHA and the Warner Ave. Pond ESHA shall be preserved. (Portion of County Policy 3.1.2.4, page 60 of Exhibit 21)	Land use of 11.8-acre residual parcel created by VTTM 15460 is unknown given the uncertainty of the pending sale of the lower bench. The remaining 91.2 acres of the applicant's ownership of the lower bench is expressly not included in this application.
Size and Measurement of ESHA Buffer	The buffer on the Bolsa Chica Mesa upper bench overlooking the lowland shall	The applicant is proposing a varied width buffer ranging from 100 to 332 ft between

	extend inland one-hundred feet <sup>6</sup> from either the Eucalyptus grove ESHA or the edge of the top-of-bluff, whichever is the greatest distance. The buffer separating the lower bench from the upper bench shall extend from the top edge, fifty-feet into the upper bench. (Portion of County Policy 3.1.2.6, page 64 of Exhibit 21).	the nearest Eucalyptus tree and the edge of the proposed 50 ft. wide fuel modification Zone B. Because the lower bench is not before the Commission there is no shifting of development from the lower bench to the upper bench to justify the reduced buffer. The greater width buffer is measured from the edge of the Eucalyptus grove. However, the existing edge of the top-of-bluff is landward of the Eucalyptus grove. Using the existing edge of the top-of-bluff would provide for a wider, more protective buffer, as required by the LCP Policy 3.1.2.6. Using the more protective measurement from the existing bluff edge, the buffer is only 50 ft wide.
Development Adjacent to ESHA (within ESHA buffers) or Park and Recreation Areas	Development in areas adjacent to ESHAs 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. (New Policy 6, page 61 of Exhibit 21)	Initially, the proposed Eucalyptus grove buffer was 150 to 382 ft. wide, as measured from the edge of the grove. However, because OCFA requires that the 50 ft. area closest to the future homes be permanently irrigated to protect them from fire damage, the applicant has reduced the ESHA buffer by 50 ft. Because permanent irrigation to support adjacent

<sup>6</sup>The adopted findings of the LCP, dated November 27, 2000, pages 251 – 262 and the attached memo from Dr. John Dixon, staff ecologist, indicate clearly that the ESHA buffer was being reduced to 100 feet, as opposed to 100 meters, in order to concentrate development on the upper bench since a conservation easement was required to be placed on all areas of the lower bench that were owned by the landowner/master developer of the upper bench, as required by County Policy 3.1.2.6 and other LCP policies.

		residential use is not a use based on the needs of the habitat buffer, the applicant has simply reduced the width of the habitat buffer.
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As demonstrated in the table above, the proposed Brightwater development project is not consistent with the Commission's action on the 2000 LCP with regards to: failure to include the applicant's lower bench holdings (with the exception of a proposed 11.8-acre remainder parcel being created by the proposed subdivision) in the coastal development permit application in conjunction with the consideration of development on the upper bench and thus no offer of dedication of a conservation easement over the lower bench is included as a part of this application; Eucalyptus ESHA buffer is not being measured in the most protective manner (from the top of bluff edge) and is further reduced from one-third the size of the staff recommended 100 meter buffer down to only 50 ft. from the top of bluff and does not include a conservation easement over the lower bench as a part of this coastal development permit application. Although the 2000 LCP did not specifically recognize the burrowing owl habitat as ESHA, one of the Commission's suggested modifications (new Policy 6) required that development in areas adjacent to ESHAs be sited and designed to prevent impacts that significantly degrade the ESHA and that development allowed adjacent to the ESHA be compatible with the continuance of the habitat area.

Although the proposed Brightwater development project is not consistent with what the Commission approved with respect to the 2000 LCP as demonstrated in the above table, that fact in and of itself is immaterial. For one thing, there are undoubtedly multiple approvable ways to structure development on the Bolsa Chica Mesa. Moreover, the standard of review for this project proposal is the Chapter 3 policies of the Coastal Act, not the Commission's previous action, which has expired and is of no legal force or effect. However, the comparison of the proposed project with the most recent LCP action for the area is a useful exercise since the Commission in its action on the LCP found that a project designed to be consistent with the policies of the LCP, as approved with suggested modifications, would also be consistent with the Chapter 3 policies of the Coastal Act. In addition, the applicant has asserted that its current proposal is consistent with the Commission's 2000 LCP action.

#### **D. BIOLOGICAL RESOURCES**

Although 82.6 acres of the 105.3-acre Brightwater development project site (78%) is dominated by non-native annual grasslands and ruderal communities, the upper bench of the Bolsa Chica Mesa is adjacent to a non-native "Eucalyptus" grove that has been designated an Environmentally Sensitive Habitat Area by the California Department of Fish and Game and the Coastal Commission and recognized as such by the courts; and Southern Tarplant and coastal bluff scrub communities that were designated

Environmentally Sensitive Habitat Areas by the Commission in the 2000 Bolsa Chica Local Coastal Program, and two important freshwater wetlands. These native and non-native communities combine to make the Bolsa Chica Mesa ecologically valuable. The mesa and its associated bluffs provide habitat for over 88 species of land birds, including some 33 resident species, 38 migrants, 15 wintering species and 3 summering species. Reptiles and at least ten species of mammals also utilize the Bolsa Chica Mesa.

The Bolsa Chica Mesa must also be viewed in the larger context of its role in the upland/wetland ecosystem. According to both the California Department of Fish and Game and the U.S. Fish and Wildlife Service, the Bolsa Chica Mesa and the lowland wetlands are biologically interdependent. Together with the Bolsa Chica wetlands, a part of the roughly 1,300 acre Bolsa Chica Lowlands, the mesa communities which include both the Bolsa Chica Mesa and the Huntington Mesa to the south of the Lowlands, combine to make this area an important upland-wetland ecosystem. These biological interdependencies are vital to maintaining biological productivity and diversity. However, it must also be recognized that over the years, this resource area has declined due to human impacts and development pressures. Commission staff ecologist, Dr. John Dixon, summarizes the declining, but still valuable, overall ecological condition of the greater Bolsa Chica area in a July 15, 2004 memo on the October 2004 Brightwater Development Project in this way:

"The Bolsa Chica wetlands once covered over 30 square miles and, on the Bolsa Chica and Huntington Mesas, were bounded by coastal sage scrub communities that interacted ecologically with the wet lowlands. Although the wetlands have been reduced to less than two square miles and the adjoining mesas have been substantially developed and the remaining open space much altered, the U. S. Fish and Wildlife Service in 1979 nonetheless identified the Bolsa Chica ecosystem as "one of the last remaining viable wetland-bluff ecosystems in southern California." This viewpoint was echoed by conservation biologists over twenty years later: "...Bolsa Chica is one of the last remaining areas in coastal southern California with a reasonably intact upland-wetland gradient, which is of high ecological importance and generally lacking in representation in reserves in the region." In nearly all other coastal marsh ecosystems in southern California, the upland components have succumbed to urban development. Uplands provide pollinators for wetland plants, nesting and denning sites for avian and mammalian predators that forage in wetlands, important alternative prey populations for many of those predators, and critical habitat for primarily upland species. Many species have life-stages that rely on both wetland and upland habitats ... [citations omitted]

Dr. Dixon's memo can be found in its entirety as Exhibit 28 to this staff report and is incorporated herein by reference. Due to the special communities of the Bolsa Chica Mesa, many areas of the mesa have previously been determined to constitute environmentally sensitive habitat areas, as defined by and protected by the Coastal Act, or, if not previously so recognized, nevertheless qualify as such. The Coastal Act defines environmentally sensitive habitat areas or environmentally sensitive areas as:

Section 30107.5

*"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.*

Further, Section 30240 of the Coastal Act requires that land resources that constitute environmentally sensitive areas or environmentally sensitive habitat areas as defined by Section 30107.5 be protected by allowing only resource dependent uses within those areas. Additionally, development adjacent to environmentally sensitive areas and parks and recreation areas must be sited and designed such that the adjacent development will not degrade the habitat or recreation values of the sensitive resource. Finally, uses adjacent to environmentally sensitive land resources and park and recreation areas must be compatible with the continuance of the resource area. Coastal Act Section 30240 states:

Section 30240

*(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.*

In the November 2, 2000 Commission staff report concerning a proposed amendment to the Bolsa Chica Local Coastal Program the following Environmentally Sensitive Habitat Areas (ESHA) were identified: (1) the Eucalyptus grove on and along the edge of both the upper and lower bench of the Bolsa Chica Mesa; (2) Warner Pond, located on the lower bench, a marine habitat connected by culvert to Huntington Harbor; (3) the natural habitats within the California Department of Fish and Game Ecological Reserve along the western edge of the lower bench of the Bolsa Chica Mesa; (4) the coastal sage scrub community; (5) habitat of the southern tarplant throughout the mesa; and, (6) the degraded wetlands in the lowlands that are part of a restoration plan. The Eucalyptus trees, Warner Pond, and the Ecological Reserve were generally depicted, the locations of the other ESHA types were not mapped.

There has been no change in circumstances in the intervening four years that would cause the removal any of these habitats from the recommended list of environmentally sensitive habitat areas on or adjacent to the Bolsa Chica mesa. Thus the Commission finds these areas to constitute ESHA. The only exception to this is that, as described

below, the ESHA delineation for the Eucalyptus grove is being modified to more precisely reflect the nature and extent of that ESHA. In addition to the abovementioned habitats, the upper bench of the Bolsa Chica Mesa contains two small but functioning wetlands: the 0.2 acre Los Patos seasonal wetland (referred to as "seasonal pond" by the applicant), located near Los Patos Avenue and the 0.06 acre "pocket wetland" located in the central slope/bluff edge area (Exhibit 20, Figure 1). The Los Patos wetland is a seasonally ponded depression, dominated by herbaceous vegetation, including the rare Southern Tarplant. The "pocket wetland" is a small borrow pit dominated by a stand of willows and mulefat with very little understory vegetation. These wetlands are protected under Section 30233 of the Coastal Act and only certain enumerated uses are allowed. Moreover, even those uses can only be implemented if no less environmentally damaging feasible alternative exists, and if feasible mitigation measures are provided. However, these freshwater wetlands do not constitute ESHA as defined above. The proposed Brightwater development project however does not propose to fill these wetlands but will retain them in place with a 100-foot wetland buffer. Special Condition 10, the final Habitat Management Plan, requires the proposed 100-foot wetland buffer to be implemented. This wetland buffer is consistent with numerous past Commission actions to protect wetlands from the effects of adjacent development. However, care must be taken during grading and construction to assure that impacts to the wetlands are avoided. Special Condition 9, Construction Staging Area and Fencing, assures that the wetlands and all habitat areas are protected during grading and construction.

Another habitat of the Bolsa Chica Mesa that was not identified as ESHA in the Commission's previous actions on the Bolsa Chica LCP is that of the burrowing owl. The burrowing owl is considered a California Species of Special Concern by the Department of Fish and Game. Burrowing owls use the Bolsa Chica grassland and ruderal habitats as well as abandoned burrows of rodents or other small mammals. In the winters of 2001-2002 and 2002-2003, the applicant's biologist documented use of specific areas of the mesa by this owl (Exhibit 17a). The characteristics of the burrowing owl habitat, its ESHA status on the Bolsa Chica Mesa, and the proposed project impacts are detailed below.

The proposed residential development project will significantly impair the biological productivity of the upper bench of the Bolsa Chica Mesa, and indirectly impact the adjacent lowland wetlands. Adverse impacts from residential development include: disturbances to wildlife, including raptors from human activity and disruptive noise due to the inadequate buffer adjacent to the Eucalyptus tree ESHA; improper use of undersized Eucalyptus ESHA and Burrowing Owl ESHA buffers for residential fuel modification; encroachment into the Burrowing Owl ESHA buffer for the construction of residential lots; and the unmitigated loss of 68 acres of raptor foraging habitat (non-native grasslands and ruderal vegetation) that is utilized by several California Species of Special Concern (CSC). The Brightwater development project features and their impacts to the various ESHA sensitive land resources of the upper bench of the Bolsa Chica Mesa and adjacent Lowlands are detailed below.



**1. Delineation of the Eucalyptus Tree ESHA and the ESHA Buffer**

Eucalyptus trees are not native to California. The trees were planted, primarily along the southern slope of the lower and upper bench, by the property owners as a wind break. Dr. Dixon notes that historically, the "eucalyptus tree" ESHA associated with the Bolsa Chica mesa has been considered to be the area occupied by the roughly linear grove of trees along the southern bluff of the mesa (Exhibit 20). Most of the trees grow along the base of the bluff in the lowlands. However, some grow on the mesa top near the bluff edge at various locations. Since most of the trees are eucalyptus, the grove is often referred to as the "eucalyptus" grove or "eucalyptus" tree ESHA. However, it is important to note the grove also includes several palm trees and pine trees that are also used by raptors and herons. None of the trees are part of a native plant community. Nevertheless, this grove of trees has been recognized as an Environmentally Sensitive Habitat Area (ESHA) for over 25 years (USFWS, 1979; CDFG 1982, 1985) because of the important ecosystem functions it provides, including perching, roosting, or nesting, for at least 12 of the 17 species of raptors that are known to occur at Bolsa Chica. Some of the raptors found to be using the grove included the white tailed kite, sharp-shinned hawk, Cooper's hawk, and osprey.

Many of these species are dependent on both the Bolsa Chica wetlands and the upland areas of the Bolsa Chica Mesa for their food. Other raptor biologists who have studied the Bolsa Chica Mesa have also found it to be particularly significant to a large number of birds of prey, including the Northern Harrier, prairie falcon, burrowing owl and the loggerhead shrike. The grove has also been recognized by the Coastal Commission as an "environmentally sensitive area" or environmentally sensitive habitat area (ESHA) as defined by Section 30107.5 of the Coastal Act in previous Commission actions. The Commission first recognized the ESHA status of the grove many years ago, and the California appellate court in 1999 did not question the designation of the Eucalyptus grove as an ESHA protected by the Coastal Act when, in 1995, the County of Orange, on behalf of the predecessor applicant, Kill Real Estate Group, attempted to relocate the Eucalyptus grove, through the LCP process, to the Huntington Mesa, in order to make room for full development of the upper and lower benches of the Bolsa Chica Mesa.

There was little or no discussion in the site-specific definition or delineation of the "eucalyptus" ESHA in the case of this non-native habitat at the Bolsa Chica. Dr. Dixon notes that the map in the 1982 CDFG report truncates the Eucalyptus Grove ESHA in a straight line that corresponds to an extension of Bolsa Chica Street. This arbitrary man-made division does not correspond to anything in nature. The trees continue as a coherent grove along the base of the mesa for several hundred feet beyond the Bolsa Chica Street line, without a gap, and raptors have been observed to use those trees. Therefore, staff has included all those trees in the ESHA maps accompanying staff reports (Exhibit 20, Figure 1). In the 2000 and 2004 recommendations, some of the trees on the mesa top adjacent to Bolsa Chica Street were also included in the ESHA maps (Exhibit

28, Figure 1). Subsequent to the October 2004 hearing, the applicant argued that the latter trees were so far distant from the rest of the grove and so separated vertically that they ought not be considered part of the ESHA. Based on the relative isolation of those trees, Dr. Dixon agreed to recommend that only the trees that were part of the coherent grove (i.e., trees in close proximity to one another) be considered as "eucalyptus" tree ESHA and altered the maps accordingly. This decision was based, in part, on the fact that trees that are part of a grove are thought to be more attractive to raptors for nesting than isolated trees because they provide a greater visual barrier for the nest. However, after agreeing to this, a pair of white-tailed kites (California Fully Protected Species) were seen nesting, this spring, in one of the pine trees at the top of the bluff near Bolsa Chica Street. And according to the applicant's biologists, currently the kites appear to be incubating eggs. Based on this use of the upper area tree by the birds, Dr. Dixon recommend that the cluster of three trees at the top of the bluff adjacent to the terminus of Bolsa Chica Street be considered part of the ESHA. And thus the residential development respect the Eucalyptus Grove buffer as explained below and as reflected in Figure 1 of Exhibit 20 and in Special Condition 10 of this permit.

As stated above, the "Eucalyptus" Grove ESHA of the Bolsa Chica mesa is unique in that it is the non-native trees that are used by numerous raptor species for nesting, roosting and perching. When the ESHA was designated there was little or no discussion of the site-specific definition or of its delineation. Dr. Dixon opines that perhaps it was because the intuitive and obvious approach was to define and delineate the ESHA by simply drawing a line between the outermost trees of the grove. The 1982 CDFG report defined the ESHA as "the eucalyptus grove adjacent to and on the Bolsa Chica mesa" and included a map with a rough outline of the Eucalyptus grove (which included palm trees) (Exhibit 20). All subsequent maps from a variety of sources have been roughly similar. Commission staff has also created ESHA maps with the same approximate boundaries and has done so by simply connecting the outermost trees. This approach proved adequate for planning purposes until recently, but now appears insufficiently specific due to the issues raised by the applicant's proposal under the current project to discharge runoff water through buried pipes that traverse the eucalyptus grove.

The current proposal is to discharge runoff from the mesa top through a new 66-inch pipe leading to the lowlands and the construction of rip-rap apron below the discharge to prevent erosion in the lowlands. This would require digging a trench across the eucalyptus grove to the adjacent lowland. The corridor proposed for the pipe contains no trees, is vegetated by non-native grasses and other weedy species, and currently contains an aboveground pipeline that is part of the oil field infrastructure. Dr. Dixon states that the placement of a subterranean pipeline over a period of a few weeks, if it is done in a manner that does not injure nearby trees, and construction takes places at a time when birds are not nesting, and Best Management Practices are employed to prevent erosion or slope instability, a "significant disruption of habitat values" would not occur and would, therefore pass the first test of Section 30240(a) of the Coastal Act. Special Conditions 8, 9, 10, 16 and 17 deal with the construction, water quality and habitat protection issues associated with the new stormdrain.

However, Dr. Dixon points out that the second test of Coastal Act section 30240 is whether the proposed use is dependent on the ESHA resource, and the installation of a pipe to convey runoff from a new residential development is clearly not so dependent (Exhibit 20). Therefore, if the Eucalyptus ESHA is the grove of trees as defined and delineated by a single, two-dimensional polygon that encompasses all the trees, plus all the area above and below the plane created by that polygon, the pipeline installation is not an allowable use. However, if the aboveground portions of the trees themselves constitute the ESHA, then the gaps between the trees are not part of the ESHA and placement of the pipe in the identified corridor would not violate Section 30240(a). Dr. Dixon states, "In addition, if appropriate Best Management Practices were employed during installation and if the corridor was subsequently revegetated, it is my opinion that the installation would not create "impacts which would significantly degrade" the ESHA and would be "compatible with the continuance" of the ESHA, and, therefore, would not violate Section 30240(b) of the Coastal Act either" (Exhibit 20, page 4). Special Conditions 9, Construction Staging Area and Fencing, Special Condition 10, Final Habitat Management Plan, and Special Condition 17, Revised Tentative Tract Map and Plans require the protection of ESHA areas during grading and construction, require the planting of all non-native or denuded areas and require the construction of a rip-rap apron below the stormdrain outlet to prevent erosion in the lowlands.

Dr. Dixon goes on to explain in Exhibit 20 how the above definition of the Eucalyptus ESHA at the Bolsa Chica is reasonable given the site specific circumstances and that this definition should not be extended to a more traditional grove or portion of a forest with native species, if it were a part of a natural vegetation community where the trees would be just one element in the community or ecosystem and the overall system would be defined by and dependent on complex interactions between the trees, the understory plant species, physical soil characteristics, soil microbes and fungi, and the host of invertebrate and vertebrate animal species that act as pollinators, dispersal agents, parasites, herbivores, and predators, among other things. This type of ESHA determination should only be made in substantially similar cases where there are non-native species or horticultural plantings where it is only the trees themselves that provide the important ecosystem functions upon which the site-specific ESHA determination is based. Given the site specific characteristics of the "Eucalyptus" Tree ESHA at the project site the Commission finds the proposed ESHA definition and delineation and stormdrain proposal, as conditioned, consistent with sections 30107.5 and 30240 of the Coastal Act.

The applicant's biological consultants have pointed out that there is always an arbitrary element in assigning dimensions to protective habitat buffers or development setbacks. Dr. Dixon admits that this is true, at one level. He goes on to say that the biological effects between a 100-foot buffer compared to a 110-foot buffer or those of a 300-foot buffer from a 328 foot (100-meter) buffer are probably indistinguishable. We tend to choose round numbers in whatever units we are using. However, the difference between the 100-foot buffer that the applicant has suggested as being amply protective or the 150-foot minimum buffer in the current proposal and the 100-meter buffer recommended by the wildlife

agencies and by staff is not arbitrary. These large differences reflect different opinions concerning the sensitivity of raptor species to disturbance and differences in opinion concerning the acceptable risk of disturbance impacts to raptors, especially raptors that have the potential for nesting at Bolsa Chica (Exhibit 20).

In an urban environment development setbacks often usually inadequate to protect all individuals of wildlife species of concern from significant impacts. In an urban setting a buffer is usually no more than one to several hundred meters and usually less whereas in a natural setting, a buffer of two kilometers has been found to be significantly more protective. Dr. Dixon cites an example of Findlay and Houlahan (1997) where a negative correlation was found between species richness in wetlands and the density of roads on land up to 2000 meters from the wetland and concluded that narrow buffer zones were unlikely to protect biodiversity (Exhibit 20, page 6).

Development must be separated from ESHAs by buffers in order to prevent impacts that would significantly degrade those areas. DFG and the USFWS previously recommended the establishment of a 100-meter buffer on the Bolsa Chica Mesa in the 1980's. Dr. Findlay, of the University of Ottawa, in a letter to the Coastal Commission dated February 9, 2000, recommended a 150-meter buffer for the Eucalyptus grove. The Coastal Commission staff ecologist recommends a minimum 328 ft. (100 meter) buffer around the Eucalyptus trees. In further studying the appropriate buffer for the Eucalyptus tree ESHA, Dr Dixon states:

The buffer around the Eucalyptus tree ESHA is particularly important if those trees are to continue to function as nesting habitat for a variety of raptors. The California Department of Fish and Game and the U.S. Fish and Wildlife Service recommended a 100-m buffer. A literature review found that raptor biologists recommended buffers for various species of nesting raptors from 200 m to 1500 m in width, with the exception of 50-m buffers from visual disturbance for kestrels and prairie falcons. . . .In an independent review concerning a prior development proposal at Bolsa Chica with 100-foot (30-m) buffers, raptor expert Brian Walton opined that developers "...often rely on buffers that I find largely ineffective for reducing raptor fright/flight response." [and] "[t]hey describe unusual tolerance, habituated individuals or exceptions to normal raptor behavior rather than the more common behavior of wild birds."

Dr. Dixon concluded, after evaluating the various case studies and independent reviews specifically of the raptor behavior of the Bolsa Chica Mesa, that a minimum 328 foot (100-meter) buffer is necessary if the Eucalyptus trees are going to function as nesting sites in the future. He further opined that larger buffers are necessary during the extraordinary disturbance that takes place during construction. If raptors are nesting, a 500-ft (152 meter) buffer should be established around the nest during construction activities. As discussed above, the Brightwater development project proposal of a varied width buffer, including a minimum of only 150 feet around the Eucalyptus grove is inadequate to protect

the ESHA from myriad human and domestic pet activities that occur when residential development is adjacent to a sensitive area.

Buffers should not be used for activities that have negative effects on the resources that are being protected. The "eucalyptus" tree ESHA is being fairly heavily used by hikers, runners, dogs, bikers, and four-wheel drive enthusiasts who use the steep slopes on the upper mesa as a test track, and more recently by youthful paintball warriors who conduct their battles within the eucalyptus grove (and occasionally cut down small trees). In fact, Dr. Dixon states, the current types and intensities of use within and adjacent to the ESHA violate the provisions of Section 30240 of the Coastal Act. Therefore, most of the raptors that currently use the trees for perching or nesting are probably from the subset of the regional population that is relatively tolerant of such human disturbance due to some combination of genetical makeup and individual history.

Dr. Dixon suggests that this be kept in mind when assessing the results of a flushing study done by the applicant's biological consultants (LSA, 2000). They found that, when their perches were approached by a pedestrian, raptors flushed at distances that varied among species, individuals, and height of the perch. The lower the perch the sooner the birds flushed. Kestrels were most tolerant of human presence, often not flushing at all (flushing range 0 – 13 m). At the other extreme the single turkey vulture approached flushed at a distance of 70 m. White-tailed kites, which are a good model for setting buffer widths because they are sensitive to human intrusion in natural settings, generally flushed when approached to 30 m. Dr. Dixon asserts that, given the current level of disturbance within the ESHA, it is reasonable to assume that these birds are relatively tolerant of human presence and these flushing distances should be considered minimums. Less tolerant birds would flush much sooner and may currently avoid many areas in the ESHA. Jurek (2000) pointed out that, "Individuals within a species may have differing levels of response to human activities, owing to variation in the population for tolerating unusual situations, or to differences in habituating to human activities out of past experience or upbringing. The same level of activity that would not adversely affect one of the habituated raptors might be perceived by a newly arrived individual of the same species in the ESHA to be threatening, causing the bird to not return there." (Exhibit 20, page 6-7).

These data indicate that the 328 foot (100 meter) buffer recommended by USFWS (1979) CDFG (1982), and by staff is not only necessary to prevent disturbance to raptors that utilize the "eucalyptus" ESHA, but is also large enough to provide significant foraging opportunities close to the nest. This is particularly important because distant foraging increases the risk of nest predation. White-tailed kites are a fully protected species in California, have frequently nested at Bolsa Chica, and are generally considered relatively sensitive to human disturbance. Therefore, Dr. Dixon recommends that buffers that are adequate to protect nesting white-tailed kites should be adequate for most of the other species that are likely to nest in the Bolsa Chica ESHA and notes that the following minimum spatial buffers have been recently recommended for nesting white-tailed kites: 100m (Bloom, 2002); 100m (Holmgren, 6/7/2002); 50m (J. Dunk (raptor researcher) in personal communication to M. Holmgren, 2002); 46-61m (with "low-frequency and non-



disruptive activities"; Froke, 2002). These estimates suggest that a 100-m buffer is probably adequate, but not overly conservative.

The applicant's biological consultants (LSA, 1999) have concluded that a "100 foot buffer will provide adequate distance to permit nesting by the most common and least sensitive raptor species in all suitable portions of the ESHA." Even if true, this is a low standard of protection and the current proposal for a minimum of 150 feet is only marginally better in the affected areas. In the same report, LSA states that, "The southern side of the ESHA will have a great deal of utility for virtually all the nesting birds, because it is bordered by hundreds of acres of open space, it will be screened from the development area by the northern edge of the ESHA, and a substantial portion of the grove is a least 100 meters from future development." Dr. Dixon's opinion of the statement by the applicant's consultant is that taken together, these statements indicate that development closer than 100 meters will reduce the utility for nesting raptors of those portions of the ESHA that are closest to the development footprint and therefore a reduced buffer would violate Section 30240(b) of the Coastal Act because the portions of the ESHA nearest the development would be significantly degraded and no longer suitable for nesting by some of the raptor species at Bolsa Chica. He recommends that the northern side of the ESHA be provided with a level of protection that is fundamentally the same as that described by LSA for the southern side and a 100-m buffer will accomplish this goal (Exhibit 20, page 8).

For the reasons cited above the proposed project can only be approved if final Habitat Management Plans are submitted showing a Eucalyptus Tree ESHA buffer of 328 ft in width as measured from the western and northern boundary of the Eucalyptus ESHA as required in Special Condition 10. The Eucalyptus Tree ESHA boundary is generally depicted in Figure 1 of Exhibit 20. Only as conditioned is the proposed project consistent with Section 30240 of the Coastal Act.

## **2. Southern Tarplant ESHA**

The Southern Tarplant is a Federal "Species of Concern" and listed as a 1B (Rare, Threatened, or Endangered in California and Elsewhere) plant by the California Native Plant Society (CNPS), and it also meets the CEQA Guidelines' definition of rare, threatened, or endangered species. Southern Tarplant is an annual plant that favors damp, disturbed areas and is generally restricted to grasslands, wetland edges, vernal pools, and alkaline flats in the coastal counties of southern California and has been greatly reduced and populations have been fragmented by development. According to Dr. Dixon, Southern Tarplant has become rare in California and its remaining habitat is particularly valuable due to the loss of its natural habitat. The Department of Fish and Game further noted in their January 16, 2002 EIR comments on the proposed project, that one of the characteristics of the Southern Tarplant is that, as an annual (life cycle is completed within one year), the number of detectable (above-ground flowering) plants visible in any one year vary sharply depending on factors such as soil moisture. Because of this characteristic of the plant, quantifying populations and determining the impacts of a



development project on existing tarplant communities can be problematic. Therefore, the long-term health of the tarplant population depends on an extensive seed bank.

The applicant's consultant conducted tarplant surveys of both the upper and lower benches in 1999, 2000, 2001 and 2002. The largest concentration of tarplant by far is on the lower bench; however, the upper bench also contains several sizeable patches of the sensitive plant (Exhibit 16). Dr. Dixon notes that based on the applicant's surveys, the tarplant tends to be much more widely distributed among the habitats on the lower bench than on the upper bench where it is almost entirely confined to the area surrounding the seasonal pond adjacent to the Los Patos wetland. There may be habitat differences between the upper and lower benches that account for this phenomenon. Southern Tarplant is most abundant near trails and other open disturbed areas. Scattered individual plants on the upper bench do not constitute ESHA because over the four-year survey period these plant populations have remained only a few scattered individuals. However, the Tarplant populations around the Los Patos wetland on the upper bench should be considered ESHA because these more dense populations have persisted during the survey period and Southern Tarplant has become rare in California due to the loss of its native habitat and therefore its remaining habitat is particularly valuable. As stated above, Southern Tarplant is a Federal "Species of Concern" as well as a California Native Plant Society "1B species" (rare, threatened, or endangered in California and elsewhere). Similarly, the patches of tarplant near the western edge of the development area are part of the extensive population on the lower bench and are part of the ESHA. The southern tarplant at Bolsa Chica is one of the more significant populations in terms of numbers in southern California, according to Dr. Dixon. As environmentally sensitive habitat areas, the tarplant populations must be preserved in place and cannot be eliminated or translocated in order to use their existing locations for residential use.

The October 2004 Brightwater development proposal would have eliminated two of the existing ESHA populations of Tarplant within the then proposed 28-acre Upland Habitat Park, and a third tarplant population located in the area of the then proposed 2.5-acre private recreation center surrounding the existing Los Patos seasonal wetland would also have been eliminated. The applicant later proposed to translocate the Tarplant that was within the footprint of the private recreation center and the park elsewhere on the upper bench instead of onto the lower bench as with the original proposal. The proposed On-Site Preservation/Translocation Plan was also inconsistent with section 30240(a) of the Coastal Act. Section 30240(a) of the Coastal Act does not allow impacts to existing ESHA, even to move or translocate it adjacent to its current location. Further, as explained above, the Tarplant exists where it is currently located because the soil conditions and other factors and there is no guarantee that the plants will survive in a new location. Habitat that qualifies as ESHA under the Coastal Act must be protected in place, except under limited situations not applicable here, pursuant to Section 30240 of the Coastal Act. Only resource dependent uses are allowed within areas designated as ESHA.

The Southern Tarplant populations that constitute ESHA must also be protected from adjacent development with an adequately sized buffer. The Commission's staff ecologist recommends that a 50-foot buffer be established adjacent to the ESHA boundaries defined by the presence of tarplant. The Commission has used such a buffer to protect sensitive vegetation in past actions, consistent with Section 30240(b) of the Coastal Act. The current Brightwater development project now proposes to retain in place the Southern Tarplant adjacent to the Los Patos Wetlands, which has been determined by the Commission's staff ecologist to be ESHA under Section 30107.5 of the Coastal Act. Subsequent to the October 2004 Commission hearing the applicant's consultant went back to the project site to verify and refine the Tarplant mapping using GPS and aerial photos and original field notes and Los Patos seasonal pond or wetland and submitted that information to staff (Exhibit 16a). The Commission staff biologist now agrees with the delineations of the Southern Tarplant ESHA and the Los Patos Wetland. The applicant is also proposing a 100-foot wetland buffer and a 50-foot Tarplant buffer and the preservation of the area through the proposed 3.2-acre Southern Tarplant and Seasonal Pond Environmental Protection Area. However, there will be unavoidable, onetime impacts to the Southern Tarplant and wetland buffers for the construction of the 1.2 million underground water reservoir. The underground facility has been reduced from its previous size of 2.1 million gallons and has been redesigned such that future access to the facility will be from outside of the buffer area. Once construction is complete the area will be revegetated.

Although the applicant is proposing to preserve all Southern Tarplant and the wetlands and provide appropriate buffers, no revegetation, monitoring or maintenance plan for the 3.2-acre Southern Tarplant and Seasonal Pond Environmental Protection Area was submitted. Therefore, the Commission imposes Special Conditions 10 and 17 require that a habitat management plan and revised plans be provided for the Southern Tarplant/Seasonal Pond area that includes the plant palette and maintenance and monitoring, similar to the other onsite habitat areas. The habitat preservation area will also need to be managed and maintained in perpetuity. Special Conditions 2 and 4 require that this be carried out. Only as conditioned is the proposed project consistent with Sections 30233 and 30240 of the Coastal Act.

### **3. Burrowing Owl ESHA**

One of the sensitive raptor species that uses the Bolsa Chica mesa is the burrowing owl. The Department of Fish and Game (DFG) considers the burrowing owl (*Athene cunicularia*) a California Species of Special Concern. It hunts for prey in open grasslands and areas of ruderal vegetation. The current proposed Brightwater project will impact 68 acres of such habitat. In addition to foraging over the grasslands, the burrowing owl uses the abandoned burrows of the California ground squirrel and other small rodents as shelter during the nesting and wintering seasons. The burrowing owl is in decline in most areas of California, especially in the coastal zone due to the loss of habitat as a result of

development and rodent control activities. The rapid decline of this species in Orange County has been chronicled in the latter half of the 20<sup>th</sup> century.<sup>7</sup>

The Brightwater development site contains many burrows that have probably been used by the burrowing owl. One or two wintering birds are thought to use the Bolsa Chica Mesa, as evidenced by repeated observations of one owl or two owls in the winters of 2001-2002 and 2002-2003 by the applicant's biologists (Exhibit 17a). However, it is believed that the Bolsa Chica Mesa is used by an unknown number of migrant burrowing owls as a stop-over foraging area, according to Dr. Dixon's communications with other raptor biologists. It is raptor biologist Peter Bloom's professional opinion that migrant and wintering burrowing owls use the Bolsa Chica Mesa during most years. The Bolsa Chica Mesa is one of the few areas in the region that still has the potential for nesting by this species in the future. Additionally, the burrowing owl is one of three species of raptors at Bolsa Chica that DFG biologist Ron Jurek thinks is most in need of habitat protection. Based on this information, Dr. Dixon has determined that the area on the Bolsa Chica Mesa as mapped by the applicant's biologist as burrowing owl habitat constitute an ESHA as defined by the Coastal Act, and therefore also should be protected as required by the Coastal Act. The Commission agrees. Additionally, the DFG, in its January 16, 2002 comments on the project EIR, recommended that the burrowing owl habitat on the upper bench be retained, if feasible.

Upon receipt of the applicant's mapping showing the burrowing owl habitat location, at the request of Commission technical staff, planning staff suggested that the applicant again review the submittal of the mapped burrowing owl use area. It appeared to staff that the area might have been drawn overly broad. The applicant however did not alter the map of burrowing owl primary roosting areas. However, several months later, the applicant did survey the project area for potential burrow habitat. On June 15, 2004, the applicant's consultant, LSA, submitted the results of a survey taken on June 2, 2004 (Exhibit 17). The applicant's June 2004 survey of ground squirrel activity found approximately 130 ground squirrel burrow locations, providing a rough approximation of how squirrels and their burrows are distributed on the site, as explained by the consultant. The highest use areas were areas where there is a break in topography; at the edge of the slope of the upper mesa on the west and at the bluff edge on the south and on the bluff edge of the lower bench overlooking Outer Bolsa Bay and the lowlands on the southeastern bluff edge of the lower bench. LSA concluded that, "the best way to offset potential impacts to burrowing owl habitat would be to enhance owl habitat suitability somewhere on the lower mesa where human disturbance could be managed".

In reviewing the October 2004 Brightwater development proposal Dr. Dixon however recommended that the Commission use a similar approach in identifying the Burrowing Owl ESHA on the Bolsa Chica as it did in a recent project in the South Central Coast District, the Arco Dos Pueblos Golf Links (December 11, 2002 Commission Hearing). In

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<sup>7</sup> Hamilton and Willick (1996) and Gallagher and Bloom (1997), according to Draft Subsequent Environmental Impact Report, Volume I, Brightwater Development Project, Orange County, California, SCH #1993071064, LSA, November 17, 2001, page 4.9-21.

that case, the Commission designated only trees known to have been used by white-tailed kites for nesting or perching and adjacent trees as ESHA. In the case of Brightwater, LSA Associates has identified the area containing burrows known to be used by wintering burrowing owls. Burrowing owls tend to reuse burrows year after year and an area should be considered occupied if at least one burrowing owl has been observed occupying a burrow there within the last three years, according to the California Burrowing Owl Consortium and the Department of Fish and Game. Therefore, the LSA field observations were good evidence of occupied habitat, and Dr. Dixon recommended that the Commission designate as ESHA the area mapped by LSA as the "Primary roosting areas used by wintering burrowing owls". This LSA mapping is shown in Exhibit 17a and is reflected in Figure 1 of Dr. Dixon's March 28, 2005 memo (Exhibit 20).

Following the October 2004 Commission meeting the applicant's biological consulting team presented staff with alternative mapping of the owl use area based on the observations of the original surveyors (Exhibit 17b). They suggested a revised burrowing owl use area by compiling their observations of the bird from October 17, 2001 through April 21, 2003. The "burrowing owl use area" was revised to be a smaller area by eliminating one burrow where one bird had been seen once, but abandoned the burrow in favor of another one. Evidence of abandonment was spider webs and debris at the burrow entrance. Finally, the date of the observation of November 2001 just exceeds the Consortium's three year criteria for considering a burrow to be occupied. For these reasons the Commission's staff ecologist recommends that the Burrowing Owl ESHA be delineated as shown on the applicant's November 17, 2004 submittal. Although there is merit in accepting the applicant's a reduced Burrowing Owl ESHA delineation as proposed by the applicant, there is no justification for the proposed reduction in the Burrowing Owl ESHA buffer.

As discussed in Section D.1 of this report, buffers serve several important functions. Section 30240(b) of the Coastal Act requires that ESHA be protected from adjacent development. In order to avoid disturbing burrowing owl habitat, the California Burrowing Owl Consortium and the California Department of Fish and Game recommend 164 foot (50 meter) buffers during the non-breeding season, 264 foot (75 meter) buffers during the breeding season, and a minimum 6.5 acres of foraging habitat maintained adjacent to the burrows. However, given that the existing use of the Bolsa Chica mesa is by wintering and migrant birds, the Commission finds that a 164 foot (50 meter) buffer is adequate to protect the Burrowing Owl ESHA. However, as conditioned in Special Condition 5, the applicant must abide by the "Burrowing Owl Survey Protocol and Mitigation Guidelines" by California Burrowing Owl Consortium to determine if there is any occupation of the burrows of the Burrowing Owl ESHA. Further, the proposed project also includes grading in the Burrowing Owl ESHA buffer for the construction of the residential lots and permanent irrigation within the first 50 feet of the 164 ft. buffer. Grading to support residential development and the extension of residential land use are not allowed in habitat buffers, As conditioned herein, residential grading is not allowed within the 164 foot buffer. Only as conditioned in Special Condition 10 to submit revised habitat management plans for a 164 ft. wide Burrowing Owl buffer to allow only that grading in the Burrowing Owl buffer for the

removal of existing roads so that the area can be restored with native vegetation, for the public trail in the upper 25 ft of the buffer and any necessary water quality treatment facilities, and planting and maintaining of the buffer for habitat purposes consistent with the approved fuel modification and habitat management plans can the project be found consistent with Section 30240(b) of the Coastal Act with regards to the provision of an adequate buffer to protect the Burrowing Owl ESHA.

#### **4. Annual Grassland and Ruderal Foraging Habitat**

The vegetation type on the project site is predominantly non-native annual grasslands and ruderal vegetation. Of the 105.3-acre development area, 82.6 acres of open vegetated areas are dominated by annual grasslands (55.9 acres) and ruderal grassland/forb (26.7 acres), according to the project EIR. Although annual grasslands and ruderal vegetation are generally not considered to be sensitive resources because of the exotic character of the dominant species, these habitats nevertheless provide important support for many native species of plants and animals. This habitat type is particularly important as foraging habit for many species of birds of prey and it is being rapidly replaced by development in much of coastal southern California. At the Bolsa Chica mesa, the annual grassland and ruderal vegetation provides critical support for the many species of birds that use the Eucalyptus and palms trees along the bluff edge for perching, roosting and nesting. Without adequate foraging habitat nearby, the existing Eucalyptus grove of the Bolsa Chica Mesa would not continue to function as ESHA.

In the past, little concern has been expressed nor any actions taken about the loss of annual grasslands and ruderal vegetation given their status as non-native habitat. However, in recent years, with the increasing loss of native prairies, it has come to the attention of the Department of Fish and Game and other raptor biologists that the remaining non-native annual grassland and ruderal vegetation are becoming a critical food source which is essential to the health of populations of many birds of prey and other native species. For this reason, DFG has recommended mitigation under the California Environmental Quality Act for the loss of such non-native habitat. In over 60 recent actions, DFG has required preservation of foraging habitat at a ratio of 0.5 acres preserved to each acre lost to development. At Bolsa Chica, the foraging habitat on the mesa is absolutely necessary for the continued presence of many of the raptors that utilize the Eucalyptus ESHA. Furthermore, concerning the interconnectedness of the foraging habitat and the Eucalyptus ESHA, DFG biologist Ron Jurek wrote, in an October 2000 independent review of the potential effects of development on raptors of the Bolsa Chica Mesa, that the Eucalyptus ESHA "...is a zone of trees with good perching and nesting conditions within raptor habitat. It is not the raptor habitat itself. In my professional opinion, for most of the raptor species known to use the ESHA, raptor use depends primarily on the availability of the food resources of the surrounding lands...."<sup>8</sup>

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<sup>8</sup> Jurek, R. (CDFG; Member, Independent Review Committee appointed by CCC, CDFG & Hearthside Homes). October 16, 2000. Letter to S. Hansch (CCC) concerning probable effects of development on raptors at Bolsa Chica Mesa.



As proposed, the Brightwater development project would eliminate 68 acres of annual grassland and ruderal habitat, combined. In approving the development, the County of Orange also adopted the project's subsequent EIR. The EIR states that the proposed loss of foraging habitat will not be significant considering the existence of the remaining habitat on the mesa and in the region. The Commission notes that of the existing grassland and ruderal habitat on the upper bench of the Bolsa Chica Mesa, the Brightwater development project eliminates all but 1.5 acres of grassland and all but 6 acres of ruderal vegetation. Therefore the EIR statement must be referring to the grassland and ruderal habitats remaining on the lower bench of Bolsa Chica Mesa. However, the Commission notes that the lower bench is not before the Commission given that the applicant has refused to include it in this coastal development permit application. There is no guarantee that the lower bench will be sold for conservation purposes.

Moreover, even if the lower bench were to be preserved, the Commission believes that the loss of nearly 70 acres of annual grassland and ruderal habitat directly adjacent to the Eucalyptus Tree ESHA would still be a significant loss. For the reasons stated in the extended quotation listed below, the impacts on the raptors is likely to be directly related and proportional to the size of the vegetation removed, regardless of the presence of similar vegetative communities nearby. In fact, if anything, the ratio should be higher here, due to the particular significance of the Bolsa Chica Mesa to a great variety of raptors. The special importance of the Eucalyptus trees and adjacent foraging habitats to many species of nesting and wintering raptor species has been recognized by the wildlife agencies for over 20 years.

The project EIR also suggested that the loss of foraging habitat would not be significant based on a statement of another October 2000 independent reviewer of the Bolsa Chica Mesa, Brian Walton, that concluded that the overall population status would not be changed for any species of raptor at Bolsa Chica. Although this statement is true, Dr. Dixon points out that this standard is not adequate in the context of resource conservation and states, "it would be a very low standard that ignores the local or regional significance of a species' presence. It simply means that the viability of the species in California is unlikely to be measurably decreased by local losses. Similar claims can be made of impacts even to many endangered species where the loss of a few individuals is unlikely to push the species to extinction. That fact is, however, not a compelling argument for additional impacts". In fact, Mr. Walton did not intend to suggest that the raptor habitat at Bolsa Chica was unimportant. This is obvious in the following excerpts from Mr. Walton's letters to the Department of Fish and Game and to the Coastal Commission:

Pete [Bloom] and I have studied raptors in coastal California for the last 25+ years. No one else can say that. We still feel that the raptors and the Bolsa Chica habitat are important. That has been a consistent opinion for nearly 20 years from the only two people who have been continuously focused on these species in these locations.

During that period ... the rest of Orange County has largely been paved over and upland grasslands near coastal wetlands are almost non-existent. Hence, it would be



likely that the opinions we had in 1982 on the importance of this habitat are even more relevant in 2000. I have difficulty in understanding why any development is allowed to occur in this area.

and:

The clearest case where development is impacting raptors and their prey species but where the Commission still is uncertain of the real impact on raptor populations, is in Orange County. There, most raptor species have been completely eliminated from the coastal zone as breeders and most of the region has vastly reduced wintering population range. Even still, the last bit of available open space (Bolsa Chica) is being considered for some development, with the idea that the remaining raptors will move elsewhere or not be impacted, or live in remnant open space within the developed area.

It is not accurate, in fact, that individual raptors when impacted by development simply move elsewhere and everyone survives. If that were true, there would be areas of incredible density in non-developed areas, where the impacted raptors have moved and are now living with pre-existing birds. This philosophy would be analogous to thinking that if you tore down one of two adjacent apartment buildings, that all the residents would simply move into the remaining building and live two families to an apartment. The density of raptors is dependent on a variety of things, so birds cannot actually just get denser in adjacent areas by moving off development sites.

Given the above facts concerning the importance of grasslands and ruderal habitats for the proper functioning of the adjacent Eucalyptus ESHA for the many raptors that use the Bolsa Chica Mesa, a decision has to be made as to whether these vegetative communities themselves constitutes ESHA as defined by the Coastal Act. Dr. Dixon outlines the issues that have to be factored when making such a determination. Although the raptor foraging habitat at Bolsa Chica is clearly of high ecological value because of its context in maintaining the raptors, including the burrowing owl, the non-native habitat alone does not constitute ESHA. However, its loss as contemplated in the proposed Brightwater development project would clearly be inconsistent with Section 30240(b) of the Coastal Act, which prohibits development adjacent to ESHA that would significantly degrade the ESHA. As discussed herein, the importance of foraging habitat is clearly such that the loss of a large amount at Bolsa Chica would result in "impacts which would significantly degrade" the adjacent Eucalyptus Tree ESHA such that it would no longer be especially valuable to birds of prey. Therefore, to be in compliance with Section 30240(b) of the Coastal Act, development must be sited such that this does not occur.

Because of the significant adverse effects of development on raptor foraging habitat, Dr. Dixon suggests that the Commission follow the recommendation of the Department of Fish and Game and seek mitigation for annual grassland and ruderal foraging habitat on the Bolsa Chica Mesa by preserving 0.5 acres of such habitat for each acre lost to development. Preservation preferably should be on the project site adjacent to the

Eucalyptus Tree ESHA and could reasonably include the recommended buffer areas for the Eucalyptus trees and for the burrowing owl habitat described above.

To mitigate the loss of 68 acres of annual grassland and ruderal vegetation the applicant would need to provide 34 acres of habitat, preferably on-site by widening the Eucalyptus and Burrowing Owl ESHA buffers and planting them with native grassland species. As conditioned to widened these buffers and remove the restriction on the plant palette from all but the first 50 feet of the buffer closest to the homes, to plant the majority of the remainder of the buffer in native grassland species and to provide the remainder off-site of the 34 acres in native or non-native grassland that cannot be provided on-site, consistent with the final approved final habitat management plan, the proposed project is consistent with the Coastal Act concerning the protection of raptor foraging habitat.

#### **5. Biological Impacts of Fuel Modification on the Eucalyptus Grove ESHA**

Although the proposed project is not located within a high fire danger area, the proposed homes are of concern to the Orange County Fire Authority (OCFA) due to the presence of the existing Eucalyptus trees located primarily on the southern bluff face of the upper bench of the Bolsa Chica Mesa. Eucalyptus trees are highly flammable and are not normally allowed to be planted or retained within 170 feet of habitable or combustible structures. OCFA has prepared Fuel Modification Guidelines for development in areas where there is the potential for damage to life or property due to fire. The Guidelines do however allow special consideration for rare and endangered species, geologic hazards, tree ordinances, or other conflicting restrictions as identified in the environmental documents. OCFA Fuel Modification Guidelines are as follows:

**Zone A** – provide a minimum 20 feet wide level graded area at the top or base of slope and immediately adjacent to the protected development, no combustible structures, fully irrigated with automatic irrigation system, all vegetation shall be highly fire resistant and shall not include undesirable combustible vegetation.

**Zone B** – provide a minimum 50 feet wide irrigated area and must be planted with plants from the approved OCFA Plant List. No combustible construction is allowed.

**Zone C and D** – are considered the non-irrigated, thinning zones. Zone C is 50 feet in width and requires 50% thinning with removal of all dead and dying undesirable species. Zone D is 50 feet in width and requires 30% thinning with removal of all dead and dying growth and undesirable species. Specific requirements for these zones include: all fuels be reduced to a maximum of 8-12 inches in height and native grasses, when used, shall be cut after annual seeding and shall not exceed 8 inches in height. All plants within these zones must be chosen from the approved OCFA plant list. Trees which are being retained with the approval of the agency having jurisdiction shall be pruned to provide clearance of three times the height of the under story plant material or 10 feet, whichever is

higher. Dead and twiggy growth shall also be removed. All existing plants or plant grouping except cacti, succulents, trees and tree-form shrubs shall be separated by a distance of three times the height of the plant material or 20 feet, whichever is the greater.

The applicant has designed the proposed subdivision such that the residential lots are as close to the bluff edge as possible in order to maximize the use the upper bench for residential development and to maximize ocean and wetland views of the future homes owners. The existing Eucalyptus grove is located primarily along the bluff face with very few trees on the bluff top. The residential lots are set back 150 to 382 feet away from the Eucalyptus trees. Because no combustible structures can be located within 170 feet of the Eucalyptus trees the 20 foot wide Fuel Modification Zone A is on the rear yards of the residential lots. Because the Eucalyptus trees are on the bluff face, the set back distance between the trees and the homes represent both vertical and horizontal distance and appears to be based on what is allowable under OCFA Guidelines as opposed to what is necessary to protect the viability of the Eucalyptus grove for continued raptor nesting, roosting and perching habitat, as is required by Section 30240 of the Coastal Act. Where the bluff is steepest and the trees are furthest away from the residential lots the setback from the bluff edge is no more than 100 ft (Exhibit 12).

Initially the entire area was proposed as Eucalyptus Tree ESHA buffer and the applicant assured staff that OCFA would approve the habitat restoration and preservation plan because the native plants that were chosen were all low growing, low fuel load and could be sustained on their own after establishment with temporary irrigation (2-5 years). Staff was later told by the applicant that OCFA is requiring that the first 50 feet closest to the homes be permanently irrigated in order to avoid drought conditions. On March 11, 2005 staff received from the applicant a revision to the project description concerning the width of the Eucalyptus Tree ESHA buffer and a 4 page Conceptual Plan OCFA Protection Zones and Program Description (Exhibit 4). Based upon OCFA requirements, the applicant has further reduced the ESHA buffer by 50 ft. and this 50 foot area will now become Zone B Ecotone Management area, to be permanently irrigated for interim establishment and drought conditions. The March 11<sup>th</sup> letter states that although the applicant wishes to remove this area from the habitat buffer that it will function no differently. The applicant argues that although the area will be managed to protect future homes from fire damage, that it will function almost identical to the adjacent "pure" habitat buffer. The applicant notes that both the ecotone management area and the habitat buffer will be planted with a controlled palette that allows only low-growing, low-fuel natives. If any other native plants colonize the area they will have to be removed. Although staff has yet to receive written confirmation of approval from OCFA of the latest conceptual fuel modification plan received on March 11, 2005 or the original habitat creation and monitoring plan received on January 21, 2005, the applicant contends that neither area will have to be managed in the traditional manner of mowing, thinning or pruning or other mechanical maintenance activities.

Clearly the ecotone management area is being designed and maintained as support for the adjacent residential development. Native plants do not need to be permanently irrigated to buffer native habitat from other development. Indeed, the adjacent "pure" buffer is not being permanently irrigated. The Department of Fish and Game (DFG) in their review of the previously proposed October 2004 fuel modification program expressed concerns over the non-compatible goals of habitat protection and fire protection for adjacent habitable structures. DFG noted in its April 24, 2003 review of several documents associate with the proposal that, a modified plant palette had been prepared to avoid native coastal sage or coastal bluff scrub species prohibited by the County's list of undesirable species including California sagebrush (*Artemisia californica*) and other common coastal sage scrub species. Also cited by DFG was the irrigation of coastal sage scrub (css) that was being protected in place and the normal requirement that css vegetation be thinned and removed as stated above in the Zones C and D requirements. Concern was also expressed over the limited list of species proposed for the then proposed coastal prairie plant community, especially given the abundance of non-native grasses and forbs that would have competed with this new habitat. DFG suggested that additional local native species be added to the coastal prairie palette in order to increase native diversity and include native coastal grassland species that are more disturbance adapted. Finally, DFG commented on the likely results of the introduction of irrigation, mowing, thinning and other habitat disturbance that would have been created by using the upland habitat park, including the Eucalyptus ESHA buffer, for fuel modification purposes. Specifically cited examples are the negative alterations of native arthropod communities and vegetation thinning requirements requiring the removal of species such as California sagebrush. In the previous application DFG ultimately concluded, after an exchange of several rounds of clarifications between the applicant's biological consultants, that the Eucalyptus ESHA would not be adversely affected if all of the specific construction and management activities of the conceptually approved fuel modification plan were followed. Nonetheless, DFG also stated that they "do not consider fuel modification zones, regardless of their native species content, to be considered acceptable as mitigation for biological impacts. "While the applicant has yet to receive DFG approval of the current habitat creation and monitoring plan, many of the same concerns are present in the instant application.

Section 32040(b) requires that development adjacent to ESHA be sited and designed such that significant impacts to the ESAH are prevented and that the adjacent use be compatible with the continuation of the habitat area. Based on this Coastal Act provision, Commission staff ecologist is prepared to recommend that the Commission approve limited fuel modification development in the habitat buffer. First the Eucalyptus Tree and Burrowing Owl buffers would have to be widened as recommended above, for the reasons set forth above before development to support an adjacent use could occur within the habitat buffers. Secondly, the plant palette should only be restricted within the first 50 feet closest to the residential lots where permanent irrigation is also proposed by the applicant. Periodic mowing (every 3-5 years) within that 50 foot area could also occur as well as within the next 50 ft area closest to the homes. However, the plant palette must not be restricted beyond the 50 foot area closest to the homes nor should permanent irrigation

occur beyond this point. The plant palette must contain species appropriate to a native California grassland community in coastal Southern California on the relatively flat mesa top area. Pruning and thinning and all other fuel modification activities are prohibited in the habitat buffers except for temporary (3 to 5 years), above ground irrigation if needed for establishment of the native plants. Only as conditioned to prepare a revised fuel modification plan that is consistent with these terms and the requirements of the final habitat management plan is the proposed project consistent with Section 30240(b) of the Coastal Act.

#### **E. PUBLIC ACCESS AND RECREATION**

The provision of public access in new development proposals is one of the main tenants of the Coastal Act, especially in conjunction with new development located between the sea and the first public road, such as the subject project. The 225-acre Bolsa Chica Mesa is located between the first public road and the mean high tide of the sea. At roughly 50 ft. above mean sea level, spectacular views of the wetlands and the associated wildlife and uninterrupted views of the Bolsa Chica State Beach and Pacific Ocean are available from the upper bench of the Bolsa Chica Mesa. Santa Catalina Island is also often visible from the project site. The Bolsa Chica Wetlands at approximately 1,000 acres is the largest remaining wetland in Southern California. Following the 1997 State acquisition of most of the remaining wetlands that were under private ownership, a comprehensive Bolsa Chica wetlands restoration effort is now underway. Given the prominence of the adjacent Bolsa Chica wetlands, appropriate public access and passive recreational opportunities must be provided and conspicuously posted. Further, the Coastal Act gives priority to land uses that provide opportunities for enhanced public access, public recreation and lower cost visitor recreational uses.

#### **Section 30210 Access; recreational opportunities; posting**

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.

(Amended by Ch. 1075, Stats. 1978.)

#### **Section 30211 Development not to interfere with access**

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

#### **Section 30212 New development projects**

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) Adequate access exists nearby, or, (3) Agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

(b) For purposes of this section, "new development" does not include:

(1) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.

(2) The demolition and reconstruction of a single-family residence; provided, that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.

(3) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.

(4) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not a seaward of the location of the former structure.

(5) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.

As used in this subdivision "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

(Amended by: Ch. 1075, Stats. 1978; Ch. 919, Stats. 1979; Ch. 744, Stats. 1983.)

#### **Section 30212.5 Public facilities; distribution**

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 Lower cost visitor and recreational facilities; encouragement and provision; overnight room rentals**

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

The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

(Amended by: Ch. 1191, Stats. 1979; Ch. 1087, Stats. 1980; Ch. 1007, Stats. 1981; Ch. 285, Stats. 1991.)

The previously proposed Brightwater development project did not provide for maximum public access to and along the bluff where views of the coast are available, as required by the Coastal Act. The project included a 28-acre upland habitat park and a 0.6-mile long paved pedestrian/bicycle trail, bicycle racks, benches, a kiosk and interpretive information along the slope and bluff face. The park was to be dedicated to the County Department of Harbors Beaches and Parks. However, despite the provision of these recreational amenities, general public access to the amenities was limited. The subdivision was designed with guard-gated entries and general public vehicular access was not allowed within the residential community. The extension of a separate public road on the eastern project boundary (Bolsa Chica Street) was the only public entry into the entire 105-acre site where 30 public parking spaces were proposed. Further, notice to the public of the availability of the recreational amenities was inadequate. Public access provisions to the recreational amenities were inconsistent with the Coastal Act mandate of maximizing public access opportunities. As proposed, several aspects of the recreational amenities and public parking lot also significantly adversely impacted environmentally sensitive resources of the site.

The currently proposed project has vastly improved public access provisions. The residential subdivision is no longer proposed as a gated private community. The guard houses and gated entryways have been eliminated and public vehicular access is no longer prohibited. The public will now be able to drive, bicycle or walk into and throughout the community, park along any subdivision road, and use all three of the proposed paseos or vertical walkways leading to the passive habitat park and trail. The public parking lot within the habitat park has been eliminated. The project frontage road, Los Patos Avenue, will also be widened, paved and landscaped and provides the opportunity for 114 additional on-street parking spaces. The trail has also been reduced from a 12-foot wide paved pedestrian/bicycle facility to a more environmentally friendly, 6-foot wide decomposed granite pedestrian only trail. Although these changes have been significant and have brought the proposed project more in line with the Coastal Act public access and recreation mandates, additional changes are necessary.

The off-site signage informing the public of the availability of the proposed park is located at Warner Avenue and Bolsa Chica Street. No signage of informing the public of the habitat park and trail is provided at the community entrance at the intersection of Warner Avenue and Los Patos Avenue. The existing publicly owned Bolsa Chica Ecological Reserve parking lot is located at Warner Avenue and Pacific Coast Highway. Many visitors from outside of the local area use this parking lot to enjoy the wetlands. This would be a good location for informing the public of the proposed upper bench trail and passive habitat park. The applicant should work with the Department of Fish and Game, managers of the Ecological Reserve, to include public signage and printed information concerning the upland habitat park, at the Ecological Reserve parking lot and in Ecological Reserve literature. To further appropriately maximize public access and enjoyment of this significant coastal resource, the applicant shall also install benches, interpretive signage and trash receptacles along the trail.

Public access and opportunities for public recreation are given priority in the Coastal Act over private residential development. Therefore, the public access and passive public recreation amenities must be constructed and open for public use prior to or concurrent with private residential use of the site. According to the applicant, the plan is to have the State Lands Commission take over ownership of the habitat park and trail. However, the trail and the portion of the habitat park closest to the residential development would be managed and maintained by the homeowners association for public access, passive recreation, habitat protection and approved fuel modification purposes through a management and maintenance easement. Only as conditioned for the additional public access signage, the provision of benches, interpretive signage and trash receptacles, dedication of the habitat park and trail to the State Lands Commission, other public agency or non-profit agency for habitat, public access and passive recreational purposes, and a management and maintenance easement in favor of the homeowners association is the proposed project consistent with the public access and recreation policies of the Coastal Act and the Commission is assured that these facilities will be preserved for these uses and managed and maintained in a manner that is also protective of the adjacent environmentally sensitive habitat areas.

As detailed in the Cultural Resources section of this staff report, the entire Bolsa Chica area as well as the project site has a rich prehistoric and historic past in terms of its use and occupation by Native Americans. Two mapped archaeological sites, ORA-83 and ORA-85 are located on the project site. Although the landowner has received several coastal development permits over the last 20 years to carry out archaeological investigations and data recovery and salvage, the cultural heritage of the site should be recognized and made known to visitors. The applicant proposes that a portion of ORA-83, known as the Cogged Stone site, be placed in permanent open space and accessible to the public as a part of the Eucalyptus Grove ESHA buffer that will be restored with native grassland and preserved. Placing interpretive signage along the habitat trail at the site, as conditioned, informing the public of the rich cultural history also provides partial mitigation

for the removal of the cultural resources that were permitted to be removed from the project site consistent with Section 30244 of the Coastal Act.

## **F. SCENIC AND VISUAL RESOURCES**

The Coastal Act seeks to minimize the alteration of natural bluffs and cliffs in the coastal zone in order to protect the scenic views to and along the coast and throughout coastal areas generally. Section 30251 of the Coastal Act states:

### **Section 30251 Scenic and visual qualities**

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.

#### **1. Existing Geomorphology and Past Development Activities**

The Brightwater residential project site is located on the upper bench of the Bolsa Chica Mesa and the slope between the upper and lower benches. The proposed residual parcel is located on the lower bench, at the toe of the slope separating the two benches (Exhibit 15). Existing ground elevations on the upper bench range from 30-50 ft. above mean sea level (MSL). The surface elevation of the lower bench is 10-30 ft. above MSL. The two benches are separated by a slope approx. 25 ft high with an average gradient of 10-15%. Also at the toe of the slope, running parallel to it, lies the surface trace of the Newport-Inglewood fault, suggesting that the slope is a "fault line scarp", created by differential movement across the fault. According to the Commission's staff geologist, Dr. Mark Johnsson, the Bolsa Chica Mesa is one of the few places in Orange County where a fault line scarp can be observed. Grading and urbanization have destroyed most fault line scarps associated with the Newport-Inglewood fault zone.

The southeastern bluff edge of the project site has a steeper gradient than the slope separating the upper and lower benches. The bluff face averages 45% slope with some areas being near vertical. At the toe of the southeastern bluff edge is the Isolated Pocket Lowland and the EGGW Flood Control Channel. The southeastern bluff was formed by fluvial erosion by the Santa Ana River when its alignment flowed in this part of the lowlands. The natural topography of the Bolsa Chica Mesa has been modified over the past 100 years. Previous activity includes agricultural use, the grading of access roads for the construction of oil wells and oil/gas pipelines, construction (in the early 1940's) and demolition (in the 1990's) of two World War II gun emplacements or concrete bunkers and water cisterns, archaeological investigation, and excavation of portions of the bluff and slope edges to be used for fill for development in the City of Huntington Beach. All of the

past development, with the exception of the demolition of the WW II bunkers and the later archaeological investigations, was done prior to the Coastal Act.

Development on the Bolsa Chica Mesa pursuant to coastal development permits approved by the Coastal Commission include, the demolition of the WW II bunkers and water cistern in 1991. Several archaeological investigation and data recovery has also occurred on the Bolsa Chica Mesa pursuant to coastal development permits issued between 1983 and 1990, as detailed in Section I, Cultural Resources, of this staff report.

## **2. Bluff/Slope Edge Delineation**

Commission staff and the applicant spent several conversations and written correspondence dealing with the location of the bluff edge of the upper bench of the Bolsa Chica Mesa. The applicant contends that because of the prior activity on the mesa, including alterations to the slope and bluff edges, that they do not constitute natural landforms. The Commission staff geologist disagreed with this assessment and continued to ask for a delineation of the top-of-slope. In addition, identification of the top-of-slope is relevant to an evaluation of the safety of the proposal irrespective of whether or not the slope constitutes a natural landform. The applicant also argues that the slope separating the upper and lower benches of the Bolsa Chica Mesa is not a bluff. Commission staff geologist concurs in the determination that the slope separating the upper and lower benches is probably not a bluff, given the gradual nature of the slope separating the two benches. A delineation of the top-of-slope for the western edge of the project site would be useful in evaluating various aspects of the project.

The applicant produced a map showing the top-of-slope between the upper and lower benches to be a line drawn part way down the slope. Apparently this line was chosen because it corresponds to an interpolated line that is the top of a steep road cut on the slope. Although staff does not agree that the applicant's line conforms to the top of the actual altered slope, we do agree that the determination of top-of-slope is made difficult by the previous alteration that has resulted in the gradual rounding of the slope. Given the circumstances, the Commission staff geologist indicated that, "it is probably best to determine the slope face on the basis of its measured gradient, which is markedly steeper than the very gentle gradient of the mesas above and below".

The applicant also produced a map containing a delineation of the edge of the river bluff on the southern edge of the upper mesa overlooking the Lowlands. The applicant drew the line using the guidelines of the California Code of Regulations, Section 13577(h)(2). Commission staff geologist review of the applicant's bluff edge delineation found that while there are some small areas of disagreement, there is one major discrepancy. The discrepancy is the area of the large borrow pit where the applicant was previously proposing a 30 ft. high fill slope, approximately two acres in size (Exhibit 15). The applicant places the top of bluff at the outer edge of the cut. However, Section 13577(h)(2) states, that in cases where there is a step like feature that, "... the landward edge of the topmost riser shall be taken to be the cliff edge". Following the above-cited

Regulations, Commission staff geologist draws the bluff edge considerably inland of the applicant's line.

### **3. Proposed Grading**

As currently designed, the 105.3-acre upper bench portion of the Brightwater project includes 440,000 cubic yards (cy) of balanced grading. No grading is proposed on the lower bench residual parcel. A breakdown of the grading reveals 220,000 cy of cut and 220,000 cy of fill. The grading plan retains the existing grade differential between the upper and lower benches and also aims to restore the transitional slope to a natural appearance along the proposed native restoration and preserve area, according to the application submittal. No grading is proposed within the existing Eucalyptus grove ESHA, the Los Patos wetlands or freshwater wetland within the burrowing owl ESHA.

The applicant previously proposed grading at the current southerly edge of the bluff overlooking the Isolated Pocket Lowland, now owned by the State of California. The proposed fill would have been located within the applicant's proposed 100-ft wide Eucalyptus grove ESHA buffer. According to the applicant, the upper bench bluff edge grading was proposed in order to "restore" the bluff edge to its 1939 configuration. The bluff was altered in the early 1940's with the construction of two World War II gun embankments and in 1971 with the removal of material from along the slope overlooking the lower bench and the bluff above the Isolated Pocket Lowland. The applicant further stated that the fill was being proposed to support public access; the extension of Bolsa Chica Street, the only public road into the project site, and 30 public parking spaces, which were to be located on the proposed fill slope area. The current application no longer proposes the 30-ft. high fill slope. The applicant has produced a graphic (Proposed ESHA Buffers and Open Space Setbacks, dated January 21, 2005) that correctly shows the edge of the southern bluff, marked as "2000 CCC Top of Bluff".

The majority of the grading work is to smooth out high points and the fill of low points including areas where roads, archaeological investigations and similar ground disturbances have occurred over the years. The proposed grading plan shows that maximum cut is approximately 10 feet and the maximum fill is about 15 feet. The stockpile of crushed concrete that was temporarily stored on site from the demolition of the World War II bunkers and cistern that occurred with a coastal development permit will also be removed. The stockpile is located in the central bluff area, just northeast of the Burrowing Owl ESHA.

The proposed project includes 2-story homes with attached garages immediately adjacent to a proposed public nature trail. Coastal Act Section 30251 protects public views looking to the coast from inland areas but also protects views looking inland from locations along the coast. The homes are also adjacent to a habitat buffer. The homes adjacent to the Eucalyptus Tree and Burrowing Owl ESHA will also be visible from the Bolsa Chica Wetlands, the Bolsa Chica Ecological Reserve, Bolsa Chica State Beach and the Pacific Ocean looking inland. As such, the proposed residential development must be sited and

designed to minimize significant adverse impacts on the scenic views from the project site. The Commission therefore imposes a landscaping special condition, special condition 11 and a structural appearance special condition number 20 requiring that the visual impacts of the proposed residential development be softened with the use of appropriate landscaping and exterior treatment of the structures such that they are compatible with the natural setting by using and maintaining primarily earth tones and muted shades. Only as conditioned is the proposed development consistent with Section 30251 of the Coastal Act.

## **G. HAZARDS**

### **Section 30253 Minimization of adverse impacts**

New development shall:

- (1) 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.
- (3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.
- (4) Minimize energy consumption and vehicle miles traveled.
- (5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

Section 30253 of the Coastal Act requires that new development minimize risks to life and property in areas of high geologic, flood and fire hazard. The proposed Brightwater development includes approval of a subdivision to create 349 single-family lots and the construction of the homes, a 1.2 million gallon water reservoir, 3.2-acre Southern Tarplant environmental preservation area, 34.2-acre habitat restoration and preservation passive park with a decomposed granite pedestrian trail. The active Newport-Inglewood Fault runs along the slope between the upper and lower benches of the Bolsa Chica Mesa (Exhibit 15). In addition, there are many constructed fill and cut slopes on the proposed grading plan.

### **1. Slope Stability Analysis**

Commission staff geologist, Dr. Mark Johnsson reviewed the previously proposed grading plan and requested geotechnical information of the applicant in order to determine if the proposed project assures stability and structural integrity, will not contribute to erosion or geologic instability or destruction of the site or surrounding property or require the



construction of protective devices that would substantially alter the natural landforms along the bluffs. The applicant's geotechnical consultant performed direct shear tests on relatively undisturbed site samples in order to derive soil strength parameters for use in the slope stability analyses of the proposed slopes in the project based on the latest grading plan<sup>9</sup>.

The Commission staff geologist concurred with the applicant's previous geotechnical slope stability analyses demonstrating that all proposed slopes would be stable. However, due to the potential for surficial instability, Dr. Johnsson recommended that the applicant abide by the consultant's recommendations contained in one of the submitted reports regarding drainage and landscaping of the slopes.<sup>10</sup> The applicant has not submitted new slope stability analyses for the revised grading plan. Therefore the Commission imposes special condition 18 requiring the submittal of this information for all natural and artificial cut and fill slopes steeper than 2:1. Because the new grading plan is similar to the previous plan that was shown to be stable, there is no reason to believe that the proposed project will not be safe. However, the geotechnical consultant may make additional or different recommendations, given the new OCFA requirement to permanently irrigate the fifty feet nearest the proposed residential lots. The Commission also imposes the typical assumption of risk special condition in recognition of the inherent risks of developing coastal bluffs and slopes. Finally, the applicant's geotechnical consultant must review and certify that all recommendations have been incorporated into the final grading and construction plans that are necessary to assure that the development will not create instability or contribute significantly to erosion or the destruction of the site or surrounding properties or in any way require the construction of protective devices that would substantially alter natural landforms along the bluffs and cliffs of the project area.

No geotechnical information was provided for the proposed 11.8-acre lower bench parcel. The applicant states that the intended use of the parcel is to sale it to the Wildlife Conservation Board, for conservation purposes, with the remainder of its lower bench holdings. The lower bench sale is not included in this application and therefore is not before the Commission so the Commission has no assurance of this. If the 11.8-acre lower bench portion of Parcel 2 will be put into conservation land use, no geotechnical information is necessary. However, as explained above, the area does not need to be subdivided into a separate legal parcel to use it for conservation purposes. If the land were allowed to become a separate legal parcel, the landowner would expect a reasonable economic use of the property. Therefore, the Commission would need detailed geotechnical as well as biological information to be assured that the parcel being

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<sup>9</sup> Originally the County of Orange approved a grading plan that required 220,000 cubic yards of export and a 40-ft high fill slope on the southeast bluff edge instead of the current 30-foot high slope. The applicant planned to export the material to the adjacent Parkside Estates site in the City of Huntington Beach. When staff requested evidence of approval for the export, the applicant modified the grading plan to balance cut and fill operations on-site.

<sup>10</sup> AMEC Earth and Environmental, Inc. 1997, "Geotechnical evaluation report, Phase I rough grading plans, Vesting Tentative Tract 15460, Bolsa Chica Mesa, South of Warner/Los Patos Avenues, Orange County, California., 60 p. geotechnical report submitted to the Koll Real Estate Group dated 1 December 1997 and signed by D. Dahncke (GE 2279) and S.T. Kerwin (CEG 1267).

created can be developed in a manner consistent with all of the applicable Chapter 3 policies of the Coastal Act. As described below, the Newport-Inglewood Fault Zone runs through the proposed residual parcel. Therefore, the creation of the 11.8-acre lower bench residual parcel can not be found consistent with Section 30253 of the Coastal Act.

## **2. Newport-Inglewood Fault Zone**

A portion of the proposed subdivision is traversed by the Newport-Inglewood fault zone, generally recognized as the source of the 6.25 magnitude Long Beach earthquake in 1933 that killed 120 people and resulted in the passage of the Field Act. The fault traverses the gentle slope between the upper and lower benches and the southeastern and northwestern portions of the proposed lower bench residual parcel (Exhibit 15). The fault has also been designated an Earthquake Fault Zone by the State Geologist under the Alquist-Priolo Act. However, the area has not been identified as one susceptible to earthquake-induced landslides or liquefaction hazard on the California Geological Survey Seismic Hazard Map under the Seismic Hazard Mapping Act, according to Dr. Johnsson. In sum, the area immediately surrounding the fault qualifies as an area of high geologic hazard for purposes of Coastal Act section 30253(1).

The applicant has prepared and submitted for Commission staff review the necessary reports, including trenching and mapping, pursuant to the Alquist-Priolo Act. The studies verify that the North Branch Fault (of the Newport-Inglewood Fault Zone) is considered active. The surface trace of the fault was identified through detailed trenching and mapping, and a 50-foot setback from all fault traces was identified in accordance with the Alquist-Priolo Act, that prohibits structures for human habitation to be built across an active fault. Commission staff geologist's review of the fault data shows that the fault seems to be well established at its present location. Dr. Johnsson concurs that the 50-foot setback is adequate for the proposed upper bench residential development given that no residential lots of the subdivision abut the mapped fault setback line.

As shown in Exhibit 15, the active earthquake fault traverses the southern 500 and approximately 1,000 ft. of the northern portion of the proposed irregularly shaped 11.8-acre lower bench residual parcel. Coastal Act section 30253(1) requires that new development minimize risks to life and property in areas of high geologic hazard. The creation of the residual parcel is new development that would make further structural development possible on the new parcel. As stated, no geotechnical information has been provided for the proposed new parcel. For this reason, among others, staff recommends that the Commission deny the creation of this lower bench parcel given its seismic hazard constraints and lack of geotechnical information demonstrating that the parcel can be developed consistent with the geologic hazard and all other applicable Chapter 3 provisions of the Coastal Act.

### **3. Hydrology**

The previous Brightwater project proposed a vegetated water quality treatment system (VTS) including a series of five proposed treatment wetlands, an existing freshwater wetland and a proposed 1.3-acre detention basin to treat low flow and stormwater runoff prior to discharging it to an existing 24-inch stormdrain emptying into the Isolated Pocket Wetlands below the project site. Due to the system's impacts on Southern Tarplant and the burrowing owl ESHA, it has been eliminated from the current proposal. The current water quality management plan replaces the previous VTS and existing 24-inch corrugated metal pipe with a new 66-inch reinforced concrete pipe with an internal energy dissipater in the outlet and 20 feet of rip-rap below the outlet. Except for about 8 acres, the surface runoff from the developed site will be collected and directed to the Bolsa Chica Wetlands through this new pipe. Section 30253 of the Coastal Act also requires that new development minimize risks to life and property in areas of high flood hazard. The stormwater runoff from the project site under the developed condition could have potential flooding impacts on the adjacent Isolated Pocket Wetland area to which it drains.

A hydrologic study, Preliminary Hydrology Study for the Brightwater Development, dated September 2001 and revised December 2004, by The Keith Companies calculated the volumes and discharge velocities of the 2, 5, 10 and 100 year storm events expected for the proposed project. The study shows that the discharge velocity at the end of the new 66-inch pipe, corresponding to a 10-year storm event, is 4.8 feet per second, which should be non-erosive, if discharged onto a rip-rap energy disperser as proposed. The volume of water discharged to the Bolsa Chica Wetlands during a 100-year storm event increases from 34 acre feet in the existing condition to 39.4 acre feet in the developed condition. The additional 5.4 acre feet will be discharged into an area of about 40 acres, which would result in less than two inches of additional water during a 100-year rainfall event. Accordingly, both the discharge velocity and the increase in the volume of water discharged to the Wetlands as a result of the development should have no adverse impacts to the Wetlands. The State Lands Commission as well as other members of the eight agency Steering Committee overseeing the Bolsa Chica Wetlands Restoration effort has reviewed the new water quality treatment proposal. They concur with the assessment that the new proposal will not cause any significant adverse impacts to the wetlands.

### **H. MARINE RESOURCES – WATER QUALITY**

New development can have significant adverse impacts on coastal water quality and biological productivity, if adequate erosion and runoff control measures are not properly designed and implemented during grading and construction. New development can also adversely affect water quality after construction if permanent pollution prevention, reduction and treatment measures are not provided and maintained for the life of the development. Sections 30230 and 30231 of the Coastal Act require the protection of

marine resources by protecting the quality of coastal waters. Specifically, these policies require:

**Section 30230 Marine resources; maintenance**

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 Biological productivity; water quality**

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.

The 105.3 acre Brightwater project site is to consist of 349 single family residences, a 1.2 million gallon underground drinking water reservoir, public streets and sidewalks, two small public parks and 37 acres of open spaces area. The impervious surfaces and activities associated with this scale of residential development represents a potentially significant impact to coastal resources, including portions of the Bolsa Chica wetlands, Huntington Harbor and ocean waters. The County of Orange required the preparation of a hydrology/water quality study in the review of the project at the local level. The applicant also prepared a Master Drainage Plan, Storm Water Pollution Prevention Plan (SWPPP), and Water Quality Management Plan (WQMP). These documents and revisions were submitted to Commission staff and reviewed by the Commission's Water Quality Unit.

The Brightwater development site is currently undeveloped and no off-site drainage flows onto the site. The mesa is vegetated with primarily non-native grassland, ruderal vegetation and several vegetated ESHA. There are also approximately 17 acres of dirt roads or other non-vegetated areas on the site. The hydrology study evaluates the existing hydrologic condition and divides the site into several drainage areas (Exhibit 7, Existing Hydrology). The majority of the project area drains to the south under existing conditions to depressional areas that act as detention basins. During larger rain events, runoff flows to the Isolated Pocket Lowland via an existing 24 inch corrugated metal pipe (CMP) southeast of the project site. The Isolated Pocket Lowland area is located between the EGGW Flood Control Channel (EGGW FCC) and the project site, and currently has no direct connection to the ocean. The Isolated Pocket Lowland area now belongs to the State and will be restored as part of the Bolsa Chica Wetlands Restoration Project. In the current wetland restoration plan, the Isolated Pocket Wetland will be connected to the EGGW Flood Control Channel through a culvert allowing salt water to enter the Isolated Pocket Wetland on a regular basis, but with a reduced (muted) tidal range.

The Brightwater development previously proposed to treat runoff from the 85th percentile storm events and dry season flows on-site by diverting runoff to a treatment wetland or Vegetated Treatment System (VTS) consisting of series of five freshwater ponds located within the proposed upland habitat park on the slope separating the upper and lower benches. The proposed treatment wetlands and associated detention basin have been eliminated from the Water Quality Management Plan under the current project because they were to be located within the burrowing owl environmentally sensitive habitat area (ESHA) and would have impacted significant populations of the Southern Tarplant. Under the current proposal an underground media filter system will treat all of the runoff from all storms up to and including the 85<sup>th</sup> percentile storm event and the first flush from larger storms. Where the previous WQMP proposed sending dry weather flows to the VTS for infiltration or evaporation, the current plan proposes to minimize these flows using efficient irrigation and sends any remaining dry weather flows to the sanitary sewer. Most of the impervious areas that were previously proposed in the nature park (a 12 ft. wide, approximately 3,500 ft. long paved pedestrian/bicycle trail, the extension of Bolsa Chica Street at 32 ft. in width, and 30 parking spaces) have now been eliminated. Now the only non-vegetated area in the 34-acre passive habitat park will be a 6-foot wide decomposed granite trail. The previously proposed VTS may have provided some additional benefits (e.g., wetland habitat, scenic values and groundwater infiltration), beyond the currently proposed underground media filter system, but could not be implemented on the surface area available without impacting existing habitat.

The applicant now proposes to consolidate runoff from 92% of the developed land to a single drainage area (Drainage Area B, see Exhibit 8, Proposed Hydrology) and provide an underground media filter system underneath one of the three pedestrian walkways leading to the habitat park. As proposed, the treated runoff will be discharged to the sanitary sewer during dry weather and to the Isolated Pocket Wetland during wet weather. The modifications will reduce the runoff to Huntington Harbor by 75% and all the remaining runoff that flows to the harbor from developed streets will be treated, thus reducing potential impacts to a water body that is listed by the state as impaired for copper, nickel, Dieldrin, PCBs and pathogens. Catch basin media filters will treat the remaining runoff to Huntington Harbor (Drainage Area A). Moreover, all developed areas of the project will have standard structural and non-structural best management practices (BMPs) as indicated in the Brightwater Water Quality Management Plan dated January 21, 2005.

The Water Quality staff of the Coastal Commission reviewed and evaluated the WQMP to determine whether it met its stated goals and whether it was in conformity with the marine resources protection policies of the Coastal Act (Exhibit 9). The Water Quality Unit concluded that the WQMP could significantly reduce the discharge of polluted runoff from the development, if certain necessary and feasible modifications were made to the overall treatment program being proposed. However, as proposed in the January 21, 2005 version of the WQMP, there were several inconsistencies with Sections 30230 and 30231 of the Coastal Act.



## **1. Erosion Control Plan**

The applicant has submitted a draft Storm Water Pollution Prevention Plan (SWPPP) dated January 21, 2003. This document provides conceptual plans for erosion, sedimentation and polluted runoff control during the construction phase of this project as it was described at that time. The draft SWPPP was developed to assist the applicant in responding to the California State Water Resources Control Board (SWRCB) Order No. 99-08 DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (Construction Storm Water Permit). While submittal of SWPPPs to the SWRCB is required by the Construction Storm Water Permit, and while construction projects are required to have a SWPPP on site, the SWPPP may or may not be reviewed by the Regional Water Quality Control Board staff. In addition, the Construction Storm Water Permit only requires that the SWPPP be complete prior to the start of construction.

In order to adequately review project efforts to control erosion, sedimentation and polluted runoff during the construction phase, the Coastal Commission requires submittal of a plan (Erosion Control Plan) prior to the issuance of the Coastal Development Permit that describes all construction phase BMPs required to conform to the mandates of California Coastal Act Sections 30230 and 30231. In order to minimize duplication of effort, this plan should incorporate the most recent version of the SWPPP, as well as any additional BMPs required to address site-specific coastal resources. This Erosion Control Plan must also be approved by the local jurisdiction as being in compliance with the local stormwater requirements. In order to ensure that construction phase BMPs conform to the mandates of California Coastal Act Sections 30230 and 30231, Condition 8 requires that the developer submit an Erosion Control Plan, that conforms to the requirements of this permit, incorporates the most recent version of the SWPPP and has been approved by the County of Orange prior to issuance of the Coastal Development Permit.

## **2. Water Quality Management Plan**

Structural BMPs proposed by the project developer in the January 21, 2005 version of the WQMP include: an underground media filter system sized to treat the 85<sup>th</sup> percentile storm event for 92% of the developed area of the project; dry weather diversion of treated water to the sanitary sewer system; catch basin media filters on the remaining portion of the site draining to Huntington Harbor; efficient irrigation for common areas; runoff minimizing landscape design for common area; energy dissipating riprap at new stormdrain outlets and inlet trash racks. The non-structural BMPs include: education for property owners, tenants and occupants; activity restrictions (e.g., no auto repairs or oil changing on site, no discharge of landscaping debris to storm drains, no clean up from painting in paved areas, no washwater from construction activities into stormdrains); common area landscaping maintenance; BMP maintenance requirements; common area litter control; catch basin inspections; and requirements for regular street sweeping.



The WQMP proposes to treat project runoff draining to Huntington Harbor (Drainage Area A) using catch basin media filters. Catch basin media filters are proposed because this area is constrained by steep slopes, limited area and does not drain towards the large media filters in Area B. The WQMP indicates that the catch basin media filters will be designed to treat the runoff for suspended solids, oil and grease, and heavy metals, but does not specify the capacity of the BMP. The Coastal Commission finds that flow-through BMPs should be sized to treat the 85<sup>th</sup> percentile 1-hour storm event with a safety margin of 2 or greater in order to maintain marine resources and to avoid diminishing biological productivity or water quality to a level that would reduce populations of marine organisms below optimum levels or endanger human health. In order to ensure that catch basin media filter BMPs conform to the mandates of California Coastal Act Sections 30230 and 30231, Condition 16.A.1.c requires that the developer meet the sizing criteria above and Condition 16.A.2 requires that the developer shall use a filter media that meets performance expectations in removing the pollutants named above.

Various individuals, organizations and agencies expressed concerns over the Brightwater WQMP as proposed in October 2004. Those concerns are addressed either here or in answer to the letter from the Orange County Coastkeeper below. The concerns include:

- potential adverse impacts to the Isolated Pocket Lowland wetlands due to the volume of the project freshwater flows;
- that the WQMP does not provide information on total loading or potential adverse cumulative impact caused by use of pesticides, fertilizers and other chemicals by individual homeowners and the impacts of animal waste; and
- that low flows should be diverted to the OC Sanitation District treatment plant.

Concern has been expressed about potential impacts of stormwater runoff may have in reducing halophytic plants and encouraging brackish or fresh water plants in the adjacent State-owned Isolated Pocket Lowlands, especially given the extensive 1,100-acre Bolsa Chica Wetlands Restoration Project (Restoration Project). When the applicant sold the Isolated Pocket Lowlands area to the State the applicant retained a drainage easement to accommodate the flows from the proposed development. However, the discharge must be done in a way that it does not adversely impact water quality or the biological productivity of the wetlands. During review of the Vegetated Treatment System (incorporated in the previous WQMP) staff discussed these concerns with personnel from the Bolsa Chica Steering Committee who commented that they were aware of the Brightwater project and did not object to the proposed discharge to the Isolated Pocket Wetland area. Further, the Steering Committee felt that the low freshwater volumes into what will be muted tidal habitats would create very localized, but beneficial, biological diversity and are not likely to contribute contamination. The Steering Committee is aware of the modifications to the January 21, 2005 version of the WQMP and has no objections to the current plan. The new plan was reviewed and approved by the landowner, the California State Lands Commission.

Concerns about potential adverse cumulative impact caused by use of pesticides, fertilizers and other chemicals by individual homeowners and the potential effects of animal wastes are valid and these pollutants are a potential problem throughout our coastal communities. In response to these concerns, the WQMP includes both non-structural and structural BMPs such as education for property owners, tenants and occupants; common area landscaping maintenance; common area efficient irrigation to minimize runoff; common area litter control; catch basin inspections; media filtration; low flow diversion and requirements for regular street sweeping to deal with these issues. The homeowner education BMP is intended to make individuals aware that misuse of water and household chemicals can have harmful impacts on the nearby wetlands, harbor and ocean. The underground media filtration system in combination with the other BMPs are an effective system for minimizing the impacts of irrigation runoff, pesticides, fertilizer and pet wastes, especially in combination with source control of these pollutants through best management practices in the common areas and private areas of the development. In addition, if the proposed low flow diversion to the sanitary sewer is implemented, many of these pollutants will be further reduced through the wastewater treatment process. In sum, in reliance on the professional judgment of the Commission's Water Quality Unit, the Commission concludes that the total additional loading of pesticides, fertilizers and other chemicals and the impacts of animal waste will not have a significant adverse impact on marine resources, coastal water quality, or biological productivity.

The current project does propose to divert dry weather flows to the sanitary sewer. While such diversion has occurred for several major residential developments in Southern California over the past few years, it has not been generally required by the water quality agencies or by the Commission for several reasons. In some cases, diversion can be a quick fix to beach water quality problems, but it is an end-of-pipe solution that tends to de-emphasize the responsibility of upstream landowners to control sources of pollution and maintain site hydrology near natural conditions. In addition, diversion of first flush runoff to a sewage treatment plant would require the governing board for the plant to find that there is adequate capacity to treat the additional water. As sewage treatment plants approach their design capacity, governing boards can be expected to refuse to treat urban runoff if that would reduce their capacity to treat residential sewage. Moreover, although sanitary sewer diversion can be effective, there is no evidence at this time that it should substitute for a comprehensive system of best management practices implemented throughout a project in order to meet the requirements of Coastal Act Sections 30230 and 30231.

- A letter, dated March 8, 2005, from the Orange County Coastkeeper, raised concerns about the water quality plan provisions of the current project (Exhibit 29) including: that the underground media filtration system should include additional storage to detain and treat greater volumes of water than the runoff of the 85<sup>th</sup> percentile storm event;
- that the developer should use the latest technologies available for the catch basin media filters;

- that the developer should agree to install smart sprinkler controllers on single family houses;
- that the WQMP should include a monitoring plan to evaluate the water quality system effectiveness and determine if it complies with numeric effluent discharge standards;
- that the monitoring plan should measure the results in the pipe and not in the receiving waters; and
- that the responsibility for maintenance of BMPs and education of homeowners be included in the property Conditions, Covenants and Restrictions (CC&Rs) or other governance structure to ensure that the water quality protections are adequately addressed many years into the future.

The Orange County Coastkeeper (Coastkeeper) is concerned that the underground media filter system BMP will bypass storms larger than the 85<sup>th</sup> percentile design storm and recommends that the project include additional storage capacity for stormwater. Although treating more stormwater or detaining stormwater for longer periods may have some water quality benefits, the Coastal Commission, Regional Water Board and other authorities have determined that the 85<sup>th</sup> percentile storm event is the point where the cost of additional treatment outweighs the benefits. Moreover, there is no evidence that, by limiting the size of the underground media filter system to the 85<sup>th</sup> percentile design storm, the project will result in an increase in pollution that will degrade marine resources, which is the standard for Coastal Act purposes, or otherwise violate the requirements of Sections 30230 and 30231. In fact, the evidence presented indicates just the opposite – that the proposed system will satisfy the requirements of those sections by maintaining marine resources and will not diminish biological productivity or water quality to a level that would reduce populations of marine organisms below optimum levels or endanger human health.

The Coastkeeper is also concerned that the catch basin media filter treatment technology to be used on the drainage to Huntington Harbor is not adequate. They indicated in their letter and a phone conversation that a previous version of the WQMP specified an outdated technology. Condition 16.A.2 will also specify that the final design of the catch basin media filter BMP selected by the developer will be submitted to the Executive Officer for review, prior to permit issuance.

The Coastkeeper recommended that the developer install "smart sprinkler controllers" on the individual lots of the development. These "smart sprinkler controllers" adjust the amount of irrigation based on sensors that measure current weather and soil conditions. The applicant is proposing "efficient irrigation" in common areas of the development (but not on individual lots) to avoid excess runoff and diversion of dry weather nuisance flows to the sanitary sewer. Efficient irrigation is described in the WQMP as including, at a minimum: water sensors; properly adjusted irrigation heads; irrigation timing and cycle

lengths adjusted to water demands; and grouping plants with similar water requirements. The WQMP indicates that the irrigation system will be designed and operated based on the requirements of the California Model Water Efficient Landscape Ordinance (June 15, 1992).

Addition of a requirement for smart sensors and the other aspects of efficient irrigation on individual lots would minimize dry weather flow from both common and private portions of the development and minimize freshwater discharge to the Isolated Pocket Wetland during the dry season. This would create the treatment system discharge conditions that had been planned during the design of the previously proposed Vegetated Treatment System (i.e., no freshwater flow to the Isolated Pocket Wetland during the dry season). In order to eliminate dry weather flow the current WQMP proposes to divert any dry weather runoff to the sanitary sewer.

Even though the applicant does plan to divert the dry weather runoff to the sanitary sewer, efficient irrigation on private lots would still serve a valuable purpose since it would reduce the volume of diverted flows and reduce the time that irrigation systems would operate during or after rain events. And the efficient irrigation would add redundancy to the water quality protection system in case the sanitary sewer district is not able to accept the diverted runoff. While efficient irrigation systems or smart sprinkler controllers are more expensive than standard systems, the costs can be reduced by installing the systems during initial landscaping and by sharing the costs of sensor installations.

While the inclusion of smart sprinkler controllers on private lots would be an improvement to the overall water quality program, it does not appear to be required for the project to conform to the mandates of California Coastal Act Sections 30230 and 30231, as long as the dry weather runoff is diverted to the sanitary sewer. In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, Condition 16.A.3 requires that the developer divert dry weather runoff to the sanitary sewer or minimize dry weather runoff to the extent practicable by extending the efficient irrigation system and smart sprinkler controllers to individual lots.

Concerns about the need for a monitoring program or a quantitative estimate of the total loading of pollutants to the waters downstream are related in that they presume that the quality of runoff is regulated by quantitative regulatory standards, such as a waste load allocation. In fact, at this time, the control of polluted runoff nationwide and in California is primarily regulated by requiring dischargers to use nonstructural and structural Best Management Practices (BMPs) to reduce the discharge of pollutants to the maximum extent practicable. Few municipal stormwater permits contain numeric effluent standards or require site-specific monitoring. Thus, the Regional Water Boards have not developed generally applicable, quantitative standards for nonpoint source pollution that could be applied or enforced by other agencies, including the Commission.

The strategy of requiring structural and nonstructural BMPs is a significant step towards dealing with polluted runoff; a water quality problem that is widespread, caused by the

actions of many people and where responsibility cannot be readily assigned to specific parties. A large variety of BMPs have been approved by federal and state agencies for their ability to reduce the pollutants that are found in polluted runoff. The suite of BMPs considered appropriate for California are found in the California Stormwater Quality Association (CASQA) BMP handbook. While the Coastal Commission has, on occasion, required monitoring of discharge from specific developments, this has been in response to the proposed use of management practices that are not designed to the specifications in the CASQA BMP handbook due to site-specific conditions or innovative methods in need of additional information to document effectiveness.

In addition, the WQMP does indicate that there will be a performance-monitoring program allowing Coastal Commission staff, as well as Regional Water Board staff, to evaluate the effectiveness of the filter media and recommend any needed improvements. The monitoring program will test the water quality entering and leaving the new media filter system for three storms per year over a three-year period. If the Regional Water Board finds that the discharges from this development may be causing receiving waters to fail state standards, that agency can require additional monitoring at any time and, based on the information collected, take further actions to address the problem.

A specific concern of the Coastkeeper is that the water quality samples taken at the outlet of the underground media filter system be taken "in the pipe" and before the discharge mixes with receiving waters. This will allow for a better evaluation of the effectiveness of the BMP, since the sample will not be diluted or mixed with untreated water. While this sample location was not specified in the WQMP, the water quality consultant for the developer, provided additional information in a February 11, 2005 email on monitoring locations, analytes, analytical methods, filter media, and BMP maintenance responsibilities, that has not yet been included in the WQMP. The consultant indicates that monitoring downstream of the underground media filter system will be "at the proposed storm drain outlet", which seems to indicate that it is prior to mixing in receiving waters. In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, Condition 16.B requires that prior to issuance of the permit the developer shall provide a detailed water quality monitoring plan designed to evaluate the effectiveness of the project structural BMPs (both the underground and catch basin media filters) and it shall include a monitoring point at the outlet of the BMPs and prior to mixing with other runoff or receiving waters.

The Coastkeeper recommends that the responsibility for the long-term management, operation and maintenance of the WQMP (including structural BMPs and non-structural BMPs, such as education of homeowners) be included in the property Conditions, Covenants and Restrictions (CC&Rs) or other governance structure. Their concern is that BMP maintenance and water quality education are "beyond the working knowledge and expertise of a typical Homeowners Association (HOA) Board of Directors". In addition, without a formal commitment, other competing needs (e.g. maintenance of common areas) may cause a reduction in coastal water protection over time.

The water quality consultant for the project has indicated that the underground media filter system will be constructed by Stormwater Management Inc. and that "The HOA will have financial responsibility for maintenance of the media filters, but it is unlikely that they would be doing the physical maintenance. They indicate that the HOA would probably be contracting the work out, and due to the proprietary nature of the media filter, Storm Water Management, Inc. would be the only one capable of performing the work."

While it is reassuring that the maintenance of the primary structural BMPs will be conducted by knowledgeable professionals, evidence that the WQMP will be fully implemented over the life of the project is needed. CCC water quality staff agrees that the additional safeguard of a long-term governance structure is necessary for long-term water quality protection and that a description of this structure needs to be included in the WQMP. Evidence of the governance structure needs to be presented to the Executive Officer for his approval prior to permit issuance. In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, Condition 16 requires that prior to issuance of the permit the developer shall provide evidence of a governance structure that ensures the full implementation of the WQMP for the life of the project, including proper management, operation, and maintenance of the structural BMPs and ongoing education of homeowners.

In conclusion, Commission Water Quality Unit staff has reviewed the WQMP dated January 21, 2005 and supporting documents as listed above. Based on those documents, the Coastal Commission concludes that if the permit is conditioned to require additional assurances that the catch basin media filter BMPs to be used are properly sized and designed for the expected pollutants of concern; that the monitoring plan is adequately implemented to evaluate BMP effectiveness; that the dry weather flow is diverted or the dry weather runoff is minimized by adding efficient irrigation on individual lots; that BMP maintenance is performed by trained professionals; and that implementation of the WQMP including BMP maintenance is mandated in the project CC&Rs for the life of the project, then the water quality aspects of this project would appear to be consistent with Sections 30230 and 30231 of the Coastal Act. Only as conditioned can the proposed Brightwater development protect water quality and marine resources pursuant to Sections 30230 and 30231 of the Coastal Act.

## **I. CULTURAL RESOURCES**

Section 30244 of the Coastal Act protects cultural resources in the coastal zone and states:

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



Coastal Act Section 30244 states that reasonable mitigation measures shall be required where development would adversely impact identified archaeological resources. The applicant contends that the Brightwater development project will not adversely impact either of the two on-site identified archaeological sites due to the fact that a series of measures to mitigate the impacts of future development have been implemented completely in the case of ORA-85, and at the time of the October 2004 hearing, 97% complete in the case of ORA-83<sup>11</sup> as approved by the County of Orange, and the Coastal Commission. The coastal development permits and other actions that have been taken by the Coastal Commission for ORA-83 and ORA-85 are reviewed below. Despite the fact that approvals were obtained from the County and the Commission for complete recovery of cultural resources, as proposed by the applicant, and archaeological testing and recovery work has been on-going since the mid-1980's, under these permits, there still remains considerable opposition to removal of the cultural resources of ORA-83.

During the preparation of the staff report for the October 2004 hearing, Commission staff received several letters from archaeologists, including university professors, and several letters from environmental groups, Native Americans, and individuals calling for the preservation of ORA-83, even though they are aware that a full recovery program for the site has long since been approved. Staff received a copy of a 1999 letter from the head of the archaeology division of the Smithsonian National Museum of Natural History supporting the preservation of what remains at ORA-83 and a 2001 letter from Congresswoman Loretta Sanchez supporting the listing of ORA-83 in the Federal Register as a National Historic Site. Some request that the site be capped and left as open space after the data has been recovered, instead of allowing residential development at the site of an identified prehistoric and historic cultural resource. While others suggest that further destruction of ORA-83 be avoided, relocation of proposed development away from ORA-83. Yet others assert that recent mechanical excavations at ORA-83 have revealed the presence of numerous semi-subterranean house pit features at the base of the site, beneath the midden deposit and contend that this feature represents a new, significant area of needed research. Although the Commission approved the full recovery of ORA-83 as proposed by the applicant in the previous permits listed below, the Commission finds no evidence in the record of those permits at the time of their approvals that the "semi-subterranean house pits" were known or expected to exist, beneath the shell midden.

The July 10, 2003 brief update statement by the applicant's archaeological consultant, signed by the three current peer reviewers stated that, "The Peer Review Committee members, over the last several years, have overseen the nature of the ongoing phases of the Ora-83 site investigation and had made recommendations on strategies appropriate to address the unusual breadth of the emergent field discoveries." The update further states

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<sup>11</sup> "Archaeological Site CA-ORA-83: The Cogged Stone Site, Synopsis: A History of Archaeological Investigations, Nancy Anastasia Desautels, Ph.D, Scientific Resources Surveys, Inc., Project No. 926, April 28, 2003.. "Archaeological Site CA-ORA-85: The Eberhart Site, Synopsis: A History of Archaeological Investigations, Nancy Anastasia Desautels, Ph.D, Scientific Resources Surveys, Inc., Project No. 926, September 2003.

that the "special new topics" evolving at Ora-83 include, "describing and evaluating the patterns of the multitude of semi-subterranean 'house pit' features revealed." Professor Pat Martz, a past member of the California State Historical Resources Commission states in revisions to her 2001 nomination of ORA-83 for listing on the National Register of Historic Places to the State Historic Preservation Officer, that house pit structural features are rarely found in Southern California and are extremely rare since the site was occupied during the Early Holocene/Millingstone Horizon of California prehistory. Semi-subterranean house pits are large circular depressions that were excavated below the surface a few feet and framed with poles and then thatched. Under normal climatic conditions (not consistently dry, or consistently wet) organic materials would not preserve. It is likely that the house pit structures would have a hard packed floor, post-holes and a hearth. Professor Martz contends that these house pit features are probably still present at the base of the site and that these semi-subterranean house pits have the potential to address important questions regarding village structure, social organization, settlement patterns, gender activities, and demographics, as well as relationship of the structures to astronomical features.

In November 2004 Commission staff accompanied the applicant and their consulting team on the project site to revisit a number of issues that had been raised at the October 2004 Commission meeting. At that time staff verified that the house pits had all been excavated and backfilled.

Archaeologists have recognized the astronomical significance of numerous archaeological sites in Southern California for more than 25 years and celestial observations have been conducted at several archaeological sites. Recently, among both scientists and Native Americans, there has been a growing interest in studying ORA-83 to determine if the site was a key location in the complex spiritual/philosophical system of knowledge regarding the Cosmos held by prehistoric Native Americans. Beginning in 1994, a Cogged Stone Site study team, made up of scientists and Native Americans, has tested its astronomical research design for ORA-83 several times. The According to Dr. Martz, the team proposed that the view from the elevated mesa encompasses geographic features that ethnographic data suggest may have functioned as cyclical astronomical alignments such as Catalina Island to the southwest and Point Fermin Heights to the west. The team discovered that the sun sets over West End Point of Santa Catalina Island for three days in late December, signaling the winter solstice, and that it rises directly over the Point Fermin Heights to indicate the spring and fall equinoxes. The Commission has found no evidence in the record of the previous permits that the approved mitigation measures were for impacts to archaeoastronomical resources.

A Native American from the Band of Luiseno Mission Indians, representing the Maritime Shoshone, Inc, a not-for-profit Native corporation, has sought to preserve a 7.4acre portion of ORA-83 for its archaeoastronomical value. In Ms. Jeffredo-Warden's May 2004 nomination submittal to the State Historic Preservation Officer for listing of the site on the National Register of Historic Places she states that the archaeological and archaeoastronomical data obtained at the CA-ORA-83 site, dated to from 8,660 to 1,098

RYBP, evidently constitutes, in addition to the earliest reliably dated observatory site in North America, one of the earliest fixed astronomical observation points in the world. Ms. Jeffredo-Warden is also requesting that the Coastal Commission preserve a 7.4-acre portion of ORA-83 in order to conduct additional astronomical tests and to do further research on the site as well as the preservation of the existing site contours to preserve the existing solstitial alignments and Ms. Jeffredo-Warden submitted a copy of the nomination to the Commission. A letter was received from Senator Diane Feinstein, dated August 4, 2004, urging the Commission to fully consider the concerns raised by Ms. Jeffredo-Warden regarding appropriate mitigation for cultural resources of ORA-83. Several letters of support of the archaeoastronomical resources preservation were received from professors of archaeology, the director of the Griffith Observatory and the International Indian Treaty Council (these letters are attached as exhibits as well as the public portion of Ms. Jeffredo-Warden's nomination of the site to the State Historic Resources Commission).

On November 5, 2004 the State Historic Resources Commission conditionally moved to recommend that the State Historic Preservation Officer submit the nomination to the Keeper of the National Register for a determination of CA-Ora-83's eligibility for inclusion in that register (Exhibit 13). The November 5<sup>th</sup> action went on to say that, "The Commission agrees that the property is eligible at the national rather than the state level of significance" and then set out five conditions that need to be met, including the completion of the revisions and the submittal of the registration form to the Keeper no later than May 5, 2005. The third condition of the motion dealt specifically with the significance of the site as a prehistoric archaeoastronomical observation point, stating that the case should be made more of a consideration rather than a major aspect of the property's significance (Exhibit 13).

The applicant has submitted several letters in rebuttal to the statements of the archaeoastronomical significance of the site. The applicant contends that several studies, over a period of years, were done and no archaeoastronomical significance was found to exist on the site. The applicant's archaeologist has submitted a letter to this effect, signed by the three peer reviewers, agreeing that the project site was found to possess no archaeoastronomical significance. Ms. Jeffredo-Warden has countered that neither the applicant's archaeologist nor any of the three peer reviewers have expertise in this field.

Pursuant to Section 30244 of the Coastal Act the Commission must decide whether the proposed project would adversely impact identified archaeological resources. If such a finding is made, reasonable mitigation measures shall be required. As stated above, and as detailed below, the Commission has granted the applicant and previous land owners several coastal development permits to carry out extensive archaeological research, testing and full recovery of ORA-83 and ORA-85. Though some features were not specifically discussed in the research design application submittals the Commission peer review committee required the Commission often requested that the applicant to carry out additional investigations to ensure that no resources were overlooked in order to get a full understanding, as much as possible of the past. The applicant is proposing to leave in

open space that portion of ORA-83 that lies within their proposed Eucalyptus Tree and Burrowing Owl ESHA buffers. The area would become a part of the proposed coastal sage scrub and native grassland habitat creation and monitoring plan and include a public trail and fuel modification in the upper portions. A significant portion of ORA-83 is within the staff recommended 328 foot (100-meter) wide Eucalyptus grove ESHA buffer. Therefore if the Commission requires that this area be preserved as open space to protect the raptors that use the Bolsa Chica Mesa as detailed in Section D of this staff report, the majority of ORA-83 will be preserved. Further, Exhibits 18, 19, and 22 and 23 are letters from Native Americans, including the Acjachemem Nation, Ancestor Walk Coordinator, and from the president of the California Cultural Resources Preservation Alliance (CCRPA), an alliance of American Indian and scientific communities working for the preservation of archaeological sites and other cultural resources. They request the Commission impose a 100 meter setback or "the greatest open space possible". The Commission finds that the additional open space area being required for habitat protection purposes under Section 30240 of the Coastal Act can also serve to further protect the area previously used as a prehistoric and historic archaeological site and is therefore consistent with Section 30244 of the Coastal Act.

The Native American Heritage Commission sent a letter to the Commission during its October 2004 deliberations requesting that that the Brightwater project includes interpretive signage along the Mesa detailing the area's prehistoric and historic history. Finally, the above letters also request signage concerning the Native American past of the site as well as dissemination of the wealth of knowledge that has been gained over the two decades of study at the site and curation of the appropriate portions of the artifacts recovered from the site. Only as conditioned to place appropriate interpretive signage along the public trail informing the public of the cultural resources of the area, to disseminate the series of required final reports to institutions and interested groups, to curate the artifacts recovered from the site in a facility in Orange County meeting established standards, and to have an archaeologist and Native American monitor present when grading operations commence to ensure that if any additional cultural resources are found there are procedures in place to go about determining the significance of the resources and to ensure that work can proceed without adversely impacting archaeological or paleontological resources.

### **Description and Status of ORA-83**

ORA-83 is 11.8 acres in size and is located at the southeastern bluff edge of the Brightwater. ORA-83 is commonly known as the Cogged Stone Site, and consists of a shell midden. Cogged Stones are unusual artifacts that are manufactured and used in ceremonial practices. More Cogged Stones, over 400 or roughly half of the total found, have been found on ORA-83 than any other site and are thought to have been distributed throughout coastal and near-coastal California. Similar stones have also been found on the coast of northern Chile. It is also believed that the Cogged Stone site served as a ceremonial center and a center for the manufacture of the Cogged Stones. ORA-83 has been twice found by the State Historical Resources Commission to be eligible for listing in

the National Register of Historic Places. However, the listing has been declined by the property owner.

According to the applicant's archaeological consultant, the site was 97% recovered at the time of the application submittal for the October 2004 hearing. Based on staff observations in November 2004 the site appears to be virtually 100% recovered

### **Description and Status of ORA-85**

ORA-85, the Eberhart Site is described by Dr. Desautels of Scientific Resource Surveys, Inc. (SRS), as a shell midden located on the western edge of the Bolsa Chica Mesa. Knowledge of the Eberhart site has existed since the 1920's. Based on the numerous investigations of the site carried out by other researchers beginning in the mid-1960's and by SRS beginning in the 1980's, the Eberhart site was determined to be a residential base or village and was not a limited special-purpose shellfish gather and processing station. No evidence of ceremonial or other structures were found. Other than four quartz crystals, which may be evidence of ceremonial utensil manufacture, no obvious objects associated with religious ceremonies were recovered. Finally, no evidence of human remains in the form of burials or cremations was found. However, over 2,000 artifacts, more than 1,500 fire affected rock, and thousands of faunal remains have been recorded at the site. Although analysis of the recovered material had not been completed as of September 2003, the applicant states that the approved testing and data recovery program approved by the Coastal Commission concerning ORA-85 in 1989 was completed in 1991. .

### **Past Coastal Commission Action Concerning Archaeological Resources on or Adjacent to the Brightwater Project Site**

The Coastal Commission reviewed and approved several coastal development permits and permit amendments for archaeological activity on and adjacent to the project site beginning in the early 1980's. The Commission also acted on a revocation request of one of the coastal development permits for activities within ORA-83 in 1999. Additionally, in 1994, at the request of the City of Huntington Beach, the Executive Director undertook an investigation and made a report to the Commission concerning ORA-83. The Coastal Development Permit actions and Executive Director report are reviewed below:

#### **5-83-984**

The first coastal development permit for archaeological activity on the project site was permit 5-83-984, granted to Signal Landmark on April 11, 1984 for Phase I of "Final Research and Data Recovery Program" on ORA-83, known as the Cogged Stone Site. . The archaeological testing program was a five-step program which involved (1) an extensive survey and evaluation of all recorded prehistoric sites (done in 1970); (2) a series of archaeological test excavations (done between 1971 and 1975); (3) an evaluative report based on a synthesized data from all test excavations (prepared in 1975); (4) an archival research focused on understanding the nature and extent of man's historic

disturbances of the site with particular emphasis on delineating portions of the site likely to be least disturbed and worthy of further archaeological work (undertaken in 1981 and 1982); and (5) a final research and salvage program to define the remaining remnants of archaeological midden which still existed on the subject site. This permit was to allow the applicant to do further testing in order to determine the nature of the relationship between the surface concentration of cogged stones (that had been long since collected) and the underlying midden deposit (that had been heavily disturbed). The permit dealt with two main areas within ORA-83: the plowed field and the area around the eucalyptus grove. It was determined that the greatest amount of cultural material (which consists mostly of shell) was located within the eucalyptus grove since the presence of trees discouraged grading and plowing over the years. The narrow strip of land directly adjacent and north of the trees and a small area east of the grove were determined to contain shallow deposits of basal midden.

The Commission imposed one special condition on permit 5-83-984. The Commission required that the Archaeological Research Design be modified to provide (1) clarification that preservation of all or part of the site may be appropriate depending on the results of the exploratory phase of the investigation; (2) clarification that the augering program was principally for delineating site boundaries; (3) definition of the term "disturbed" as used in the research design, and (4) provision for Executive Director review and approval of the work planned in subsequent tasks after Task 5 (Auger Program) and Task 7 (Hand Excavation Units – Initial series).

Prior to the issuance of this permit in 1984 the Research Design for the first phase of the project came under much scrutiny and opposition by the general public, several archaeologists and Native American groups as well.

### **5-83-702-A3<sup>12</sup>**

The first coastal development permit for archaeological activity at ORA-85 the Eberhart Site, and ORA-289. The Signal landmark permit amendment for a testing and evaluation program for the two archaeological sites became effective on August 23, 1988, after no

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Coastal development permit application 5-83-702 and permit amendments 702-A and 702-A2 did not involve activity within any archaeological site. They were approved between September, 1983 and September, 1987 authorizing geotechnical trenching and soil borings to determine the location of faults and to gather other geotechnical information on the Bolsa Chica Mesa and the Lowlands. The original 1983 permit was granted to Signal Landmark and the Huntington Beach Company. The first permit amendment was granted to Signal Landmark and the permittee of the second amendment was Signal Landmark Inc. On behalf of Signal Bolsa Corporation.



objection was received of the Executive Director's determination that the permit amendment was consistent with the Coastal Act.

**5-89-772**

This coastal development permit application, granted to Signal landmark Inc. on December 14, 1989 approved Phase II of the Final Research and Salvage Program for ORA-83, the Cogged Stone Site. This work represented the second half of the last stage of the five step archaeological program for ORA-83 that began with the work approved under permit 5-83-984 in 1984. One key element of the program was to ensure that it contributed to the understanding of history or prehistory through a carefully thought out research design. By the time of this application, ORA-83 had been nominated for inclusion in the National Register of Historic Places and was recommended for this designation by the State Historic Resources Commission on November 4, 1982, based on the significance of the archaeological artifacts the site had produced.

The coastal development permit approved the excavation of 17 two-meter by two-meter hand units in six areas within the eucalyptus grove of the upper bench of the Bolsa Chica Mesa. However, if features or in-place cogged stones were found during the approved excavations, the excavation of additional intervening units would be allowed, if needed, in order to fully expose, document and remove those resources. The excavation of up to 12 additional units was authorized by the permit. The Commission imposed one special condition on the permit requiring the submittal of written evidence that the applicant had retained a County certified archaeologist to monitor the work approved by the permit and the submittal of evidence that a copy of the report on literature and records search and field survey for the site had been reviewed and approved by the Orange County manager of Harbors, Beaches and Parks. Further, the applicant was required to demonstrate that the proposed project had received review from the above designated County official, from members of the Pacific Coast Archaeological Society (PCAS), and from the Native American Groups (more particularly those who belong to the Juaneno and Gabrielino tribes).

In an attempt to avoid the controversy that surrounded permit 5-83-984, Commission staff met with representatives of the Juaneno and Gabrielino Indian tribal groups and the applicant's consulting archaeologist to determine who would represent both tribal groups in monitoring the proposed excavations. The applicant also published a notice in a local newspaper of general circulation of its application for a coastal permit for the proposed project.

**5-89-772-A1**

The first amendment to permit 5-89-772 was issued on March 8, 1991. The applicant requested an amendment to the special condition of the original permit requiring the review of the proposed archaeological testing and recovery plan by members of the Pacific Coast Archaeological Society (PCAS) because they had reached an impasse with the members of the group. The dispute was over the percentage and extent of ORA-83 that should be examined. The applicant proposed to excavate only 7 acres of the 11.9-acre site because it was the least disturbed. PCAS wanted 100% of ORA-83 to be sampled, including the plowed field area and suggested that it could be done using a fine-scale operation with heavy machinery, removing thin layers at a time, under archaeological supervision.

The Commission ultimately modified the special condition, not by removing PCAS, but by providing that any comments by PCAS be reviewed by a three member peer review team. Further, any conflicts between PCAS comments and the applicant's archaeologist's scope of work was to be resolved by the peer review team and by the State Office of Historic Preservation.

#### **5-89-772-A2**

This amendment request was to delete the requirement of review by the State Office of Historic Preservation (SOHP) from the special condition. The requirement for SOHP review had been added in 5-89-772-A1 to help mediate disputes between the applicant's archaeologist and the PCAS reviewers. The applicant requested this change because there was a delay in getting SOHP to review and comment on the project. Initially the Commission decided that review by SOHP should not be eliminated because the agency had continued to express a desire to do so. However, ultimately the State Office of Historic Preservation sent a letter stating that they would not be able to review and comment on the project due to staffing shortages. The Commission then approved the requested amendment.

#### **Executive Director Report to the Commission**

On February 28, 1994 the City of Huntington Beach requested that the Executive Director investigate and determine whether any of the Commission permits issued for testing and excavation within ORA-83 or the demolition of the adjacent World War II bunkers should remain in force or be rescinded. The Executive Director focused the investigation on whether there was any evidence that the permits were not in compliance with the terms and conditions of their approvals, and secondly, whether there was any merit to suspending any of the permits and processing a revocation request. The specific permits that were investigated were 5-89-772, as amended and 5-90-1143, a permit issued on September 27, 1991 for the demolition of the two World War II gun emplacements that were located adjacent to ORA-83.

The specific questions asked by the City to be investigated were: (1) was significant information concerning the presence of human remains on ORA-83 intentionally not

disclosed; (2) why were the discovery of human remains not reported to the County Coroner over a year after the discovery, in violation of the applicable law that they be reported within 24 hours of discovery, (3) was there an attempt to circumvent the system and its definition of proper handling of human remains, (4) had proper procedures (daily logs, preservation techniques, disposition of artifacts and timely reports) been followed in the work conducted at ORA-83, (5) should ORA-83 be designated a cemetery and remain intact, (6) the scientific integrity and cultural sensitivity of personnel performing work at ORA-83 and whether their work had been monitored by appropriate State agencies on a regular basis, (7) should the Archaeological Information Center at UCLA receive the extensive information that had been obtained from the site, (8) should the site be placed on the National Register of Historic Places as was previously recommended, and (9) should there be better legislation to protect archaeological sites like ORA-83.

The Executive Director's response to many of the above questions was that they were beyond the purview of the Coastal Commission and that some of the issues raised should be addressed by the Native American monitors and/or peer review team that were required by the permits to be consulted in decisions regarding certain aspects of the development. The Executive Director concluded that the applicant was in compliance with the terms and conditions of both permits and that there was no merit to the grounds for processing a revocation request.

#### **R5-89-772**

Although Commission staff held meetings between the applicant and the affected Native American groups and required the review of the proposed work by PCAS, the controversy surrounding ORA-83 did not end. On November 3, 1999 the Bolsa Chica Land Trust filed a request with the Commission to revoke the Phase II approval of the final research and data recovery program permit. The contentions raised in the revocation request were: that further archaeological work, not in the immediate vicinity of the eucalyptus grove, and therefore beyond the approved scope of work was occurring; that the permitted work has been completed in its entirety for over five years, that the permit is also ten years old and therefore should be revoked or suspended; that the work under the permit was not pursued with due diligence as required by the standard conditions of the permit; the additional scraping and clearing. The Commission denied the revocation request finding that it did not establish the grounds required to do so pursuant to Section 13105 of the Commissions' Regulations.

#### **K. CONSISTENCY WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

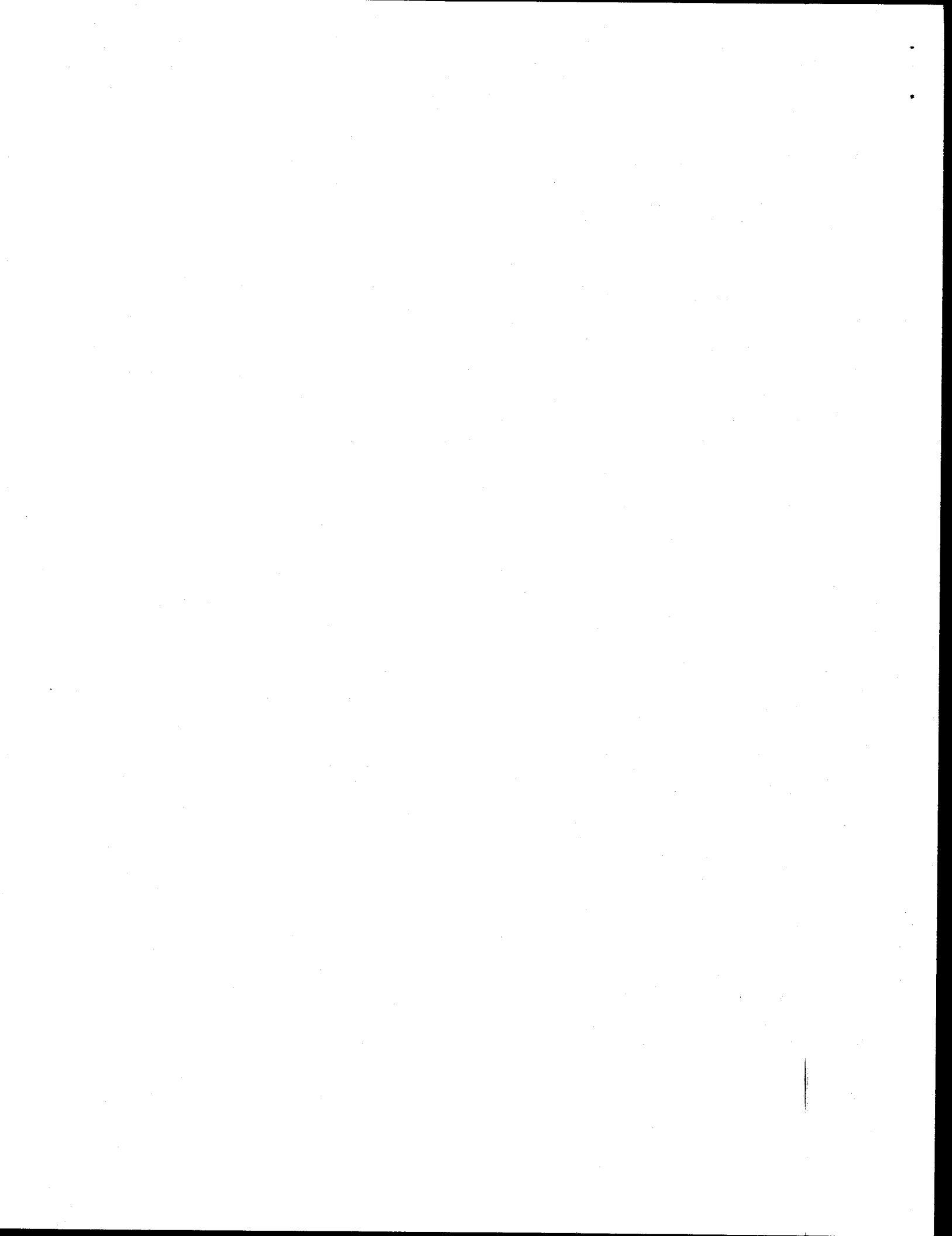
Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of coastal development permits to be supported by a finding showing the permit, as conditioned by any conditions of approval, to be consistent with any applicable

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.

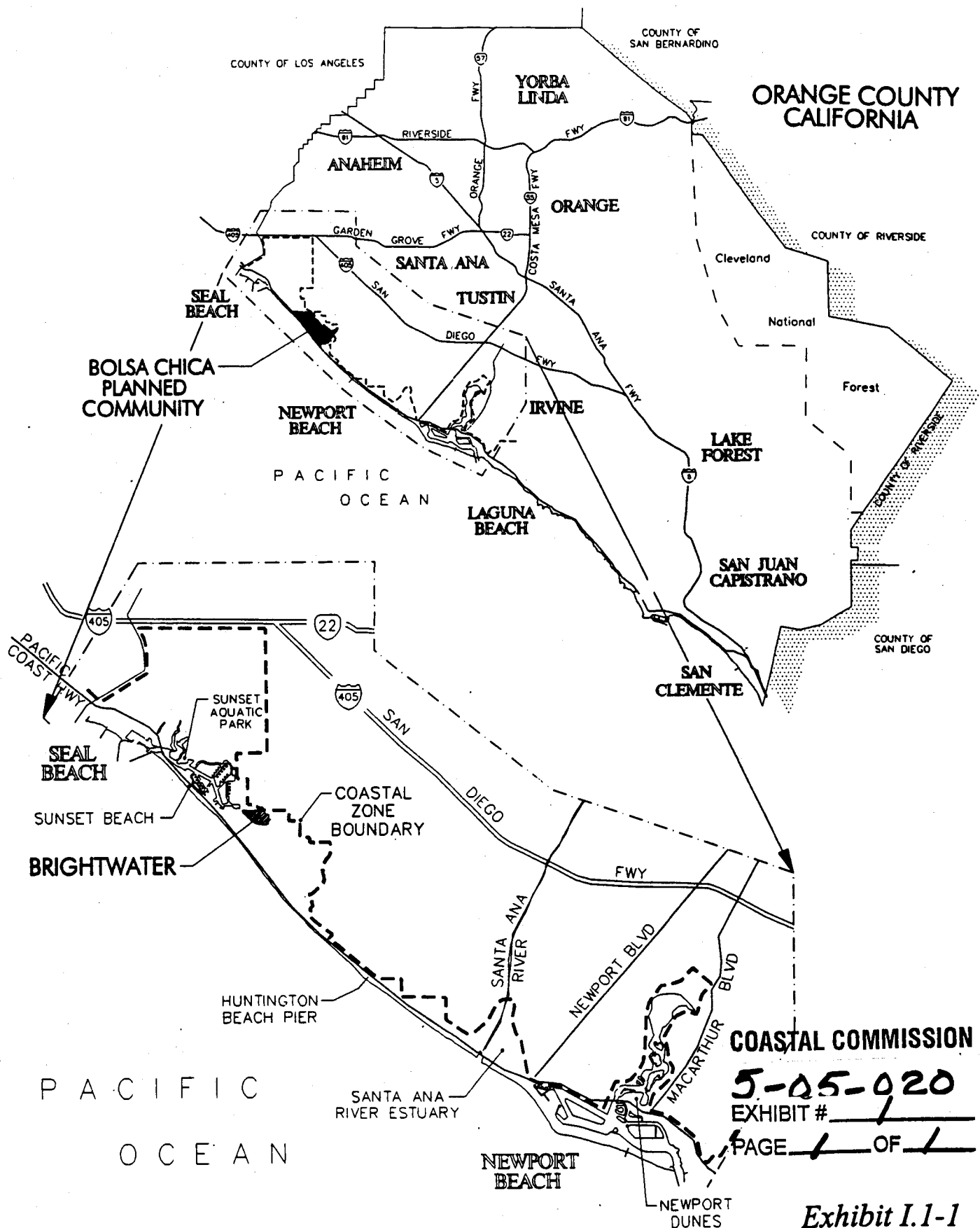
The proposed project has been conditioned to be found consistent with the biological resources, public access, water quality, and archaeology policies of the Coastal Act. The special conditions would require that 1) an open space restriction be placed on the habitat areas; 2) an offer to dedicate the proposed Coastal Sage Scrub and Native Grassland Creation habitat and Southern Tarplant and Seasonal Pond Environmental Protection Area be recorded; 3) a trail easement be offered over the public trail and over the portion of the grassland habitat area that will be subject to approved fuel modification; 4) a public access and habitat management program be developed and funding be identified to carry out these activities; 5) the applicant abide by the California Burrowing Owl Consortium guidelines for avoiding and mitigating impacts to burrowing owls during construction; 6) the CC&R's of the subdivision reflect certain requirements, primarily dealing with public access and habitat protection conditions; 7) construction and development phasing be carried out in a manner that is protective of the biological resources and assures that the public access and recreation are prioritized; 8) erosion control measures are in place to prevent impacts to the marine environment; 9) the fencing off of habitat areas and the identification of construction staging areas that will not adversely impact sensitive resources; 10) the preparation of a final habitat management plan with appropriately sized, planted and managed ESHA buffers, controls activities within those buffers, and the addition of the Southern Tarplant and Seasonal Pond Environmental Protection Area into the Plan; 11) native and non-native, non-invasive appropriate landscaping throughout the project area; 12) fuel modification within the ESHA buffer areas be regulated; 13) lighting be directed away from habitat buffer areas; 14) certain requirements relating to walls, fences, gates, safety devices and other habitat barriers be followed; 15) all subdivision streets, sidewalks, parking and trails and parks be open to the general public; 16) additional requirements on the proposed water quality management plan be observed; 17) a revised tentative tract map eliminating the proposed residual parcel on the lower bench, and revised plans showing the enlargement of the Eucalyptus Tree and Burrowing Owl ESHA buffers, public access signage and cultural resources interpretive plan along the habitat trail, revised stormdrain plan, and off-site raptor foraging habitat plans be submitted; 18) additional slope stability analysis for the revised grading plan be performed and the developer conform development plans to geotechnical recommendations; 19) the developer assume the risks of development; 20) the developer treat the exterior appearance of structures visible from the public areas; 21) the height of the structures abutting and visible from the public trails be kept to no more than 31.5 feet, as proposed; 22) procedures for the review and approval of future development be followed; 23) requirements and procedures established herein to be followed regarding the possible discovery of additional archaeological resources during grading; 24) the reports required to be prepared in conjunction with the research, investigation and salvage of ORA-83 and curation of the artifacts recovered from the archaeological site be disseminated; 25) the

5-05-020(Brightwater)  
Hearthside Homes/Signal Bolsa  
Page 111

applicant obtain all other necessary agency approvals; 26) the applicant perform work in strict compliance with all of the special conditions of this permit and 27) applicant be informed of the Commission staff's right to inspect the site.







COASTAL COMMISSION

5-05-020

EXHIBIT #

PAGE 1 OF 1

Exhibit I.1-1

Location Maps

BRIGHTWATER



NOT TO SCALE

FORMA  
MAY 2002

see 1/notes/cdp/01-03/exhibits/location.dwg

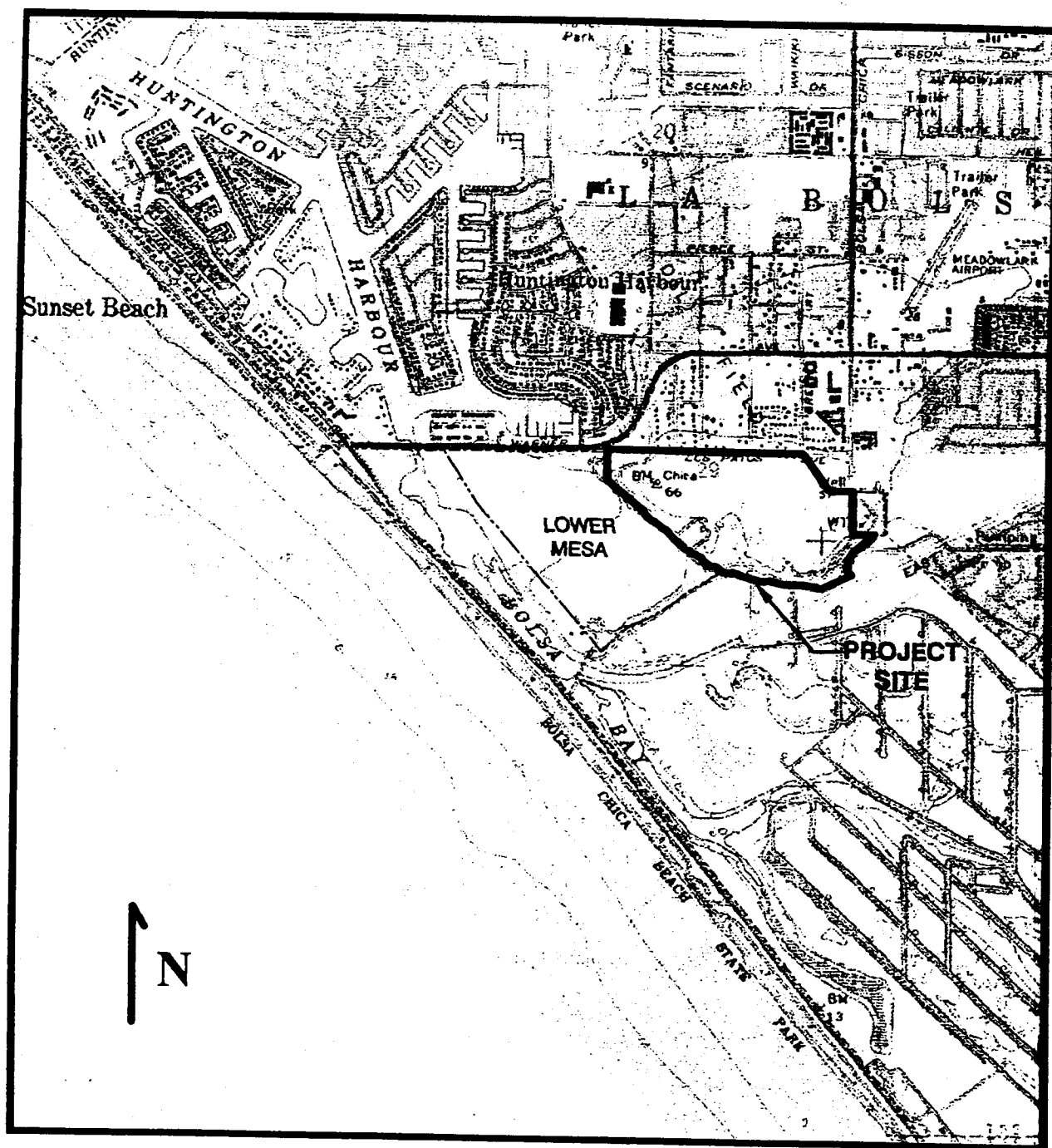


Figure 1. Map of Tentative Tract No. 15460 property. Scale 1:22,600.

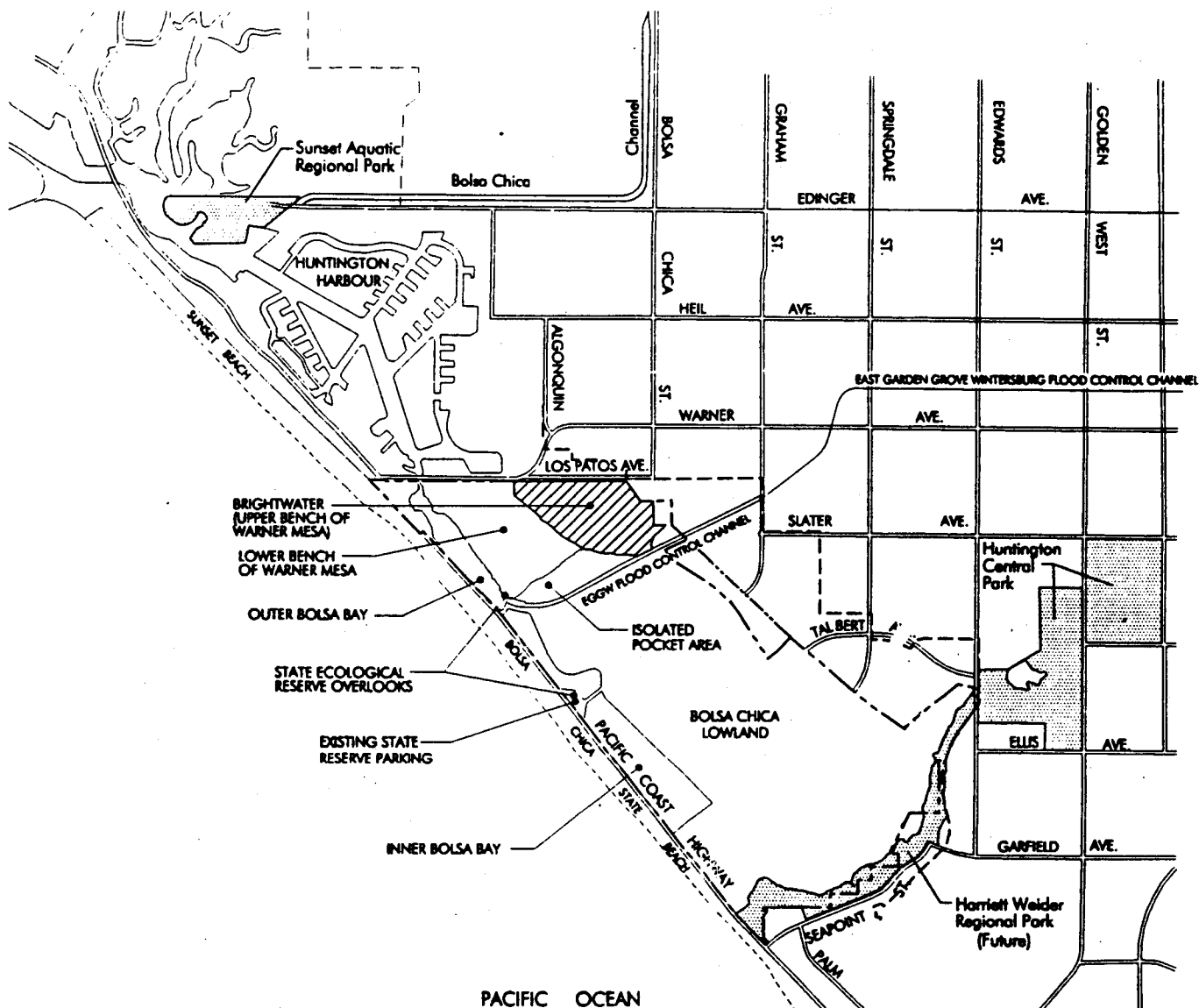
height of 55 feet on the mesa to a low of about 10 feet above mean sea level.

COASTAL COMMISSION


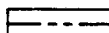
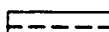
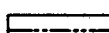
5-05-020

EXHIBIT # 1a

PAGE 1 OF 1



#### LEGEND

-  BRIGHTWATER PROJECT AREA
-  PLANNED COMMUNITY BOUNDARY
-  COASTAL ZONE BOUNDARY
-  COUNTY - HUNTINGTON BEACH BOUNDARY

COASTAL COMMISSION

5-05-020

EXHIBIT # 2

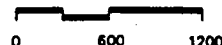
PAGE 1 OF 1

BRIGHTWATER

Exhibit I.1-2  
Vicinity Map

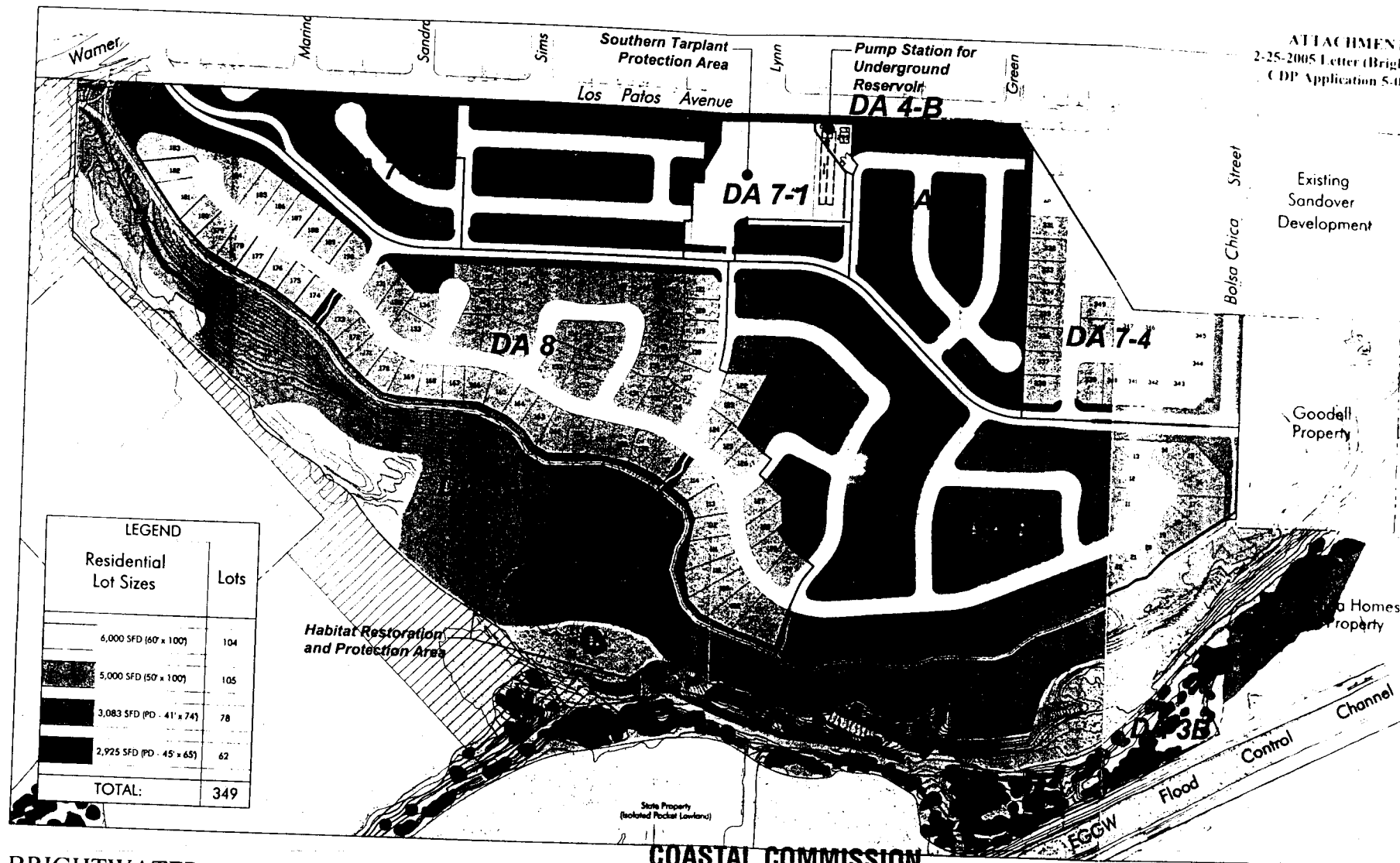


HEARTHSTIDE HOMES



FORMA  
MAY 2002

sys1/notes/cdp/01-03/exhibits/vicinity-map.dwg



BRIGHTWATER

COASTAL COMMISSION

Development Plan

EXHIBIT # 3  
PAGE 1 OF 1

COASTAL COMMISSION  
**5-05-020**

FORMA  
February 18, 2004



HEARTHSIDE HOMES, INC.

**RECEIVED**  
South Coast Region

MAR 11 2005

CALIFORNIA  
COASTAL COMMISSION

March 11, 2005

**Ms. Teresa Henry**  
**South Coast District Manager**  
**CALIFORNIA COASTAL COMMISSION**  
200 Oceangate, 10th Floor  
Long Beach, CA 90802-4302

**RE: CDP Application # 5-05-020**  
**Hearthside Homes • Brightwater Project**

Dear Ms. Henry:

Last week you indicated that Hearthside Homes needed to provide evidence by Friday, March 11, 2005 that the Orange County Fire Authority (OCFA) had approved a Conceptual Fuel Management Plan for Brightwater. Hearthside is unable to fully comply with this request because the OCFA will not complete their review of the plan until the week of March 14, 2005. However, we have received initial feedback from OCFA regarding certain aspects of our Fire Management Plan, and we want to make you aware of their most significant comment.

As you know, Hearthside is proposing to plant native grassland and coastal scrub in the 150- to 382-foot-wide open space area between the homes and the Eucalyptus ESHA. For public safety, the plant palette also must comply with OCFA requirements for fire fuel management. OCFA completed an initial review of our new plant palette and fire protection methods on March 1, 2005. In their review, OCFA indicated that, although the plant material we proposed for this area complies with OCFA Guidelines, they were concerned that, in the event of a severe drought, even these low-fuel plants could pose a fire risk. Consequently, OCFA is requiring the installation of a permanent stand-by irrigation system within the fifty feet closest to the rear property lines of the homes, to provide moisture for plants during severe drought conditions. Hearthside has submitted a revised Fuel Management Plan dated March 10, 2005 to OCFA incorporating this limited irrigation system into the fifty feet closest to the homes. OCFA staff has stated that they can complete their review of our revised plan the week of March 14, 2005.

**COASTAL COMMISSION**  
**5-05-020**

EXHIBIT # 4  
PAGE 1 OF 6

Ms. Teresa Henry  
South Coast District Manager  
California Coastal Commission  
March 11, 2005  
Page 2 of 2

We are aware of your concerns regarding the installation of any improvements, including irrigation within a "habitat buffer." With this in mind, the fifty feet closest to the homes will not be classified as habitat buffer, but rather as an "ecotone area" that serves as a transition between the habitat buffer and the residential development. The ecotone area will contain native plant species, the six-foot-wide public trail, as well as irrigation improvements. This first fifty feet behind the rear property lines will be followed by the proposed 100- to 332-foot-wide habitat buffer that will consist solely of native grassland and coastal scrub plant species.

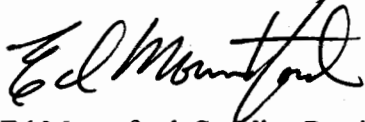
Attached is a copy of the revised Fuel Management Plans that we submitted to OCFA. The revised plans show the fifty-foot-wide area behind the homes as an ecotone area containing six native plant species, the six-foot-wide public trail, and the underground irrigation system. Once established, the fifty-foot ecotone area will be visually indistinguishable from the 100- to 332-foot-wide habitat buffer area and function almost identically from a biological perspective.

While our biological team believes that there is no difference in terms of habitat quality between the ecotone area and the buffer area, we are mindful of Commission Staff's position regarding improvements in habitat buffers and we offer the proposed reclassification of the open space area along the southern perimeter of the project as a way to reach agreement with staff regarding the components of the habitat protection program.

We would be happy to discuss this issue in more detail when we meet at the site next week. If you have any questions, please call me at (949) 250-7760.

Sincerely,

HEARTHSIDE HOMES, INC.



Ed Mountford, Sr. Vice President

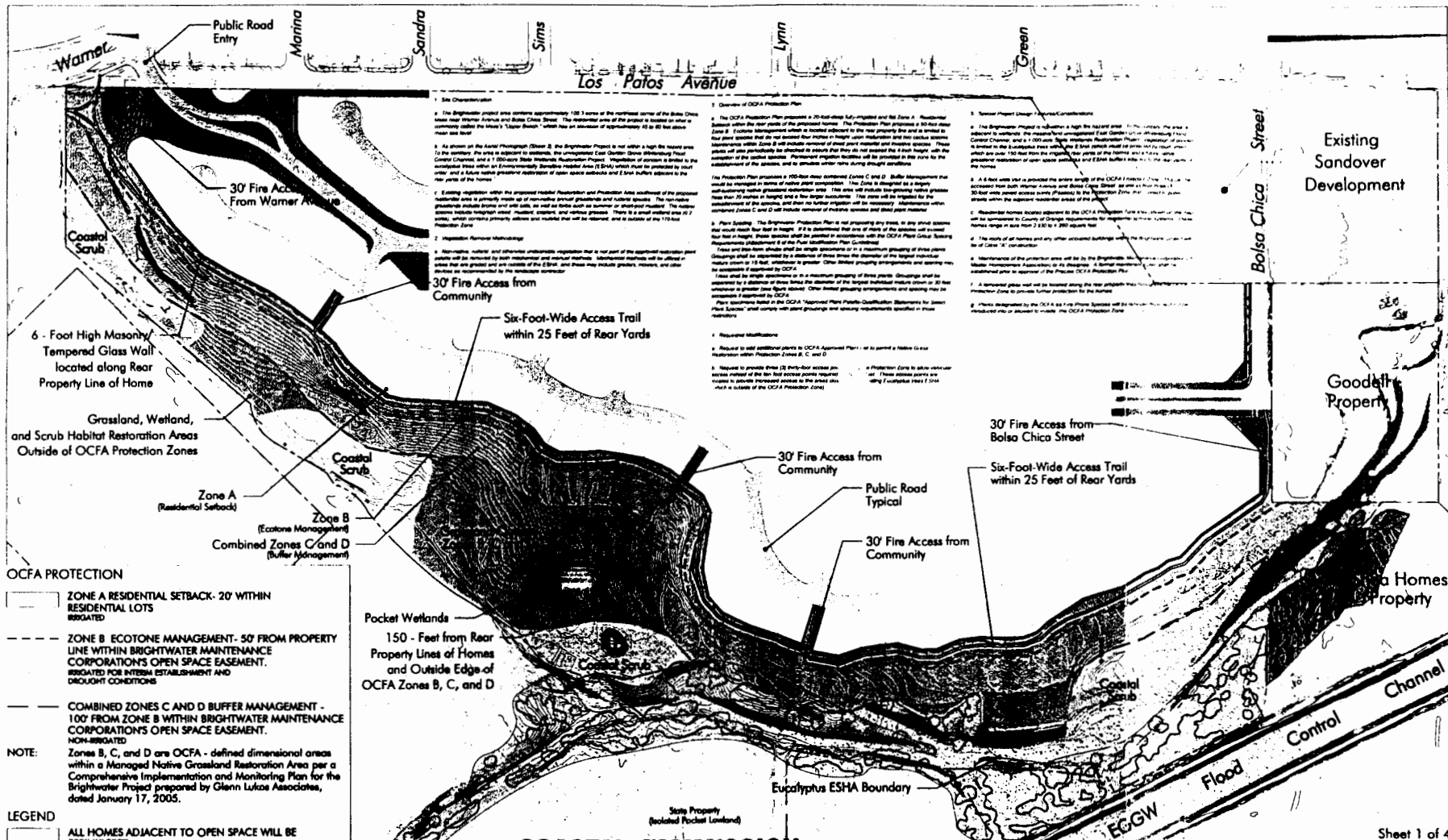
cc: John Dixon / Mark Johnsson / Jack Gregg, San Francisco Office  
California Coastal Commission  
Deborah Lee, San Diego Coast District Office  
Tony Bomkamp, Glenn Lukos Associates  
Art Homrighausen, LSA Associates, Inc.

Attachments

COASTAL COMMISSION

EXHIBIT # 4  
PAGE 2 OF 6





Sheet 1 of 4

BRIGHTWATER

# COASTAL COMMISSION

Sheet 1 of 4

*Conceptual Plan*  
*OCFA Protection Zones and Program Description*

EXHIBIT # 4  
PAGE 3 OF 6

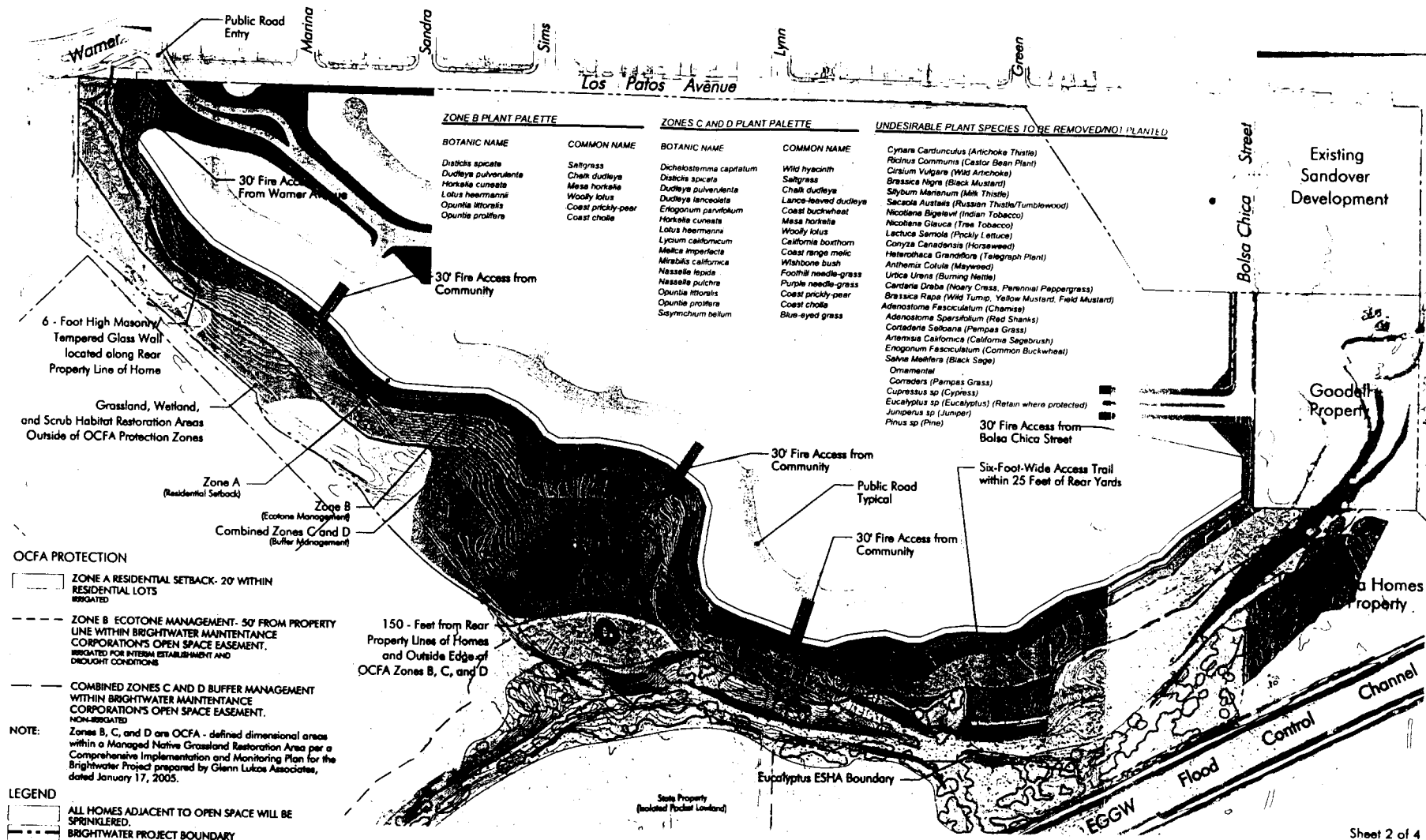




0 50 100 200

MARCH 10, 2025

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BRIGHTWATER

COASTAL COMMISSION

Sheet 2 of 4  
Conceptual Plan  
Plant Palette for Open Space and ESHA Buffer

EXHIBIT # 4  
PAGE 4 OF 6

0 50 100 200  
FORMA  
SCALE 1" = 100'

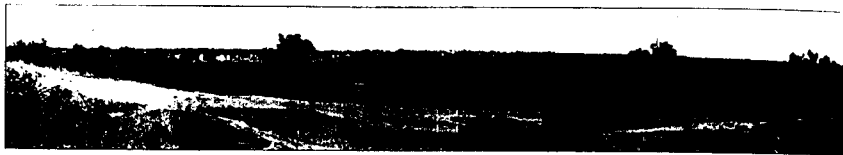


Photo 1



Photo 2

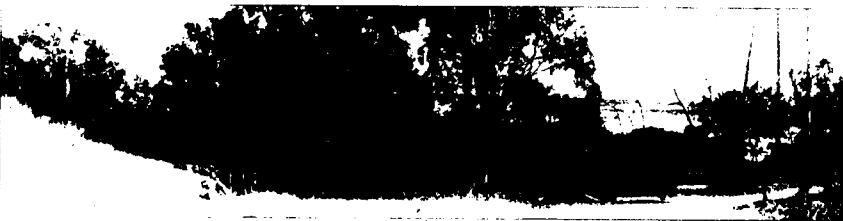


Photo 3



Photo 4

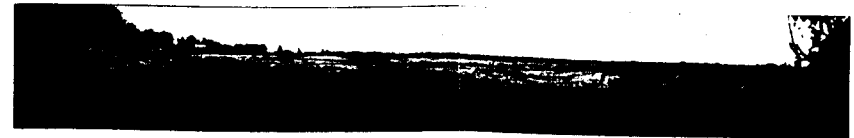
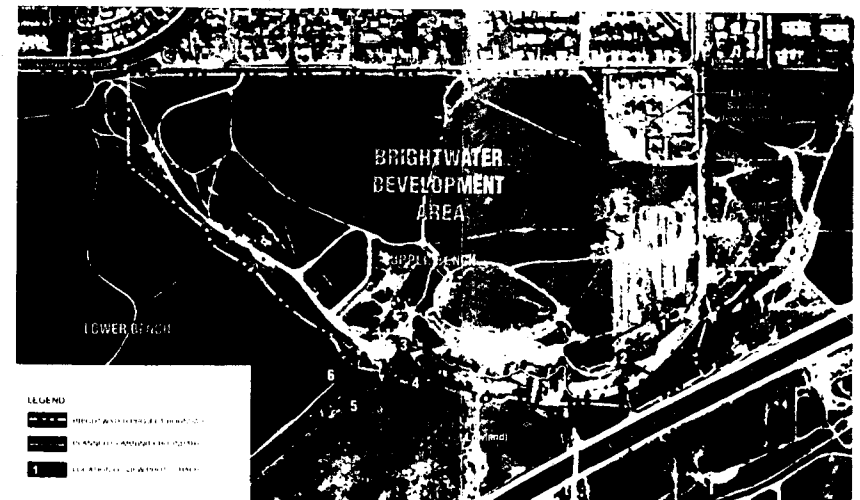


Photo 5



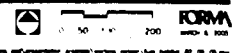
Photo 6



Key Map for Photographs

Sheet 3 of 4

Conceptual Plan  
Photographs of Existing Eucalyptus ESHA Within and Adjacent to Development Area



COASTAL COMMISSION

BRIGHTWATER

EXHIBIT # 4  
PAGE 5 OF 6

### APPLICABLE REQUIREMENTS FROM OCFA GUIDELINES FOR FUEL MODIFICATION AND MAINTENANCE

## V ZONE A -IRRIGATED RESIDENTIAL SETBACK ZONE

The purpose of the irrigated residential setback zone is to provide a defensible space for fire suppression forces and to protect structures from radiant heat and convective heat. No combustible construction shall be allowed within the 20-foot setback zone (Zone A). This zone is to be located on a level graded area within the residential portion of the development.

### Zone A - Specific Requirements

- Automatic irrigation systems to maintain healthy vegetation with high moisture content
- Pruning of foliage to reduce leaf load, vertical continuity, and removal of plant litter and dead wood
- Complete removal of fire prone plant species, minimal allowance for retention of selected native vegetation
- Plants in this zone shall be highly fire resistant
- Tree species are not allowed within 10 feet of combustible structures (measured from the edge of a full growth crown)
- Special consideration should be given for rare and endangered species, geologic hazards, tree ordinances, or other conflicting restrictions
- Ongoing maintenance, including removal and/or thinning of undesirable combustible vegetation, replacement of dead/dying fire resistant plantings, maintenance of the operations integrity and programming of the irrigation system, regular trimming to prevent ladder fuels
- A six-foot combination masonry and tempered glass wall will be located along the rear lot line of all homesites that are within the Brightwater Protection Zone

## VI ZONE B - IRRIGATED ECOTONE MANAGEMENT ZONE

*This 50-foot-deep portion of the OCPA Protection Zone will consist of native low-growing species (less than four inches in height) and two selected each that contain low fuel loads as described on the plant palette*

### Zone B - Specific Requirements

All existing non-native species within this zone will be removed. Permanent irrigation will be provided to establish the plants and assure deep root growth. Upon establishment of the plants, irrigation will be resumed in drought conditions to simulate winter rains. Plants will be inspected monthly for the first 18 months, and quarterly thereafter for the first 5 years to assure establishment, and removal of dead and non-native species. After establishment, plants will then be inspected to assure that they do not exceed their 4-inch growth maximum, except for the cacti. A six-foot trail is provided along the entire length of Zone B that will allow greater access and further reduce the fuel load. As in Zone A, combustible construction is not allowed within Zone B.

## VII. ZONES C AND D - NON-IRRIGATED BUFFER MANAGEMENT ZONE

This 100-foot-deep portion of the OCFA Protection Zone will consist of non-irrigated native grassland species and selected succulents that contain low fuel loads as described on the plant palette.

### **Zones C and D - Specific Requirements**

All existing non-native species within this zone will be removed. Irrigation will be provided to establish the plants and assure deep root growth. Upon establishment of the plants, the irrigation system will be removed. Plants will be inspected monthly for the first 18 months, and quarterly thereafter for the first 5 years to assure establishment, and removal of non-native species. Maintenance within combined Zones C and D will include removal of invasive species and dead plant material. As in Zone A, combustible construction is not allowed within Combined Zones C and D.

S.C. no thinning, pruning, mowing or mechanical clearance  
S. 4 of 4 has 347 lots

**COASTAL COMMISSION**

EXHIBIT # 7  
PAGE 6 OF 6

BRIG

## XI. IMPLEMENTATION & REQUIRED INSPECTIONS

*(Note: This section shall be placed verbatim on the Precise OCFA Protection Plan.)*

- **Prior to Building Permit Issuance:** The developer shall complete that portion of the approved OCFA Protection Plan determined to be necessary, by the OCFA prior to the introduction of any combustible materials into the area. This generally involves removal and thinning of plant materials indicated on the approved plan.
  - **Prior to Issuance of Certification of Occupancy:** The OCFA Protection Plan must be installed, completed, and inspected. This includes physical installation of features identified in the approved precise plan (including, but not limited to, plant establishment, thinning, temporary irrigation, zone markers, access easements, etc.). An OCFA Fire Inspector will provide written approval of completion at the time of this final inspection.
  - **Prior to Brightwater Maintenance Corporation (BMC) Acceptance:** This activity must include the OCFA Fire Inspector and the following representatives:
    - Landscape design professional/Glenn Lukos Associates
    - Installing landscape contractor
    - BMC management representative
    - BMC landscape maintenance contractor
- The OCFA Protection Plan shall be maintained as originally installed and approved. A copy of the approved plans must be provided to the BMC representatives at this time. Landscape professionals must convey ongoing maintenance requirements to BMC representative.
- Annual Inspection and Maintenance:** The individual property owners and BMC are responsible for all maintenance of the OCFA Protection Plan. All areas must be maintained in accordance with the approved protection plan. Other activities include maintenance of temporary irrigation systems, replacement of dead or dying vegetation with approved materials, removal of dead plant material, and removal of undesirable species. The OCFA conducts regular inspections of established OCFA protection areas. Ongoing maintenance shall be conducted regardless of the date of these inspections.
- **Brightwater Maintenance Corporation (of Homeowners Association) Conditions, Covenants and Restrictions (CC&Rs)** The following notes shall be incorporated into the Brightwater Homeowners Association CC&Rs:
- The CC&Rs shall contain all of the language from Attachment S of the Fuel Modification Guidelines.
  - The CC&Rs shall be reviewed by OCFA prior to approval of a Precise OCFA Protection Plan, and shall be approved by OCFA prior to recordation.
  - The CC&Rs shall state that there are restrictions on the types of plants used within the OCFA Protection Zones. All plants shall be approved by OCFA prior to planting.
  - The CC&Rs shall state that no combustible structures or construction is permitted in Protection Plan Zone "A".



## KEY MAP

Sheet 4 of 4

## Conceptual Plan OCFA Requirements

**FORMA**

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portion of existing Parcel 2 that is included in the proposed subdivision. The applicant stated that this residual lot is not a part of this application. Because no grading or construction is proposed, this does not constitute development. Staff disagrees.

(LOS PATOS)

(BOLSA  
CHICA  
STREET)  
↓

### PARCEL 2

CERT OF COMP. NO. CC 92-01  
(REC. 9-2-92 AS  
INST. NO. 92-589755, O.R.)

(Ocean View  
School District  
Property)

COASTAL COMMISSION 92-174  
PARCEL 2, 2.1 AC. 911W  
RE-DEVELOPMENT OF OCEAN VIEW  
NEW PLACE (FORMERLY A CONDOMINUM  
PROJECT) PER R.S.B. 92-173-25

LIMITS OF BRIGHTWATER  
DEVELOPMENT

(WETLANDS)

8.2-Acre Parcel Acquired by Signal Landmark  
from Metropolitan Water District (MWD) in  
May 2002.

BRIGHTWATER

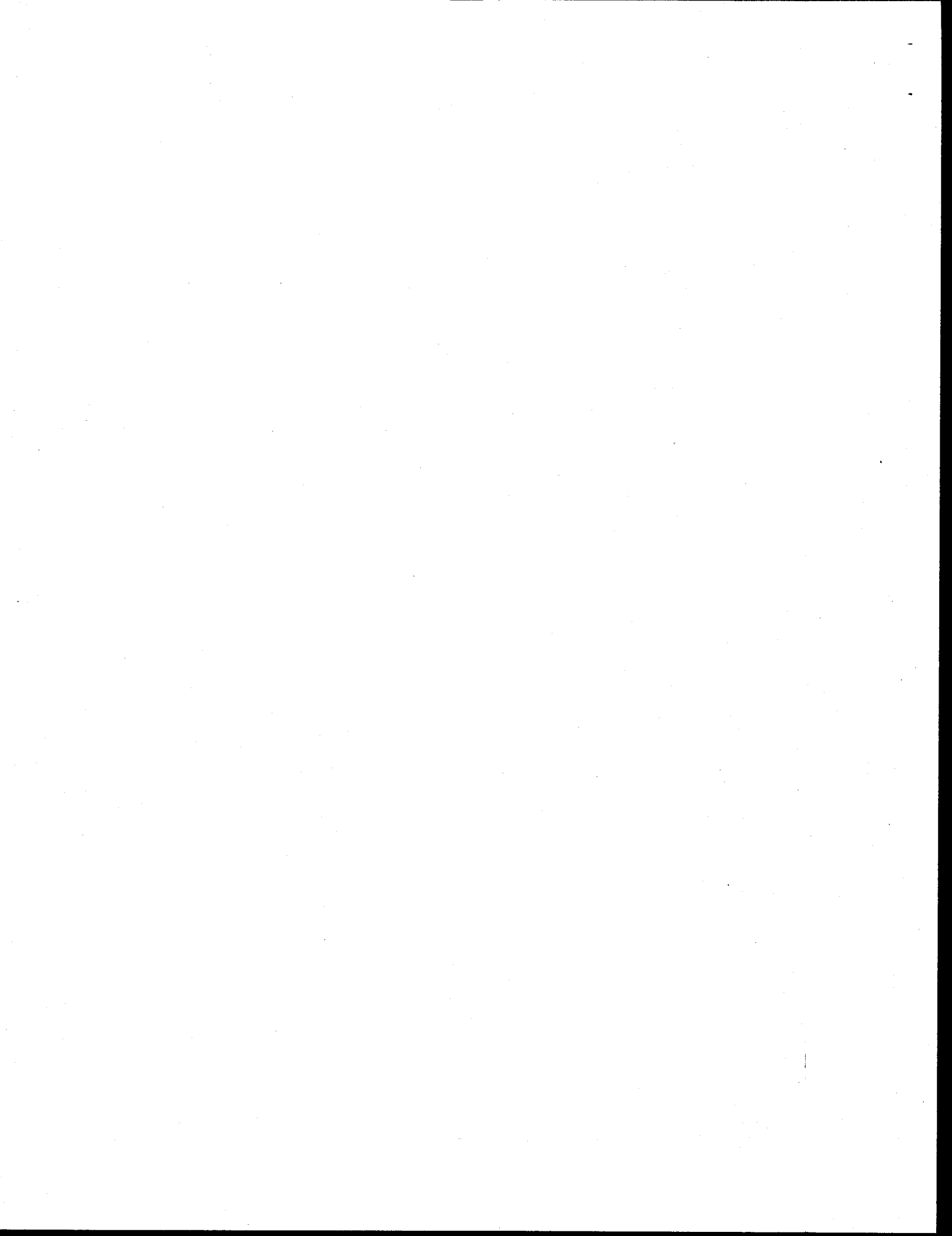


COASTAL COMMISSION  
5-05-020

EXHIBIT # 5  
PAGE 1 OF 1

Parcel 2 and Parcel Acquired from MWD  
Attachment to Brightwater CDP Application









HEARTHSHIDE HOMES

July 12, 2004

Teresa Henry, District Manager  
California Coastal Commission  
200 Oceangate, 10<sup>th</sup> floor  
Long Beach, CA 90802-4416

**RECEIVED**  
South Coast Region

JUL 13 2004

CALIFORNIA  
COASTAL COMMISSION

**Re: Coastal Development Permit Application No. 5-04-192 (Brightwater, Bolsa Chica)**

Dear Teresa:


Pursuant to your request for information regarding the Lower Bench of Bolsa Chica Mesa, enclosed please find a copy of the draft Purchase and Sale Agreement and Escrow Instructions between Signal Landmark and the State of California for the acquisition of 103 acres on Bolsa Chica Mesa referred to as the Lower Bench. Upon approval of the acquisition by the State Wildlife Conservation Board (a copy of the Wildlife Conservation Board's August 12, 2004 Agenda is enclosed), the shareholders of Signal Landmark and satisfaction of all other conditions to the close of escrow, these 103 acres would be acquired by the State for conservation purposes.

As we have discussed during the pendency of our application for the Brightwater project, most of the Lower Bench is a separate legal parcel which is not a part of our Brightwater application. During our discussions regarding the Brightwater application, the Coastal Commission staff has indicated great interest in the future use and disposition of the Lower Bench. I trust that the enclosed document provides you with the information you need with respect to the future use and disposition of the Lower Bench.

You have also requested that we amend our current application to address the future use and disposition of the 11.8-acre remainder parcel which was included in our application. When the application was originally filed and deemed complete, no land uses for the remainder parcel were identified. It was simply identified in the proposed tentative tract map as being "Not a Part" of the proposed subdivision, and no uses for that remainder parcel were proposed. The remainder parcel, however, is part of the 103 acres that is proposed for acquisition by the State and upon the close of escrow will be transferred to the State for conservation purposes. Therefore, we respectfully request that the project description for Coastal Development Permit Application No. 5-04-192 be amended to reflect that the remainder parcel is within the 103 acres covered by the Purchase and Sale Agreement and Escrow Instructions, and is proposed to be sold to the State of California for conservation purposes.

We trust that the enclosed agreement and our proposed modification to our project description respond to your request.

Very truly yours,

  
Ed Mountford, Sr. Vice President

COASTAL COMMISSION  
**5-04-192**  
EXHIBIT # 6  
PAGE 1 OF 1



HEARTHSIDE HOMES

September 13, 2004

Teresa Henry, District Manager  
California Coastal Commission  
South Coast Area Office  
200 Oceangate, Suite 1000  
Long Beach, Ca. 90802-4302

**RECEIVED**  
South Coast Region

SEP 17 2004

CALIFORNIA  
COASTAL COMMISSION

**Re: Disposition of the Lower Bench of the Bolsa Chica Mesa**

Dear Teresa:

As a follow up to our conversation last week, I am writing to suggest a couple of alternative solutions to the concerns you have raised regarding the Commission's need for assurances that Hearthside Homes's affiliate, Signal Landmark will complete the sale of the Lower Bench of the mesa to the State if a Coastal Development Permit (CDP) is approved for our Brightwater project on the Upper Bench of the mesa. First, let me take this opportunity to reiterate the company's position regarding the Lower Bench.

Hearthside Homes has worked for the last four years to accomplish the land use goals for Bolsa Chica proposed by the Coastal Commission in November 2000 – concentrate residential development on the Upper Bench and preserve the Lower Bench as open space. We believe Signal Landmark's agreement with the Wildlife Conservation Board ("WCB") to sell the Lower Bench to the State so it can be added to the existing Bolsa Chica Ecological Reserve, coupled with a scaled down residential development on the Upper Bench, is entirely consistent with the Commission's November 2000 proposed land use plan for Bolsa Chica.

A conservation easement over the Lower Bench, as suggested by the Commission in 2000, is one means of ensuring the property remains as open space in perpetuity. However, it is limited in its ability to effectively protect habitat and provide public access. We believe that State ownership of the property achieves greater compliance with the Coastal Act and is more protective of coastal resources than having the property remain in private ownership. For example, incorporating the Lower Bench into the State Ecological Reserve would allow the California Department of Fish and Game ("DFG") to properly manage the property, undertake upland habitat restoration and more efficiently patrol and monitor the area (since DFG is already present on a portion of the mesa where the overlook is located) to enforce State resource protection regulations. DFG may also allow some limited public access to the property. None of these opportunities would exist if the property remains in private hands.

As we have discussed on several occasions, Hearthside Homes believes that amending our Brightwater application to include the Lower Bench of the mesa would violate the terms of the Purchase and Sale Agreement between Signal Landmark and the Wildlife Conservation Board. Article 4.6 of the Purchase and Sale Agreement states that Signal Landmark promises not to "...permit any lien, encumbrance, mortgage, deed of trust, right, restriction or

5-05-020  
EXHIBIT # 6a  
PAGE 1 OF 2

easement to be placed upon or created with respect to the Lower Bench". Amending our application to include the Lower Bench would expose Hearthside to the possibility of a Commission decision imposing a conservation easement and jeopardize the agreement between Signal Landmark and WCB.

You have asked what assurances there are that, in the event the Commission approves the Brightwater project, Signal Landmark will complete the sale of the Lower Bench to the WCB. This is a valid concern. We have given this considerable thought and can offer two alternative solutions for the Commission's consideration.

1) CDP is Issued, but Not "Effective" Until Close of Escrow.

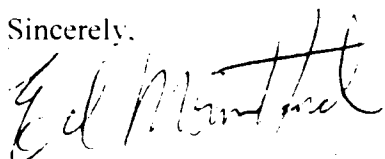
The simplest solution is for the Commission to add a special condition to the Brightwater CDP providing for the issuance of the CDP upon satisfaction of all "Prior to Issuance" special conditions, but limiting the "effectiveness" of the CDP until the sale of the Lower Bench is completed (escrow closes). In other words, the CDP would be issued once all of the relevant project conditions of approval have been satisfied -- save the close of escrow condition -- but would not become effective (i.e., no physical development would occur) until the permittee and Commission receive confirmation that escrow closed. Hearthside will not agree to a special condition that requires escrow to close prior to the issuance of the CDP.

2) CDP is Released From Escrow Upon Close of Escrow.

The second solution is more cumbersome because it would necessitate amending the Purchase and Sale Agreement. The Purchase and Sale Agreement (Article 6 - Conditions Precedent to Closing) obligates Signal Landmark to deliver into escrow the deed to the Lower Bench. WCB is obligated to deliver into escrow the funds to be used to pay the purchase price. At the close of escrow WCB receives the deed to the Lower Bench and Signal Landmark receives the purchase price. The Commission could add a special condition to the Brightwater CDP requiring that the escrow instructions in the Purchase and Sale Agreement be amended to include an additional Condition Precedent to Closing that would require the Commission's Executive Director to deliver the CDP into escrow once all of the "Prior to Issuance" conditions of approval for the Brightwater CDP have been satisfied. At the close of escrow the WCB receives the deed to the property and Signal Landmark and Hearthside receive the purchase price and the CDP for the Brightwater project.

If either of these alternatives appear feasible from your perspective, we should meet to discuss them in more detail. If you have any questions please call me.

Sincerely,



Ed Mountford: Sr. Vice President

5-04-192

COASTAL COMMISSION

EXHIBIT #

6a

PAGE

2 OF 2



## HEARTHSIDE HOMES, INC.

September 14, 2004

Ms. Teresa Henry,  
District Manager/Project Analyst  
South Coast Area Office  
CALIFORNIA COASTAL COMMISSION  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302

**RE: Four Amendments to Project Description  
Brightwater CDP Application 5-04-192 (Hearthside Homes)**

Dear Ms. Henry:

As we discussed during the meeting in your office on September 2, 2004, Hearthside Homes is revising the Brightwater project to address some of the issues raised in your July 24, 2004 staff report.

This letter transmits four (4) revisions that Hearthside Homes has made to the Brightwater site plan. These revisions are depicted on a series of text and graphic attachments to this letter. Hearthside Homes is formally requesting that the project description for Coastal Development Permit Application (CDP) 5-04-192 be amended to reflect these changes, which are summarized below.

**Attachment 1 is the Revised Southern Tarplant On-Site Preservation and Translocation Plan, prepared by LSA Associates and dated September, 2004.** The previous translocation plan, which would have translocated some Tarplant from the upper to the lower bench of the Bolsa Chica Mesa, has been modified by LSA to retain on the upper bench all of the Tarplant that currently exists in three (relatively small) areas on the upper bench. The modified plan preserves Tarplant located within the footprint of the seasonal pond near Los Patos Avenue. Nearby Tarplant that is located outside the footprint of the seasonal pond will be translocated to a contiguous area around the seasonal pond that will be fenced. The protected Tarplant area will, in turn, be surrounded by a 50-foot-deep buffer of native plantings. The plant palette for this buffer was approved by the California Department of Fish and Game for the Upland Habitat Park. The remaining two small areas of Tarplant on the upper bench are located within the Upland Habitat Park. These will be preserved and translocated within the same two areas of this nature park. They too will be surrounded by native plantings per the plant palette approved by CDFG for the park.

5-04-192  
EXHIBIT # 6b  
PAGE 1 OF 1

Ms. Teresa Henry,  
District Manager/Project Analyst  
South Coast Area Office  
CALIFORNIA COASTAL COMMISSION  
September 14, 2004  
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**Attachment 2 is the Revised Public Access Plan prepared by FORMA Design, dated September 13, 2004.** The previous public access plan has been modified to allow the general public – both pedestrians and bicyclists – to access into and through the residential area of the Brightwater project from six (6) different locations around the perimeter, including the two (2) primary resident entries (at Bolsa Chica Street and Warner Avenue) and three (3) pedestrian paseos that connect the residential area to the Upland Habitat Park. The sixth entry was added from Los Patos Avenue – through the Homeowners Recreation Area – to improve public convenience from the 144 new parking spaces that will be located along this roadway when it is fully widened and improved.

The CC&Rs for the Brightwater Community Maintenance District have been revised to ensure that the public pedestrian/bicycle access points will remain unlocked and open to the public during daylight hours. The revised public access plan retains all previously proposed components, including a public park road, 30 public parking spaces, interpretive trails, and a Class I pedestrian and bicycle trail through the length of the Upland Habitat Park.

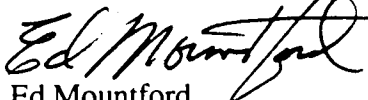
**Attachment 3 is the Revised Water Quality Management Plan prepared by The Keith Companies and dated September 9, 2004.** This revised plan incorporates the additional measures suggested by Commission Staff, in particular, the addition of Continuous Deflection Separator (CDS) Units into the design of the storm water infrastructure system. This change is illustrated on a revised Figure 3. Storm Water Flow with Constructed Wetland Areas. Also, the constructed wetland (vegetated treatment system) has been updated to reflect 13 years of rainfall records instead of 8 years, and the entire system has been upgraded to meet all current agency standards. In all pages 12-16, 22-23, and 45 were revised by The Keith Companies to update the WQMP.

**Attachment 4 is the Revised Public Trails Plan prepared by FORMA Design and dated September 13, 2004.** This revised plan relocates the Public Class I Pedestrian/Bicycle Trail within the Upland Habitat Park further away from the Eucalyptus ESHA as requested by Coastal Staff. As redesigned, the public trail is now located a minimum of 75 feet away from the ESHA.

In conclusion, if you have any questions regarding this request to amend our CDP Application 5-04-192 (Brightwater), to incorporate the four (4) changes described above, please call me at (949) 250-7760.

Sincerely,

HEARTHSIDE HOMES, INC.



Ed Mountford  
Senior Vice-President

5-04-192

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Existing Hydrology / Drainage Conditions





Proposed Hydrology / Drainage Conditions



## CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400



March 29, 2005

## MEMORANDUM

To: Peter Douglas, Executive Director  
Teresa Henry, Coastal Program Manager  
From: Jack Gregg, Water Quality Supervisor  
Re: Brightwater Water Quality Management Plan

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The 105.3 acre Brightwater project site is to consist of 349 single family residences, a 1.2 million gallon underground drinking water reservoir, public streets and sidewalks, two small public parks and 37 acres of open spaces area. The impervious surfaces and activities associated with this scale of residential development represents a potentially significant impact to coastal resources, including portions of the Bolsa Chica wetlands, Huntington Harbor and ocean waters. The County of Orange required the preparation of a hydrology/water quality study in the review of the project at the local level. The applicant also prepared a Master Drainage Plan, Storm Water Pollution Prevention Plan (SWPPP), and Water Quality Management Plan (WQMP). These documents and revisions were submitted to Commission staff and reviewed by the Commission's Water Quality Unit.

**Background**

The Brightwater development site is currently undeveloped and no off-site drainage flows onto the site. The mesa is vegetated with primarily non-native grassland, ruderal vegetation and several vegetated ESHA. There are also approximately 17 acres of dirt roads or other non-vegetated areas on the site. The hydrology study evaluates the existing hydrologic condition and divides the site into several drainage areas. The majority of the project area drains to the south under existing conditions to depressional areas that act as detention basins. During larger rain events, runoff flows to the Isolated Pocket Lowland via an existing 24 inch corrugated metal pipe (CMP) southeast of the project site. The Isolated Pocket Lowland area is located between the EGGW Flood Control Channel (EGGW FCC) and the project site, and currently has no direct connection to the ocean. The Isolated Pocket Lowland area now belongs to the State and will be restored as part of the Bolsa Chica Wetlands Restoration Project. In the current wetland restoration plan, the Isolated Pocket Wetland will be connected to the EGGW Flood Control Channel through a culvert allowing salt water to enter the Isolated Pocket Wetland on a regular basis, but with a reduced (muted) tidal range.

The Brightwater development previously proposed to treat runoff from the 85th percentile storm events and dry season flows on-site by diverting runoff to a treatment wetland or Vegetated Treatment System (VTS) consisting of series of five freshwater ponds located within the proposed upland habitat park on the slope separating the upper and lower benches. The proposed treatment wetlands and associated detention basin have been eliminated from the Water Quality Management Plan under the current project because they were to be located within the burrowing owl environmentally sensitive habitat area (ESHA) and would have impacted significant populations of the Southern Tarplant. Under the current proposal an underground media filter system will treat all of the runoff from all storms up to and including the

85<sup>th</sup> percentile storm event and the first flush from larger storms. Where the previous WQMP proposed sending dry weather flows to the VTS for infiltration or evaporation, the current plan proposes to minimize these flows using efficient irrigation and sends any remaining dry weather flows to the sanitary sewer. Most of the impervious areas that were previously proposed in the nature park (a 12 ft. wide, approximately 3,500 ft. long paved pedestrian/bicycle trail, the extension of Bolsa Chica Street at 32 ft. in width, and 30 parking spaces) have now been eliminated. Now the only non-vegetated area in the 34-acre passive habitat park will be a 6-foot wide decomposed granite trail. The previously proposed VTS may have provided some additional benefits (e.g., wetland habitat, scenic values and groundwater infiltration), beyond the currently proposed underground media filter system, but could not be implemented on the surface area available without impacting existing habitat.

The applicant now proposes to consolidate runoff from 92% of the developed land to a single drainage area and provide an underground media filter system underneath one of the three pedestrian walkways leading to the habitat park. As proposed, the treated runoff will be discharged to the sanitary sewer during dry weather and to the Isolated Pocket Wetland during wet weather. The modifications will reduce the runoff to Huntington Harbor by 75% and all the remaining runoff that flows to the harbor from developed streets will be treated, thus reducing potential impacts to a water body that is listed by the state as impaired for copper, nickel, Dieldrin, PCBs and pathogens. Catch basin media filters will treat the remaining runoff to Huntington Harbor. Moreover, all developed areas of the project will have standard structural and non-structural best management practices (BMPs) as indicated in the Brightwater Water Quality Management Plan dated January 21, 2005.

The Water Quality staff of the Coastal Commission reviewed and evaluated the WQMP to determine whether it met its stated goals and whether it was in conformity with the marine resources protection policies of the Coastal Act. The Water Quality Unit concluded that the WQMP could significantly reduce the discharge of polluted runoff from the development, if certain necessary and feasible modifications were made to the overall treatment program being proposed. However, as proposed in the January 21, 2005 version of the WQMP, there were several inconsistencies with Sections 30230 and 30231 of the Coastal Act.

These inconsistencies can be overcome by incorporating the following findings and recommended conditions in the coastal development permit.

#### **Suggested permit language**

##### **1. Erosion Control Plan**

The applicant has submitted a draft Storm Water Pollution Prevention Plan (SWPPP) dated January 21, 2003. This document provides conceptual plans for erosion, sedimentation and polluted runoff control during the construction phase of this project as it was described at that time. The draft SWPPP was developed to assist the applicant in responding to the California State Water Resources Control Board (SWRCB) Order No. 99-08 DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (Construction Storm Water Permit). While submittal of SWPPPs to the SWRCB is required by the Construction Storm Water Permit, and while construction projects are required to have a SWPPP on site, the SWPPP may or may not be reviewed by the Regional Water Quality Control Board staff. In addition, the Construction Storm Water Permit only requires that the SWPPP be complete prior to the start of construction.

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In order to adequately review project efforts to control erosion, sedimentation and polluted runoff during the construction phase, the Coastal Commission requires submittal of a plan (Erosion Control Plan) prior to the issuance of the Coastal Development Permit that describes all construction phase BMPs required to conform to the mandates of California Coastal Act Sections 30230 and 30231. In order to minimize duplication of effort, this plan should incorporate the most recent version of the SWPPP, as well as any additional BMPs required to address site-specific coastal resources. This Erosion Control Plan must also be approved by the local jurisdiction as being in compliance with the local stormwater requirements. **In order to ensure that construction phase BMPs conform to the mandates of California Coastal Act Sections 30230 and 30231, the developer should be required to submit an Erosion Control Plan, that addresses site specific BMPs, incorporates the most recent version of the SWPPP and has been approved by the County of Orange prior to issuance of the Coastal Development Permit.**

## 2. Water Quality Management Plan

Structural BMPs proposed by the project developer in the January 21, 2005 version of the WQMP include: an underground media filter system sized to treat the 85th percentile storm event for 92% of the developed area of the project; dry weather diversion of treated water to the sanitary sewer system; catch basin media filters on the remaining portion of the site draining to Huntington Harbor; efficient irrigation for common areas; runoff minimizing landscape design for common area; energy dissipating riprap at new stormdrain outlets and inlet trash racks. The non-structural BMPs include: education for property owners, tenants and occupants; activity restrictions (e.g., no auto repairs or oil changing on site, no discharge of landscaping debris to storm drains, no clean up from painting in paved areas, no washwater from construction activities into stormdrains); common area landscaping maintenance; BMP maintenance requirements; common area litter control; catch basin inspections; and requirements for regular street sweeping.

The WQMP proposes to treat project runoff draining to Huntington Harbor using catch basin media filters. Catch basin media filters are proposed because this area is constrained by steep slopes, limited area and does not drain towards the underground media filter system. The WQMP indicates that the catch basin media filters will be designed to treat the runoff for suspended solids, oil and grease, and heavy metals, but does not specify the capacity of the BMP. The Coastal Commission has found that flow-through BMPs should be sized to treat the 85th percentile 1-hour storm event with a safety margin of 2 or greater in order to maintain marine resources and to avoid diminishing biological productivity or water quality to a level that would reduce populations of marine organisms below optimum levels or endanger human health. **In order to ensure that catch basin media filter BMPs conform to the mandates of California Coastal Act Sections 30230 and 30231, the permit should require that the developer meet the sizing criteria above and that the developer shall use a filter media that meets performance expectations in removing the pollutants named above.**

Various individuals, organizations and agencies expressed concerns over the Brightwater WQMP as proposed in October 2004. Those concerns are addressed either here or in answer to the letter from the Orange County Coastkeeper below. The concerns include:

- potential adverse impacts to the Isolated Pocket Lowland wetlands due to the volume of the project freshwater flows;

## COASTAL COMMISSION

- that the WQMP does not provide information on total loading or potential adverse cumulative impact caused by use of pesticides, fertilizers and other chemicals by individual homeowners and the impacts of animal waste; and
- that low flows should be diverted to the OC Sanitation District treatment plant.

Concern has been expressed about potential impacts of stormwater runoff may have in reducing halophytic plants and encouraging brackish or fresh water plants in the adjacent State-owned Isolated Pocket Lowlands, especially given the extensive 1,100-acre Bolsa Chica Wetlands Restoration Project (Restoration Project). When the applicant sold the Isolated Pocket Lowlands area to the State the applicant retained a drainage easement to accommodate the flows from the proposed development. However, the discharge must be done in a way that does not adversely impact water quality or the biological productivity of the wetlands. During review of the Vegetated Treatment System (incorporated in the previous WQMP) staff discussed these concerns with personnel from the Bolsa Chica Steering Committee who commented that they were aware of the Brightwater project and did not object to the proposed discharge to the Isolated Pocket Wetland area. Further, the Steering Committee felt that the low freshwater volumes into what will be muted tidal habitats would create very localized, but beneficial, biological diversity and are not likely to contribute contamination. The Steering Committee is aware of the modifications to the January 21, 2005 version of the WQMP and has no objections to the current plan. The plan was reviewed and approved by the landowner, the California State Lands Commission.

Concerns about potential adverse cumulative impact caused by use of pesticides, fertilizers and other chemicals by individual homeowners and the potential effects of animal wastes are valid and these pollutants are a potential problem throughout our coastal communities. In response to these concerns, the WQMP includes both non-structural and structural BMPs such as education for property owners, tenants and occupants; common area landscaping maintenance; common area efficient irrigation to minimize runoff; common area litter control; catch basin inspections; media filtration; low flow diversion and requirements for regular street sweeping to deal with these issues. The homeowner education BMP is intended to make individuals aware that misuse of water and household chemicals can have harmful impacts on the nearby wetlands, harbor and ocean. The underground media filtration system in combination with the other BMPs are an effective system for minimizing the impacts of irrigation runoff, pesticides, fertilizer and pet wastes, especially in combination with source control of these pollutants through best management practices in the common areas and private areas of the development. In addition, if the proposed low flow diversion to the sanitary sewer is implemented, many of these pollutants will be further reduced through the wastewater treatment process. In sum, in reliance on the professional judgment of the Commission's Water Quality Unit, the Commission concludes that the total additional loading of pesticides, fertilizers and other chemicals and the impacts of animal waste will not have a significant adverse impact on marine resources, coastal water quality, or biological productivity.

The current project does propose to divert dry weather flows to the sanitary sewer. While such diversion has occurred for several major residential developments in Southern California over the past few years, it has not been generally required by the water quality agencies or by the Commission for several reasons. In some cases, diversion can be a quick fix to beach water quality problems, but it is an end-of-pipe solution that tends to de-emphasize the responsibility of upstream landowners to control sources of pollution and maintain site hydrology near natural conditions. In addition, diversion of first flush runoff to a sewage treatment plant would require the governing board for the plant to find that there is adequate capacity to treat the additional water. As sewage treatment plants approach their design capacity, governing boards can be expected to refuse to treat urban runoff if that would reduce their capacity to treat residential

sewage. Moreover, although sanitary sewer diversion can be effective, there is no evidence at this time that it should substitute for a comprehensive system of best management practices implemented throughout a project in order to meet the requirements of Coastal Act Sections 30230 and 30231.

A letter, dated March 8, 2005, from the Orange County Coastkeeper, raised concerns about the water quality plan provisions of the current project including:

- that the underground media filtration system should include additional storage to detain and treat greater volumes of water than the runoff of the 85th percentile storm event;
- that the developer should use the latest technologies available for the catch basin media filters;
- that the developer should agree to install smart sprinkler controllers on single family houses;
- that the WQMP should include a monitoring plan to evaluate the water quality system effectiveness and determine if it complies with numeric effluent discharge standards;
- that the monitoring plan should measure the results in the pipe and not in the receiving waters; and
- that the responsibility for maintenance of BMPs and education of homeowners be included in the property Conditions, Covenants and Restrictions (CC&Rs) or other governance structure to ensure that the water quality protections are adequately addressed many years into the future.

The Orange County Coastkeeper (Coastkeeper) is concerned that the underground media filter system BMP will bypass storms larger than the 85th percentile design storm and recommends that the project include additional storage capacity for stormwater. Although treating more stormwater or detaining stormwater for longer periods may have some water quality benefits, the Coastal Commission, Regional Water Board and other authorities have determined that the 85th percentile storm event is the point where the cost of additional treatment outweighs the benefits. Moreover, there is no evidence that, by limiting the size of the underground media filter system to the 85th percentile design storm, the project will result in an increase in pollution that will degrade marine resources, which is the standard for Coastal Act purposes, or otherwise violate the requirements of Sections 30230 and 30231. In fact, the evidence presented indicates just the opposite – that the proposed system will satisfy the requirements of those sections by maintaining marine resources and will not diminish biological productivity or water quality to a level that would reduce populations of marine organisms below optimum levels or endanger human health.

The Coastkeeper is also concerned that the catch basin media filter treatment technology to be used on the drainage to Huntington Harbor is not adequate. They indicated in their letter and a phone conversation that a previous version of the WQMP specified an outdated technology. As noted above, in order to ensure that catch basin media filter BMPs conform to the mandates of California Coastal Act Sections 30230 and 30231, the permit should require that the developer meet the sizing criteria above and that the developer shall use a filter media that meets performance expectations in removing the pollutants named above. **In addition the permit should specify that the final design of the catch basin media filter BMP selected by the developer be submitted to the Executive Officer for review, prior to permit issuance.**



The Coastkeeper recommended that the developer install "smart sprinkler controllers" on the individual lots of the development. These "smart sprinkler controllers" adjust the amount of irrigation based on sensors that measure current weather and soil conditions. The applicant is proposing "efficient irrigation" in common areas of the development (but not on individual lots) to avoid excess runoff and diversion of dry weather nuisance flows to the sanitary sewer. Efficient irrigation is described in the WQMP as including, at a minimum: water sensors; properly adjusted irrigation heads; irrigation timing and cycle lengths adjusted to water demands; and grouping plants with similar water requirements. The WQMP indicates that the irrigation system will be designed and operated based on the requirements of the California Model Water Efficient Landscape Ordinance (June 15, 1992).

Addition of a requirement for smart sensors and the other aspects of efficient irrigation on individual lots would minimize dry weather flow from both common and private portions of the development and minimize freshwater discharge to the Isolated Pocket Wetland during the dry season. This would create the treatment system discharge conditions that had been planned during the design of the previously proposed Vegetated Treatment System (i.e., no freshwater flow to the Isolated Pocket Wetland during the dry season). In order to eliminate dry weather flow the current WQMP proposes to divert any dry weather runoff to the sanitary sewer.

Even though the applicant does plan to divert the dry weather runoff to the sanitary sewer, efficient irrigation on private lots would still serve a valuable purpose since it would reduce the volume of diverted flows and reduce the time that irrigation systems would operate during or after rain events. And the efficient irrigation would add redundancy to the water quality protection system in case the sanitary sewer district is not able to accept the diverted runoff. While efficient irrigation systems or smart sprinkler controllers are more expensive than standard systems, the costs can be reduced by installing the systems during initial landscaping and by sharing the costs of sensor installations.

While the inclusion of smart sprinkler controllers on private lots would be an improvement to the overall water quality program, it does not appear to be required for the project to conform to the mandates of California Coastal Act Sections 30230 and 30231, as long as the dry weather runoff is diverted to the sanitary sewer. In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, the permit should require that the developer divert dry weather runoff to the sanitary sewer or minimize dry weather runoff to the extent practicable by extending the efficient irrigation system and smart sprinkler controllers to individual lots.

Concerns about the need for a monitoring program or a quantitative estimate of the total loading of pollutants to the waters downstream are related in that they presume that the quality of runoff is regulated by quantitative regulatory standards, such as a waste load allocation. In fact, at this time, the control of polluted runoff nationwide and in California is primarily regulated by requiring dischargers to use nonstructural and structural Best Management Practices (BMPs) to reduce the discharge of pollutants to the maximum extent practicable. Few municipal stormwater permits contain numeric effluent standards or require site-specific monitoring. Thus, the Regional Water Boards have not developed generally applicable, quantitative standards for nonpoint source pollution that could be applied or enforced by other agencies, including the Commission.

The strategy of requiring structural and nonstructural BMPs is a significant step towards dealing with polluted runoff; a water quality problem that is widespread, caused by the actions of many people and where responsibility cannot be readily assigned to specific parties. A large variety of

BMPs have been approved by federal and state agencies for their ability to reduce the pollutants that are found in polluted runoff. The suite of BMPs considered appropriate for California are found in the California Stormwater Quality Association (CASQA) BMP handbook. While the Coastal Commission has, on occasion, required monitoring of discharge from specific developments, this has been in response to the proposed use of management practices that are not designed to the specifications in the CASQA BMP handbook due to site-specific conditions or innovative methods in need of additional information to document effectiveness.

In addition, the WQMP does indicate that there will be a performance-monitoring program allowing Coastal Commission staff, as well as Regional Water Board staff, to evaluate the effectiveness of the filter media and recommend any needed improvements. The monitoring program will test the water quality entering and leaving the new media filter system for three storms per year over a three-year period. If the Regional Water Board finds that the discharges from this development may be causing receiving waters to fail state standards, that agency can require additional monitoring at any time and, based on the information collected, take further actions to address the problem.

A specific concern of the Coastkeeper is that the water quality samples taken at the outlet of the underground media filter system be taken "in the pipe" and before the discharge mixes with receiving waters. This will allow for a better evaluation of the effectiveness of the BMP, since the sample will not be diluted or mixed with untreated water. While this sample location was not specified in the WQMP, the water quality consultant for the developer, provided additional information in a February 11, 2005 email on monitoring locations, analytes, analytical methods, filter media, and BMP maintenance responsibilities, that has not yet been included in the WQMP. The consultant indicates that monitoring downstream of the underground media filter system will be "at the proposed storm drain outlet", which seems to indicate that it is prior to mixing in receiving waters. **In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, the permit should require the developer to provide a detailed water quality monitoring plan designed to evaluate the effectiveness of the project structural BMPs (both the underground and catch basin media filters) and it should include a monitoring point at the outlet of the BMPs and prior to mixing with other runoff or receiving waters.**

The Coastkeeper recommends that the responsibility for the long-term management, operation and maintenance of the WQMP (including structural BMPs and non-structural BMPs, such as education of homeowners) be included in the property Conditions, Covenants and Restrictions (CC&Rs) or other governance structure. Their concern is that BMP maintenance and water quality education are "beyond the working knowledge and expertise of a typical Homeowners Association (HOA) Board of Directors". In addition, without a formal commitment, other competing needs (e.g. maintenance of common areas) may cause a reduction in coastal water protection over time.

The water quality consultant for the project has indicated that the underground media filter system will be constructed by Stormwater Management Inc. and that "The HOA will have financial responsibility for maintenance of the media filters, but it is unlikely that they would be doing the physical maintenance. They indicate that the HOA would probably be contracting the work out, and with the proprietary nature of the media filter, Storm Water Management, Inc. would be the only one capable of performing the work."

While it is reassuring that the maintenance of the primary structural BMPs will be conducted by knowledgeable professionals, evidence that the WQMP will be fully implemented over the life of the project is needed. CCC water quality staff agrees that the additional safeguard of a long-

term governance structure is necessary for long-term water quality protection and that that a description of this structure needs to be included in the WQMP. Evidence of the governance structure needs to be presented to the Executive Officer for his approval prior to permit issuance. **In order to ensure that the project conforms to the mandates of California Coastal Act Sections 30230 and 30231, the permit should require that prior to issuance of the permit the developer shall provide evidence of a governance structure that ensures the full implementation of the WQMP for the life of the project, including proper management, operation, and maintenance of the structural BMPs and ongoing education of homeowners.**

In conclusion, Commission Water Quality Unit staff has reviewed the WQMP dated January 21, 2005 and supporting documents as listed above. Based on those documents, the Water Quality staff of the Coastal Commission concludes that if the permit is conditioned to require additional assurances that the catch basin media filter BMPs to be used are properly sized and designed for the expected pollutants of concern; that the monitoring plan is adequately implemented to evaluate BMP effectiveness; that the dry weather flow is diverted or the dry weather runoff is minimized by adding efficient irrigation on individual lots; that BMP maintenance is performed by trained professionals; and that implementation of the WQMP including BMP maintenance is mandated in the project CC&Rs for the life of the project, then the water quality aspects of this project would appear to be consistent with Sections 30230 and 30231 of the Coastal Act.

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## CONDITIONS OF APPROVAL

### Basic

1. CP CP NA BASIC/ZONING REG  
This approval constitutes approval of the proposed project only to the extent that the project complies with the Orange County Zoning Code and any other applicable zoning regulations. Approval does not include any action or finding as to compliance of approval of the project regarding any other applicable ordinance, regulation or requirement.
2. CP CP NA BASIC/TIME LIMIT  
This approval is valid for a period of 36 months from the date of final determination. If the use approved by this action is not established within such period of time, this approval shall be terminated and shall thereafter be null and void.
3. CP CP NA BASIC/PRECISE PLAN  
Except as otherwise provided herein, this permit is approved as a precise plan. If the applicant proposes changes regarding the location or alteration of any use or structure, the applicant shall submit a changed plan to the Director, PDSD, for approval. If the Director, PDSD, determines that the proposed change complies with the provisions and the spirit and intent of the approval action, and that the action would have been the same for the changed plan as for the approved plot plan, he may approve the changed plan without requiring a new public hearing.
4. CP CP NA BASIC/COMPLIANCE  
Failure to abide by and faithfully comply with any and all conditions attached to this approving action shall constitute grounds for the revocation of said action by the Orange County Planning Commission.
5. CP CP NA BASIC/APPEAL EXACTIONS  
Pursuant to Government Code Section 66020, the applicant is hereby informed that the 90-day approval period in which the applicant may protest the fees, dedications, reservations or other exactions imposed on this project through the conditions of approval has begun.
6. CP CP NA BASIC/OBLIGATIONS  
Applicant shall defend at his/her sole expense any action brought against the County because of issuance of this permit. Applicant shall reimburse the County for any court costs and attorneys fees that the County may be required to pay as a result of such action. The County may, at its sole discretion, participate in the defense of any action, but such participation shall not relieve applicant of his/her obligations under this condition.

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7. CP CP R/G COASTAL DEVELOPMENT PERMIT REQUIRED  
Prior to the issuance of any grading permit, or recordation of a final map that creates residential lots, whichever comes first, the applicant shall provide evidence to the Director, Planning and Development Services Department that a Coastal Development Permit for the Brightwater project has been obtained from the California Coastal Commission.
8. CP CP NA MITIGATION MONITORING PROGRAM  
In addition to the Conditions of Approval contained in this resolution, the applicant is also responsible for adherence to the Mitigation Measures, Project Design Features and Standard Conditions contained in the Mitigation Monitoring and Reporting Program of Subsequent Environmental Impact Report 551.

### SPECIAL CONDITIONS

#### Annual Monitoring Report

9. An Annual Monitoring Report (AMR) shall be prepared and submitted by the landowner/master developer each calendar year to the County Executive Office and the Orange County Planning and Development Services Department. Submittal of an AMR is required for conformance with the Growth Management Program of the Land Use Element of the Orange County General Plan and the County's Annual Development Monitoring Program.

The Board of Supervisors, in the annual adoption of the Development Monitoring Program, may identify a significant imbalance between development projections and planned infrastructure. The Board of Supervisors may then defer subdivision approval within the planned community until measures capable of resolving the imbalances are proposed to, and approved by, the Board of Supervisors. The AMR will be the project proponent's opportunity to demonstrate mitigation measures and implementation strategies, which will ensure adequate infrastructure for the community.

10. Prior to submission of a petition or a resolution of application for annexation of the subject property to a city, or prior to consent by the landowner to annexation by a city, the landowner shall obtain the approval from Director, PDSD of a revised Fiscal Impact Report to assess the cost-revenue impact of such annexation on the County and the special districts serving the property to be annexed with adequate provision made to mitigate any negative impact to the General Fund that has occurred during buildout of the project.
11. Prior to the recordation of any final tract map (except for financing purposes), CCRs or other methods, including the establishment of a property owners association or other entity which will guarantee the provision at no cost to the County of any extended services and any private services required, shall be submitted to and approved by the Director, PDSD and County Counsel, and shall then be recorded prior to the issuance of any certificates of use and occupancy.

**Buyer Notification**

12. Prior to the issuance of any building permits for residential construction, the developer shall prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, Current Planning Services. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines listed in Board of Supervisors Resolutions 01-329 and 82-1368 and available at the Development Processing Center.

**Grading/Geology/Soils**

13. Prior to the issuance of any grading permit, the developer shall submit a soils engineering and geologic study to the Manager, Subdivision and Grading Services, for approval. The report shall include the information and be in a form as required by the Orange County Grading Manual. At the discretion of the Manager, Subdivision and Grading Services the report may require review by the Grading Technical Advisory Board (appointed by the Board of Supervisors). This report shall include assessment of potential soil-related constraints and hazards such as slope instability, settlement, seismic shaking, liquefaction, landslides, compressible materials, rippability related secondary seismic impacts or any other areas of inquiry determined to be appropriate by the Manager, Subdivision and Grading Services. The report also shall include evaluation of potentially expansive soil, recommended construction procedures, and shall evaluate design criteria for a sewage and utility lines proximate to or crossing over identified fault lines. The report shall demonstrate compliance with the applicable provisions of the Alquist-Priolo Act and shall denote precise boundaries for Alquist-Priolo Special Studies Zone for the exclusion of habitable structures.

14. **SG SG G GRADING DEVIATION**

Prior to the issuance of any grading permits, if the applicant submits a grading plan which the Manager, Subdivision and Grading, determines to show a significant deviation from the grading shown on the approved tentative map and site plans, specifically with regard to slope heights, slope ratios, pad elevations or pad configuration, the Subdivision Committee shall review the plan for a finding of substantial conformance. If the Subdivision Committee fails to make such a finding, the applicant shall process a revised tentative map; or, if a final map has been recorded, the applicant shall process a new tentative map or a site development permit application per Orange County Zoning Code Sections 7-9-139 and 7-9-150. Additionally, the applicant shall process a new environmental assessment for determination by the decision-making entity.

15. **CP CP G GRADING CONSISTENCY**

Prior to the issuance of any grading permit or revisions thereto, the Manager, Current Planning, shall determine that the proposed grading is consistent with the grading depicted within this approved planning application.

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16. Prior to the issuance of building permits or the recordation of an associated final tract map, whichever comes first, project applicant shall be required to pay development fees for any facilities for which an applicable fee program has been adopted by the Board of Supervisors as provided in Sections 7-9-700 through 7-9-713 and 7-9-316 of the Codified Ordinances of the County of Orange. This condition may be satisfied by entering into an implementation agreement with the County in a manner meeting the approval of the County Executive Officer.

#### Hazardous Material

17. Prior to the issuance of any grading permit, an applicable Sampling and Analysis Plan (SAP) shall be provided by the applicant subject to the approval of the Manager, Environmental Resources for evaluation of potential contamination at the site.

The Sampling and Analysis Plan shall:

- a. identify all those physical, chemical and/or electronic means of searching for contamination;
  - b. identify all those physical and chemical means of testing individual soil samples for hazardous waste or materials present in the soil arising from past land uses;
  - c. identify the methodology by which soil samples representative of an area of potential contamination were selected;
  - d. provide that all soil contaminated by past oil field operations or by waste dumping that meet hazardous materials criteria shall be stored, manifested, transported and disposed of or treated in accordance with the California Code of Regulations Title 22 and in a manner satisfactory to the Manager, HCA/Hazardous Materials Program. Storage, transportation and disposal records shall be kept on-site and shall be open for inspection to any government agency upon request.
  - e. a Remedial Action Plan will be prepared if contamination is found above regulatory thresholds during implementation of the SAP.
18. All on-site generated waste that meets hazardous waste criteria shall be stored, manifested, transported and disposed of in accordance with California Code of Regulations Title 22 and in a manner to the satisfaction of the Manager, HCA/Hazardous Materials Program Division. Storage, transportation and disposal records shall be kept on site and open for inspection to any government agency upon request.
19. Prior to issuance of any grading permit, a Grading Mitigation Plan will be provided by the applicant to the Manager of PDSD, Subdivision and Grading Services, County of Orange. The Grading Mitigation Plan will include the locations of all on-site abandoned oil wells and pipelines. The Grading Mitigation Plan will include a plan for remediation if contaminated soil is encountered during the grading or site development activities. The Grading Mitigation Plan will also provide details of the steps to be taken if unexpected



conditions are encountered during grading or site development, such as additional pipelines or abandoned wells.

20. Prior to the issuance of a building permit for residential units adjacent to an abandoned oil well site, the applicant shall provide evidence to the Manager, Subdivision and Grading Services that all proposed residential units are set back at least ten (10) feet from abandoned oil wells and twenty (20) feet from any underground pressurized gas line, as required by the Orange County Fire Authority, and that said abandoned wells comply with State Division of Oil, Gas and Geothermal Resources (DOGGR) and Orange County Fire Authority (OCFA) standards for well abandonment.
21. **SG SG/ER R HAZARDOUS MATERIAL**  
Prior to the recordation of a subdivision map, the subdivider shall submit, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication or dedicated to the County of Orange or the Orange County Flood Control District, for review and approval by the Manager, Subdivision and Grading, in consultation with the Manager, PFRD/Environmental Resources.
22. **F F G COMBUSTIBLE GAS MITIGATION**  
**Service Code: 1.39 (Hazardous Materials Review)**  
Prior to the issuance of any grading permit, the applicant shall submit and obtain the approval of the Fire Chief for a combustible gas/methane assessment and mitigation plan. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guideline for Combustible Soil Gas Hazard Mitigation."

#### Surface and Groundwater Hydrology

23. Prior to the issuance of any building permits or the recordation of a subdivision map (except maps for financing and conveyance purposes only), whichever comes first, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, Subdivision and Grading, including payment of fees and the construction of the necessary facilities.
24. Prior to issuance of any well permit from Orange County Water District (OCWD), or Orange County Health Care Agency (OCHCA), if necessary, the project applicant shall prepare a work plan for well installation and operations which includes well construction details and pumping schedules in a manner meeting the approval of the State Regional Water Quality Control Board (RWQCB), the OCWD and OCHCA.

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25. Prior to the recordation of a final tract/parcel map or prior to the issuance of any grading permits, whichever comes first, the following drainage studies shall be submitted to and approved by the Manager, Subdivision and Grading Services:

- A drainage study of the subdivision, including diversions, off-site areas that drain onto and/or through the subdivision, and justification of any diversions; and
- When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and
- Detailed drainage studies indicating how the tract map grading, in conjunction with the drainage conveyance systems, including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.

26. Prior to the issuance of any grading permit, the applicant shall submit for approval by Manager, Subdivision and Grading Services an erosion control plan which shall include, but not be limited to:

- The name and 24-hour telephone number of the person responsible for performing emergency erosion control work.
- The signature of the civil engineer or other qualified individual who prepared the grading plan and who is responsible for inspection and monitoring of the erosion control work.
- All desilting and erosion protection facilities necessary to protect adjacent property from sediment deposition.
- The streets and drainage devices that will be completed and paved by October 15 of each year.
- The placement of sandbags or gravelbags, slope planting or other measures to control erosion from all slopes above and adjacent to roads open to the public. Use of gravelbags is encouraged over sandbags.
- The plan shall indicate how access will be provided to maintain desilting facilities during wet weather.

27. **SG SG RG CROSS LOT DRAINAGE**

Prior to the recordation of a subdivision map or prior to the issuance of any grading permit, whichever comes first, and if determined necessary by the Manager, Subdivision and Grading, the applicant shall record a letter of consent from the affected property owners permitting off-site grading, cross lot drainage, drainage diversions and/or unnatural concentrations. The applicant shall obtain approval of the form of the letter of

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consent from the Manager, Subdivision and Grading Services before recordation of the letter.

### Water Quality

28. Prior to the issuance of any grading permit, the project applicant shall obtain a State General Construction Activity Stormwater Permit from the State Water Resources Board and provide evidence to this effect to the Manager, Subdivision and Grading Services. As part of this permit, the applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP), which shall establish Best Management Practices (BMPs) for: proper storage, handling, use, and disposal of fuels and other toxic materials; establishing fuel and maintenance areas away from drainage ways; and erosion, sediment and construction site chemical controls, including those measures recommended by PFRD document "Evidence Specifying Management Measures for Services of Non-point Pollution in Coastal Waters" (1993).
  
29. **SG SG RGB POLLUTANT RUNOFF**  
 Prior to the recordation of a subdivision map, or issuance of precise grading permits or building permits, whichever comes first, the applicant shall submit and obtain approval from the Manager, Subdivision and Grading, of a Water Quality Management Plan (WQMP) or Standard Urban Stormwater Mitigation Plan (SUSMP), as deemed appropriate by the Manager, Subdivision and Grading, specifically identifying Best Management Practices (BMPs) that will be used on-site or off-site to control predictable pollutant runoff for each site-specific development. This WQMP or SUSMP shall identify, at a minimum, the routine structural and non-structural measures specified in the Countywide NPDES Permit as it now exists, and any subsequent amendment finally adopted by the Regional Quality Control Board having jurisdiction, that may be legally applied to the project. The WQMP or SUSMP shall detail implementation of BMPs whenever they are applicable to a project and specify the long term maintenance responsibilities (identifying the developer, parcel owner, maintenance association, lessee, etc.), and shall reference the location(s) of structural BMPs. At a minimum, the WQMP shall include the BMPs specified in the County Drainage Area Management Plan (DAMP) Appendix G, including but not limited to, Filtration (S1), Energy Dissipaters (S12), Inlet Trash Racks (S15), and any "special" BMPs or Project Design Features, included in the approved RMP or related environmental or other planning documents. The above requirements shall be met to the satisfaction of the Manager, Subdivision and Grading. The project applicant shall also ensure that water samples at the inlet and outlet of constructed wetlands will be collected for three storm events each year, for three years at a minimum, with toxicity test results from these samples detailed in the WQMP.
  
30. **SG -SG G NPDES PERMIT**  
 Prior to the issuance of any grading permits, the applicant shall submit evidence to the Manager, Subdivision and Grading, that the applicant has obtained coverage under the NPDES statewide General Construction Activity Stormwater Permit from the State Water Resources Control Board.

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31. **SG SG/PD GR RUNOFF MANAGEMENT & WATER QUALITY PLAN**  
Prior to the recordation of the first final map (either for conveyance or development), or prior to the issuance of any rough or precise grading permit (except for any publicly financed infrastructure), whichever occurs first, the land owner/applicant shall prepare, and receive approval from the Manager, Subdivision and Grading Services Division, in consultation with the Environmental Resources and Flood Program Sections of the PFRD Program Development Division (PDD) of, a Runoff Management Plan (RMP), including a Water Quality Management Plan (WQMP), covering the subject property. The RMP shall include the locations of all permanent large-scale Best Management Practices (BMPs), including filtration devices, such as constructed wetlands, water quality basins, detention basins, debris basins, grass/bioswales, energy dissipaters, catch basin inserts, and other BMPs.
32. **SG SG/PD GR MASTER INFRASTRUCTURE IMPROVEMENTS**  
Prior to the recordation of the first final map (either for conveyance or development), or prior to the issuance of any rough or precise grading permit, whichever occurs first, the land owner shall design and construct all applicable master infrastructure improvements identified in the approved RMP, including debris basins, bioswales, energy dissipaters, drainage pipes, and other improvements, and shall provide all necessary dedications, all in a manner meeting the approval of the Manager, Subdivision & Grading Services Division.
33. **SG SG R FINAL MAP NOTE FOR RETENTION BASINS/ WETLANDS**  
Prior to the recordation of each final map (either for conveyance or development), a note shall be placed on the applicable final map where appropriate, indicating that retention basins and/or constructed wetlands will be required on the property in accordance with the approved RMP, in a manner meeting the satisfaction of the Manager, Subdivision and Grading Services Division.
34. **CP/EP CP R/G LONG TERM MAINTENANCE OF BMP'S**  
Prior to the issuance of any grading permit, or recordation of a final map that creates residential lots, whichever comes first, the applicant shall provide to the Director, Planning and Development Services Department evidence that structural BMPs identified in the water quality management plan (WQMP) will be operated and maintained in perpetuity by an entity acceptable to the County. The applicant shall demonstrate to the county's satisfaction that the structural BMPs will be maintained in the manner specified in the WQMP and the entity responsible for performing the maintenance has the financial resources to ensure the long-term operation and maintenance of the BMPs consistent with the WQMP, and would have the ability to take any corrective or remedial actions necessary to ensure proper operation of the BMPs. The entity could be the homeowners association, Southern California Water Company, a public agency/district, or other organization deemed acceptable to the County.

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## Biological Resources

35. Prior to issuance of grading permits, the permit applicant shall demonstrate to the Manager of PSD, Environmental Services, that it has established a trust fund in an amount to be determined in consultation with CDFG, to assist in the ongoing management of raptor predation upon nesting sensitive target species or other sensitive species after the implementation of residential development on the Bolsa Chica Mesa. This fund will be available to CDFG and USFWS if it can be demonstrated by CDFG and USFWS, to the satisfaction of the County Environmental Planning Services, that the residential development results in an increase in raptor predation. If no such effect is demonstrated within five years of completion of project construction, the trust fund shall revert to the Applicant.
36. Prior to the issuance of any grading permit, the project applicant shall ensure to the satisfaction of the Manager, Subdivision and Grading in consultation with the Manager, Environmental Services Division that a biologist is retained to monitor construction grading activity. The biologist shall, at a minimum, oversee the following:
- a. Monitor grading activities, conduct pre-construction meetings with contractors, provide on-site assistance to construction personnel and stake out perimeters of existing habitats to be preserved.
  - b. Within 30 days of the beginning of grading activity, conduct a survey and, if warranted, develop a mitigation program in accordance with the California Burrowing Owl Consortium. If the survey results indicate that an active burrow is present, the owls shall be passively relocated according to the consortium guidelines. Occupied burrows shall not be disturbed during the nesting season, from February 1 through August 31, unless CDFG verifies that the birds have not begun egg-laying and incubation or that the juveniles from those burrows are foraging independently and capable of independent survival at an earlier date. Alternative burrows shall be enhanced or created in permanently preserved open space, at a ratio of 1:1. A report indicating completion of the surveys and any necessary mitigation shall be provided to the Manager, Environmental Services Division, for approval.
  - c. Within 30 days of the beginning of grading activity, develop a Southern Tarplant Replacement Program for review and approval by the Manager, Environmental Services Division. The Manager, Environmental Services Division, shall submit the replacement program to the California Department of Fish and Game for review and comment prior to approval of the replacement program.

Tar Plant

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37. Prior to the issuance of any residential building permit, the applicant shall provide a management plan to specify how public visitation of the natural areas will be controlled or managed to the approval of Manager, HBP Program Management and Coordination. The plan shall include, at minimum:
- methods for public education on sensitive habitats and plants, and
  - any existing access restriction on the existing Ecological Reserve trails may remain in effect. New trails shall not limit access opportunities.
38. A management plan shall be developed by the permit applicant and submitted to the Manager of PDSD, Environmental Services, that specifies how natural areas will be protected from residential landscaping. The plan shall be approved by the County Environmental Planning Services prior to issuance of building permits and shall include, at a minimum:
- (a) Methods for public education, including information regarding invasive exotics that homeowners may not plant in their yards.
  - (b) A landscape plan for common areas that avoids the use of invasive exotic species.
  - (c) A list of invasive exotic species that will not be permitted in residential landscaping (Lists A and B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October, 1999").
  - (d) A list of palms with persistent leaf bases that will not be permitted in residential landscaping.
  - (e) An erosion control and storm runoff plan that shall be prepared prior to construction; if straw bales are used for erosion control, rice straw or equivalent weed free straw shall be used to prevent additional introduction of exotic species into native habitat.

#### Transportation and Circulation

39. SG SG G SIGHT DISTANCE

Prior to the issuance of any grading permits, the applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, Subdivision and Grading. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Subdivision and Grading Services.

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40. Prior to the issuance of any grading permit, the project applicant shall submit a Construction Traffic Control Plan prepared by a registered engineer to the Manager, Subdivision and Grading, for approval. Said plan shall require that all traffic control work for construction shall conform to the latest editions of the California Department of Transportation Manual of Traffic Controls, Standard Plans, Standard Specifications, and Special Provisions.
41. Prior to issuance of the first residential building permit, the applicant shall receive approval from the Director of PDSD, of the project's participation in the project's Area Traffic Improvement Program (ATIP). The applicant shall pay the project's fair share of the transportation improvements identified in SEIR 551 (PDF 6-2, ATIP Fair Share Components) based on a cost estimate for such improvements approved by the Chief, Transportation Planning/PDSD. Said fair share fees shall be paid on a per unit basis prior to or concurrent with the issuance of each residential building permit.
42. Prior to the issuance of any building permit, the applicant shall pay its pro-rate fair share of preparing a Deficiency Plan for Pacific Coast Highway in compliance with the requirements of the Congestion Management Program (CMP) to the satisfaction of the Manager Current Planning in consultation with the Manager, Community and Advance Planning and Chief, Transportation Planning.

#### Air Quality

43. All required actions necessary to comply with SCAQMD Rule 402, which requires that there be no off-site dust impacts sufficient to cause a nuisance, and SCAQMD Rule 403, which restricts visible emissions from construction, shall be implemented as a part of the proposed project. Prior to the approval of a grading permit, the applicant shall demonstrate to the Manager, Subdivision and Grading, that such compliance will be achieved and that all such actions shall be listed on each grading plan under the General Notes Section. Additional dust suppression measures are included in the SCAQMD's CEQA Air Quality Handbook, are also included for implementation.

#### Applicable Rule 403 measures:

- Apply nontoxic chemical soil stabilizers to manufacturers' specifications, to all inactive construction areas (previously graded areas inactive for ten days or more).
- Water active sites at least two times daily. (Locations where grading is to occur will be thoroughly watered prior to earth moving.)
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).

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- Pave construction access roads at least 100 feet onto the site from main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

Additional SCAQMD CEQA Air Quality Handbook Dust Measures:

- Revegetate disturbed areas as quickly as possible.
- All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 mph.
- All streets shall be swept once a day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site each trip.

Implementation of these dust suppression techniques will reduce the fugitive dust generation (and thus the PM<sub>10</sub> component) by 50 to 75 percent. Implementation of the following measures will reduce short-term fugitive dust impacts on nearby sensitive receptors.

44. Prior to issuance of grading permits, the permit applicant shall include the following measures on construction plans, to be monitored and reported by the contractor to the County on a monthly basis, to the satisfaction of the Manager, Subdivision and Grading:
- (a) Where feasible, the General Contractor shall time the construction activities so as not to interfere with peak hour traffic and minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flag person shall be retained to maintain safety adjacent to existing roadways.
  - (b) The General Contractor shall utilize electric or diesel powered equipment in lieu of gasoline powered engines where feasible.
  - (c) The General Contractor shall ensure that construction grading plans include a statement that work crews will shut off equipment when not in use.
  - (d) The Civil engineer shall include a statement on construction grading plans requiring that all construction equipment be tuned and maintained in accordance with the manufacturer's specifications.
45. Prior to issuance of grading permits, the permit applicant shall furnish documentation to the satisfaction of the Manager, Subdivision and Grading, that the following provisions are included on the grading plans:
- (a) During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

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- (b) During construction, water trucks or sprinkler systems shall be used 4 times a day to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning, watering during soil placement, after work is completed for the day, and whenever the wind exceeds 15 mph.
  - (c) After excavation is completed, the entire area of disturbed soil shall be treated immediately with soil bonding agents until the area is landscaped, paved, or otherwise developed so that dust generation will not occur.
  - (d) Soil stockpiled for more than two weeks shall be covered, kept moist, or treated with soil binders to prevent dust generation.
  - (e) Trucks transporting soil, sand, cut or fill materials and/or construction debris to or from the site shall be tarped from the point of origin.
  - (f) Wash mud-covered tires and undercarriages of trucks leaving construction sites.
  - (g) Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud that would otherwise be carried off by trucks departing the project site.
  - (h) If dust is visibly generated that travels beyond the site boundaries, clearing, grading, earth moving, or excavation activities that are generating dust shall cease during periods of high winds (i.e., greater than 25 mph averaged over one hour) or during Stage 1 or Stage 2 episodes.
46. A construction and construction related activity monitor satisfactory to the Manager, Subdivision and Grading, shall be retained by the permit applicant prior to issuance of grading permit. The monitor shall monitor all activity on a daily basis, keep written daily records, and file monthly activity reports with the Manager, Subdivision and Grading, for the duration of grading and infrastructure construction. The monitor shall be employed by the applicant or the applicant's contractor. The monitor shall report on the following strategies:
- (a) Construction equipment exhaust shall be minimized by use of;
    - NO<sub>x</sub> control technologies, such as fuel injection timing retard for diesel engines and air to air after cooling.
    - Low sulfur fuel (where available).
    - Well maintained equipment and proper planning to minimize trips/use.
    - Log fuel use, hours of operation, and periodic maintenance.
  - (b) Fugitive dust shall be controlled as specified in the preceding condition and SCAQMD rules and regulations.

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- (c) Restrict delivery of construction supplies and off-site hauling of debris to non-peak travel periods whenever feasible, except for concrete and earthwork related activities.
47. Prior to the issuance of building permits, the applicant shall demonstrate to the Manager of PDSD, Building Permits, that precoated/natural colored building materials, water based or low VOC coating, and utilization of coating transfer or spray equipment with high transfer efficiency shall be employed to reduce emissions associated with architectural coatings that contain VOCs. Furthermore, the project shall comply with SCAQMD Rule 1113, Architectural Coating, which restricts the amount of VOC allowed in architectural coating to control VOC emission in the Basin.

**Noise****48. BP BP RGB RESIDENTIAL NOISE**

The applicant shall sound attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not exceeded. The applicant shall provide a report prepared by a County-certified acoustical consultant, which demonstrates that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, as follows:

- A. Prior to the recordation of a subdivision map or prior to the issuance of grading permits, as determined by the Manager, Building Permits Services, the applicant shall submit an acoustical analysis report to the Manager, Building Permits Services, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy "B" below.
- B. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, Building Permits Services, for approval along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.
- C. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, Building Permits Services.

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49. **BP BP G CONSTRUCTION NOISE**

A. Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, Building Permit s Services, that:

- (1) All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.
- (2) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).
- (3) Stockpiling and/or vehicle staging areas shall be located a practicable from dwellings.

B. Notations in the above format, appropriately numbered and included on the front sheet of the project's permitted grading plan, considered as adequate evidence of compliance with this condition.

**Light and Glare**

50. Prior to issuance of any building permits within tracts abutting wetlands, environmental sensitive habitats or the residential development setback area, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building Permit Services.

**Cultural Resources**

51. Prior to the issuance of any grading permit, the applicant shall complete, to the approval of Manager, Coastal, and Historical Parks the research design for recovered material analysis for the Brightwater site currently in preparation. The research design shall contain a discussion of important research topics for recovered material analysis that can be addressed employing data from the Brightwater site. The research design shall be reviewed by at least three qualified archaeologists, as required by California Coastal Commission (CCC) guidelines.
52. Prior to issuance of any grading permit, data recovery excavations shall be completed by the applicant meeting the approval of the Manager, Coastal and Historical Parks for important or unique archaeological resources in areas proposed for urban development on the Brightwater site.

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53. Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Chief, Geotech/Grading Plan Check, that a County-certified archaeologist has been retained, shall be present at the pre-grading conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If additional or unexpected archaeological features are discovered, the archaeologist shall report such findings to the project developer and to the Manager, Coastal and Historical Parks. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project developer, for exploration and/or salvage. Prior to the issuance of a precise grading permit, the archaeologist shall submit a follow-up report to the Manager, HBP Program Management and Coordination, which shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. If Native American remains are discovered within the Brightwater site, the project applicant shall comply with the procedures set forth in Section 5097.98 of the California Public Resources Code and shall consult with the most likely descendants designated by the Native American Heritage Commission to obtain recommendations on the treatment and disposition with appropriate dignity of the human remains and associated grave good. The applicant may retain said finds if written assurance is provided that they will be properly preserved in Orange County, unless said finds are of special significance, or a museum in Orange County indicates a desire to study and/or display them at the time, in which case items shall be donated to the County, or designee. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP Program Management and Coordination.
54. Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to complete literature and records searches for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified archaeologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, Coastal and Historical Parks. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, HBP Program Management and Coordination. Mitigation Measures may be required, depending on the recommendations of this report.
55. Prior to the issuance of any grading permit, a County-certified archaeologist shall be retained by the applicant to perform a subsurface test level investigation and surface collection as appropriate. The test level report evaluating the site shall include discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations and cost estimates. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. Applicant may retain said finds if written assurance is provided that they will be properly preserved in Orange County, unless said finds area of special significance, or a museum in Orange County indicates a desire to study and/or display them at the time, in which case items shall be donated to the County, or designee. Final mitigation shall be carried out based upon the report recommendations

and a determination as to the site's disposition by the Manager, Coastal and Historical Parks. Possible determinations include, but are not limited to, preservation, salvage, partial salvage or no mitigation necessary.

56. Prior to issuance of any grading permit, the project applicant shall provide written evidence to the Chief, Geotech/Grading Plan Check, that a County-certified archaeologist has been retained to conduct salvage excavation of the archaeological resources in the permit area. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The applicant may retain said finds if written assurance is provided that they will be properly preserved in Orange County, unless said finds are of special significance, or a museum in Orange County indicates a desire to study and/or display them at the time, in which case items shall be donated to the County, or designee. A final report of the salvage operation shall be submitted to and approved by the Manager, Coastal and Historical Parks, prior to any grading in the archaeological site areas.
57. Prior to the issuance of any building permit, the applicant shall, in a manner meeting the approval of the Manager, Coastal and Historical Parks extend the existing reburial agreement executed between the project applicant and the Juaneno Band of Mission Indians regarding the treatment and disposition of prehistoric Native American human remains discovered at ORA-83 if any additional remains are discovered on the Brightwater site.

#### Paleontological Resources

58. Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Chief, Geotech/Grading Plan Check, that a County-certified paleontologist has been retained by the applicant to complete literature and records searches for recorded sites and previous surveys. In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner which meets the approval of the Manager, Coastal and Historical Parks. A report of the literature and records searches and field survey shall be submitted to and approved by the Manager, HBP Program Management and Coordination. Future mitigation shall depend upon the recommendations in the report.
59. Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Chief, Geotech/Grading Plan Check, that a County-certified paleontologist has been retained by the applicant to conduct pre-grading salvage and prepare a catalogue of the exposed resources. Excavated finds shall be offered to the County of Orange, or designee, on a first refusal basis. The applicant may retain said finds if written assurance is provided that they will be properly preserved in Orange County, unless said finds are of special significance, or a museum in Orange County indicates a desire to study and/or display them at the time, in which case items shall be donated to the County, or designee. The paleontologist shall submit a follow-up report for approval by the Manager, Coastal and Historical Parks, for review and approval, which shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their present repository.

60. Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Chief, Geotech/Grading Plan Check, that a County-certified paleontologist has been retained to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grading conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the project developer, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If major paleontological resources are discovered, which require long-term halting or redirecting of grading, the paleontologist shall report such findings to the project developer and to the Manager, Coastal and Historical Parks. The paleontologist shall determine appropriate actions, in cooperation with the project developer, which ensure proper exploration and/or salvage. Excavated finds shall be offered to the County of Orange, or its designee, on a first-refusal basis. The applicant may retain said finds if written assurance is provided that they will be properly preserved in Orange County, unless said finds are of special significance, or a museum in Orange County indicates a desire to study and/or display them at a time, in which case items shall be donated to the County, or designee. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval by the Manager, Coastal and Historical Parks. Prior to the issuance of a precise grading permit, the paleontologist shall submit a follow-up report for approval by the Manager, Coastal and Historical Parks, which shall include the period of inspection, a catalogue and analysis of the fossils found, and present repository of the fossils. Monthly grading observation reports shall be submitted to the grading inspector on all projects which exceed 100,000 cubic yards, unless no earthwork has been done during the month. These reports shall include the period of inspection, the list of fossils collected, and their present repository.

#### Aesthetics

61. Prior to the issuance of any grading permit, the applicant shall provide evidence to Manager, Subdivision and Grading Services that:
- a. Views of construction activities shall be shielded as feasible by measures that can include placement of temporary fencing, landscaped berms, and/or landscaping.
  - b. All graded slopes shall be completely hydroseeded and/or landscaped within 90 days following completion of grading.

#### Public Services and Utilities

62. Prior to the issuance of any residential building permit, the project applicant shall provide evidence to Manager, Subdivision and Grading Services that water and energy conservation features shall be incorporated into new residential development as per Title 24 of the California Code Regulations.

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63. Prior to recordation of any final tract map (except for financing purposes), the project applicant shall pay the statutory school fee required for the amount of development within the area of the final tract map, or enter into an agreement with the affected school district to provide those measures deemed necessary to address the impact of the project which may include the construction of new schools, the payment of additional fee for the use of temporary facilities in a manner meeting the approval of the Manager, Subdivision and Grading Services.

**Parks/Recreation/Open Space**

64. Prior to the issuance of any grading permit, the applicant shall submit an irrevocable offer of dedication to the County of Orange in a manner meeting the approval of the Manager, HB&P for 49 acres of land within the 106-acre Harriett Wieder Regional Park.
65. Prior to the issuance of residential building permits within a recorded final tract map area, the Local Park Code requirements for the Brightwater Project Area shall be satisfied, for that portion of the project site, through park dedication or other means subject to the approved Local Park Implementation Plan, to the satisfaction of the Manager, PDSD Current Planning in consultation with the HBP Program Management and Coordination.

66. **HP HP R PLANNING AREA 3A-1 (PUBLIC PARK DEDICATION)**

An irrevocable offer of dedication over Planning Area 3A-1 shall be made to the County of Orange for local park purposes, or successors, in compliance with the following conditions:

- A. Prior to the recordation of an applicable subdivision map which creates building sites, and is immediately adjacent to or containing a public park lot, the subdivider shall make an irrevocable offer of dedication in fee to the County of Orange or its designee over lots within Planning Area 3A-1 for local park purposes in a form approved by the Manager, PDSD/Current Planning Services, suitable for recording. Said offer shall be free and clear of money and all other encumbrances, liens, leases, fees, easements (recorded and unrecorded), assessments and unpaid taxes except those meeting the approval of the Manager, PDSD/Current Planning Services.
- B. Prior to the issuance of a certificate of use and occupancy for a residential unit, the subdivider shall construct improvements within Planning Area 3A-1 consistent with the approved site plan.
- C. The developer or his assigns and successors in interest shall maintain offered park land until such time as the County or its successor designee accepts the offer of dedication.

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67. **HP HP R PLANNING AREA 3B (OPEN SPACE FEE DEDICATION):**

The applicant shall irrevocably offer to dedicate lots within Planning Area 3B in-fee to the County of Orange, and/or its successor designee, for open space purposes, with deed restricting use to conservation and wildlife habitat, in compliance with the following conditions:

- A. Prior to the recordation of an applicable subdivision map, the subdivider shall make an irrevocable offer of dedication in fee to the County of Orange, or its designee, over all lots within Planning Area 3B for open space purposes, with deed restricting use to conservation and wildlife habitat, in a form approved by the Manager, PFRD/HBP Program Management & Coordination suitable for recording. Said offer shall be free and clear of money and all other encumbrances, liens, leases, fees, easements (recorded and unrecorded), assessments and unpaid taxes, except those meeting the approval of the Manager, PFRD/HBP Program Management & Coordination. Until such time as the offer is accepted by the County, the subdivider or assigns and successors shall be responsible for maintenance and upkeep of the above referenced lots.
- B. Prior to recordation of any subdivision map, the subdivider shall survey and monument all lots dedicated for open space purposes, and stake the property line of the dedication area(s) with durable, long-lasting, high visibility markers at all angle points and line of sight obstructions to the satisfaction of the Manager, PFRD/HBP Program Management & Coordination.

68. **HP HP R DEDICATE RECREATION EASEMENT FOR CLASS I OFF-ROAD BIKEWAY PURPOSES:**

A recreation easement shall be irrevocably offered for Class I off-road bikeway purposes through Planning Area 3A-1, per the alignment of the Multi-Use Trail depicted on Exhibit II.6-1, Coastal Access and Public Trails Plan, of subject master/area plan, in compliance with the following conditions:

Prior to the recordation of an applicable subdivision map, the subdivider shall:

- A. Irrevocably offer a recreation easement for Class I off-road bikeway purposes over lots within Planning Area 3A-1 in a manner meeting the approval of the Manager, PFRD/HBP Program Management & Coordination. The subdivider shall not grant any easement(s) over the property subject to the recreation easement unless such easements are first reviewed and approved by the Manager, PFRD/HBP Program Management & Coordination.
- B. Design the necessary improvements for the Class I off-road bikeway, including but not limited to grading, erosion control, signage, fencing, and a grade-separated crossing, as applicable, in a manner meeting the approval of the Manager, PFRD/HBP Program Management & Coordination, in consultation with the Manager, PDSD/Subdivision and Grading. Further, the subdivider shall enter

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into an agreement, accompanied by financial security, with the County of Orange, to insure the installation of the necessary improvements.

- C. Prior to the issuance of the grading permit, the grading plans shall be reviewed by the Manager, PFRD/HBP Program Management & Coordination, to assure that the proposed grading provides for, will not interfere with, or preclude the installation of the Class I off-road bikeway in a location and in a manner meeting the approval of the Manager, PFRD/HBP Program Management & Coordination.
- D. Prior to the issuance of final certificates of use and occupancy and the release of financial security guaranteeing the Class I off-road bikeway improvements, the applicant shall install the Class I off-road bikeway improvements in a manner meeting the approval of the Manager, PFRD/HBP Program Management & Coordination in consultation with the Manager, PFRD/Construction.

69. **Private Local Park.**

- 1. Prior to the recordation of an applicable subdivision map that creates building sites, the subdivider shall make an irrevocable offer to dedicate an easement over (Lot(s) AC, AE, Z for private local park purposes to the County of Orange in a form approved by the Manager, Real Property, in consultation with the Manager, Current Planning Services. The subdivider shall not grant any other easement over the private park easement that is inconsistent with the local park uses, unless that easement is made subordinate to said local park easement in a manner meeting the approval of the Manager, Real Property, in consultation with the Manager, Current Planning Services.
- 2. Prior to the recordation of an applicable final subdivision map, the subdivider shall submit a preliminary concept plan of the proposed private recreation facilities to the Manager, Current Planning Services, for review and approval.

**Fire Protection**

- 70. Prior to the recordation of any subdivision map (except for finance and conveyance purposes), the subdivider shall provide evidence to the Orange County Fire Authority that adequate provisions have been made to provide fire protection and emergency medical services to the project area. The evidence can be either of the following:
  - (a) The subdivider shall enter into and execute a Secured Fire Protection Agreement with the County and contribute fair share financial resources in an amount determined by OCFA; or
  - (b) The subdivider shall design, build, equip, and otherwise fund new fire service facilities and equipment to serve this project in an amount determined by OCFA.

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## 71. F F RB FIRE HYDRANTS

Service Codes: 1.12.1 (Emergency Access & Fire Hydrant Location)  
1.29 & 1.30 (Underground Fire Protection)

- B) Prior to the recordation of a subdivision map, the issuance of any grading permits or the issuance of a building permit, whichever occurs first, the applicant shall submit a fire hydrant location plan to the Fire Chief for review and approval.
- C) Prior to the issuance of a building permit, the applicant shall submit evidence of the on-site fire hydrant system to the Fire Chief and indicate whether it is public or private. If the system is private, it shall be reviewed and approved by the Fire Chief prior to building permit issuance, and the applicant shall make provisions for the repair and maintenance of the system in a manner meeting the approval of the Fire Chief. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website for a copy of the "Guidelines for Private Fire Hydrant &/or Sprinkler Underground Piping."

## 72. F F R WATER AVAILABILITY

Service Code: 1.12.1 (Emergency Access & Fire Hydrant Location)

Prior to the recordation of a subdivision map, the issuance of any grading permits or the issuance of a building permit, whichever occurs first, the applicant shall provide evidence of adequate fire flow. The "Orange County Fire Authority Water Availability for Fire Protection" form shall be signed by the applicable water district and submitted to the Fire Chief for approval. If sufficient water to meet fire flow requirements is not available an automatic fire extinguishing system may be required in each structure affected.

## 73. AUTOMATIC FIRE SPRINKLER SYSTEMS

Service Codes: 1.27-1.28 (Residential Fire Sprinklers)

- A) Prior to the recordation of a subdivision map, a note shall be placed on the map stating that all residential structures shall be protected by an automatic fire sprinkler system in a manner meeting the approval of the Fire Chief.
- B) Prior to the issuance of a building permit, the applicant shall submit plans for any required automatic fire sprinkler system in any structure to the Fire Chief for review and approval. Please contact the Orange County Fire Authority at (714) 744-0499 for additional information.
- C) Prior to the issuance of a certificate of use and occupancy, this system shall be operational in a manner meeting the approval of the Fire Chief.

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## 74. F F RG FIRE ACCESS ROADS

Service Code: 1.12.1 Emergency Access &amp; Fire Hydrant Locations

- A) Prior to the recordation of a subdivision map, a second point of fire department access is required when the total dwelling units exceed 150.
- B) Prior to the recordation of a subdivision map, the issuance of any grading permits or the issuance of a building permit, whichever occurs first, the applicant shall obtain approval of the Fire Chief for all fire protection access roads to within 150 feet of all portions of the exterior of every structure on site. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guidelines for Emergency Access, or Bulletin number 08-99, "Fire Department Access Requirements for A Single Family Residence."
- C) Prior to the issuance of a precise grading permit or building permit, the applicant shall submit and obtain approval of the Fire Chief and County Staff of plans for all public or private access roads, streets and courts. The plans shall include plan and sectional views and indicate the grade and width of the access road measured flow-line to flow-line. When a dead-end street exceeds 150 feet or when otherwise required, a clearly marked fire apparatus access turnaround must be provided and approved by the Fire Chief. Applicable CC&R's or other approved documents shall contain provisions which prohibit obstructions such as speed bumps/humps, control gates or other modifications within said easement or access road unless prior approval of the Fire Chief is granted. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guidelines for Emergency Access."

## 75. F F GU FIRE LANE MARKINGS

Service Code: 1.12.2 (Fire Lane Markings)

- A) Prior to the issuance of any grading or building permits, the applicant shall submit plans and obtain approval from the Fire Chief for fire lanes on required fire access roads less than 36 feet in width. The plans shall indicate the locations of red curbs and signage and include a detail of the proposed signage including the height, stroke and colors of the lettering and its contrasting background. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guidelines for Emergency Access Roadways and Fire Lane Requirements," or Bulletin 06-99, "Fire Lane Requirements on Private & Public Streets within Residential Developments."
- B) Prior to the issuance of any certificate of use and occupancy, the fire lanes shall be installed in accordance with the approved fire lane plan. The approved documents shall contain a fire lane map, provisions prohibiting parking in the fire lanes, and an enforcement method.

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**76. F F R TRAFFIC SIGNAL PREEMPTION DEVICES****No OCFA Service Code**

Prior to the recordation of the applicable subdivision map as determined by the Fire Chief in consultation with the County Staff, the subdivider shall enter into an agreement with the County for the installation of traffic signal preemption equipment for the surrounding controlled intersections. This agreement shall be accompanied by financial security.

**77. F F RGBU FUEL MODIFICATION****Service Codes: 1.9 & 1.10 (Conceptual and Precise Fuel Modification)**

- A) Prior to the recordation of a subdivision map or the issuance of a grading permit, the applicant shall obtain approval from the Fire Chief in consultation with the County staff for a conceptual fuel modification plan and program. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guideline for Fuel Modification Plans and Maintenance."
- B) Prior to the issuance of a precise grading permit, the applicant shall obtain approval from the Fire Chief in consultation with the City Staff for a precise fuel modification plan and program. The plan shall indicate the proposed means of modifying vegetation to reduce the risk to structures. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guideline for Fuel Modification Plans and Maintenance."
- C) Prior to the issuance of a building permit, the developer, under the supervision of the Fire Chief, shall have completed the portion of the approved fuel modification plan determined to be necessary before the introduction of any combustible materials into the project area. Approval shall be subject to an on-site inspection.
- D) Prior to the issuance of any certificate of use and occupancy, the fuel modification shall be installed and completed under the supervision of the Fire Chief with an approved plant pallet. The CC&R's or other approved documents shall contain provisions for maintaining the fuel modification zones, including the removal of all dead and dying vegetation. The fuel modification zones shall be subject to triennial inspections.

**78. F F G ACCESS GATES****Service Code: 1.13 (Vehicular Emergency Access Gate Review)**

Prior to the issuance of any grading permits, the applicant shall obtain the approval from the Fire Chief for the construction of any gate across required fire department access roads. Please contact the Orange County Fire Authority at (714) 744-0499 or visit the Orange County Fire Authority website to obtain a copy of the "Guidelines for Design and Installation of Emergency Access Gates and Barriers."

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79. **F F B COMBUSTIBLE CONSTRUCTION LETTER**

No OCFA Service Code (Usually Received with 1.12.1)

Prior to the issuance of a building permit for combustible construction, the builder shall submit a letter on company letterhead stating that water for fire-fighting purposes and all-weather fire protection access roads shall be in place and operational before any combustible material is placed on site. Building permits will not be issued without Orange County Fire Authority approval obtained as a result of an on-site inspection. Please contact the Orange County Fire Authority at (714) 744-0499 to obtain a copy of the standard combustible construction letter.

**Model Home Complex**80. **CP CP MODEL HOME COMPLEX**

- A. Within ninety (90) days after the termination of the use of the subject property as a model home complex and real estate sales office, the applicant shall remove, relocate or revise the parking lot, signs, all temporary fencing, the sales office and the model homes as necessary to comply with the current applicable zoning regulations.
- B. The use approved by this action shall expire two (2) years from the issuance of the temporary certificate of use and occupancy. Applicant may apply for one (1) one year extension for this permit.
- C. A maximum of ten (10) on-site pennants are permitted in connection with the model home sales use.
- D. Notwithstanding this site plan, applicant shall submit a changed plan to reflect exact size, location and copy of signs associated with the model home sales complex. The sign copy shall be limited to matters relating to the recorded tract within which the signs are located. Such signs shall have a time limit of existence concurrent with the use of the permitted temporary offices within the recorded tract.
- E. No sign shall be posted or placed on public or private property advertising or directing people to the development which is the subject of this permit, unless such sign is allowed by all applicable permits and is expressly permitted by written consent of the property owner. It is expressly understood and accepted by the applicant that this condition is applicable to any sign advertising or directing people to the development, regardless of whether the applicant directly posted or placed the sign in question.
- F. The model home sales office shall be used solely for the first sale of dwelling units approved under this permit.
- G. Model site trap fences shall not obstruct the flow of pedestrian or vehicular traffic passing through the model home complex. The applicant shall install all fencing



behind the sidewalk unless otherwise approved by the Chief Engineer/PFRD or Manager, Traffic Engineering.

81. SG SG G TRAP FENCING

Prior to issuance of any grading permits for a model home complex, the applicant shall locate the trap fencing at the back of the sidewalk to allow full access of the sidewalk that fronts the building lots, in a manner meeting the approval of the Manager, Subdivision and Grading.

**Landscaping**

82. SG SG/BI GU PRIVATE LANDSCAPING

- A. Prior to the issuance of precise grading permits, the applicant shall prepare a detailed landscape plan for privately maintained areas which shall be reviewed and approved by the Manager, Subdivision and Grading. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).
- B. Prior to the issuance of certificates of use and occupancy, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan.
- C. Prior to the issuance of any certificates of use and occupancy, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, to the Manager, Building Inspection Services.

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## 11.0 INVENTORY OF MITIGATION MEASURES PROPOSED TO MINIMIZE THE SIGNIFICANT EFFECTS

Where the analysis detailed in the discussion of environmental topics in Chapter 4 demonstrates that a potential effect does or may occur and is found to have a substantial or potentially substantial and adverse impact on physical conditions within the area affected by the project, that conclusion is noted, and:

- Mitigation measures are provided that will minimize the significant effects and, in most cases, reduce them to levels of insignificance; and/or
- Where feasible mitigation measures are not identified that can reduce the significant effects to levels of insignificance, the significant effect will be identified as one that will result in "significant unavoidable adverse impacts."

The following mitigation measures were identified in Chapter 4 for potentially significant environmental impacts related to implementation of the proposed project.

### 11.1 LAND USE AND RELATED PLANNING

No mitigation measures are required.

### 11.2 POPULATION AND HOUSING

No mitigation measures are required.

### 11.3 GEOLOGY AND SEISMICITY

No mitigation measures are required.

### 11.4 SURFACE AND GROUNDWATER HYDROLOGY

No mitigation measures are required.

### 11.5 WATER QUALITY

No mitigation measures are required.

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## 11.6 TRAFFIC AND CIRCULATION

No feasible mitigation measures have been identified in addition to the Project Design Features (including ATIP requirements) and Standard Conditions.

## 11.7 AIR QUALITY

The following mitigations reduce air pollutants generated by construction equipment and vehicles during the project construction phase.

**Measure 7.1:** In order to reduce short-term construction impacts from emissions from equipment and vehicles, prior to issuance of grading permits, the permit applicant shall include the following measures on construction plans, to the satisfaction of the Director, PFRD:

- (a) Where feasible, the General Contractor shall time the construction activities so as not to interfere with peak hour traffic and minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flag person shall be retained to maintain safety adjacent to existing roadways.
- (b) The General Contractor shall utilize electric or diesel powered equipment in lieu of gasoline powered engines where feasible.
- (c) The General Contractor shall ensure that construction grading plans include a statement that work crews will shut off equipment when not in use.
- (d) The Civil engineer shall include a statement on construction grading plans requiring that all construction equipment be tuned and maintained in accordance with the manufacturer's specifications.

The following mitigation measures reduce fugitive dust generated by soil disturbance and travel on paved and unpaved surfaces during the project construction phase.

**Measure 7.2:** In order to reduce fugitive dust from construction activities, the following shall be implemented by the applicant prior to commencement of grading or demolition.

Prior to issuance of grading permits, the applicant shall furnish documentation to the satisfaction of the Director, PFRD, that the following provisions are included on the grading plans.

- During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
- During construction, water trucks or sprinkler systems shall be used 4 times a day to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning, watering during soil placement, after work is completed for the day, and whenever the wind exceeds 15 mph.

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- After excavation is completed, the entire area of disturbed soil shall be treated immediately with soil bonding agents until the area is landscaped, paved, or otherwise developed so that dust generation will not occur.
- Soil stockpiled for more than two weeks shall be covered, kept moist, or treated with soil binders to prevent dust generation.
- Trucks transporting soil, sand, cut or fill materials and/or construction debris to or from the site shall be tarped from the point of origin.
- Wash mud-covered tires and undercarriages of trucks leaving construction sites.
- Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud that would otherwise be carried off by trucks departing the project site.
- If dust is visibly generated that travels beyond the site boundaries, clearing, grading, earth moving, or excavation activities that are generating dust shall cease during periods of high winds (i.e., greater than 25 mph averaged over one hour) or during Stage 1 or Stage 2 episodes.

**Measure 7.3:** A construction and construction related activity monitor satisfactory to the Director, PFRD, shall be retained by the applicant prior to issuance of grading permit. The monitor shall monitor all activity on a daily basis, keep written daily records, and file monthly activity reports with the Director, PFRD, for the duration of grading and infrastructure construction. The monitor shall be employed by the applicant or the applicant's contractor. The monitor shall report on the following strategies:

(a) Construction equipment exhaust shall be minimized by use of;

- NO<sub>x</sub> control technologies, such as fuel injection timing retard for diesel engines and air to air after cooling.
- Low sulfur fuel (where available).
- Well maintained equipment and proper planning to minimize trips/use.
- Log fuel use, hours of operation, and periodic maintenance.

(b) Fugitive dust shall be controlled as specified in Mitigation Measure 7.2 and SCAQMD rules and regulations.

(c) Restrict delivery of construction supplies and off-site hauling of debris to non-peak travel periods whenever feasible, except for concrete and earthwork related activities.

Implementation of the mitigation measure would reduce the magnitude of the impacts; however, these impacts would remain significant and unavoidable. There are no other feasible mitigation measures available to reduce long-term emissions.

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## 11.8 NOISE

No mitigation measures are required.

## 11.9 BIOLOGICAL RESOURCES

**Measure 9.1:** Prior to issuance of grading permits, the applicant shall establish a trust fund in an amount to be determined in consultation with CDFG, to assist in the ongoing management of raptor predation upon nesting sensitive target species or other sensitive species after the implementation of residential development on the Bolsa Chica Mesa. This fund will be available to CDFG and USFWS if it can be demonstrated by CDFG and USFWS, to the satisfaction of the County Environmental and Project Planning Division, that the residential development results in an increase in raptor predation. If no such effect is demonstrated within five years of completion of project construction, the trust fund shall revert to the Applicant.

**Measure 9.2:** A management plan shall be developed that specifies how natural areas will be protected from residential landscaping. The plan shall be approved by the County Environmental and Project Planning Division prior to issuance of building permits and shall include, at a minimum:

- Methods for public education, including information regarding invasive exotics that homeowners may not plant in their yards.
- A landscape plan for common areas that avoids the use of invasive exotic species.
- An erosion control and storm runoff plan that shall be prepared prior to construction (see Section 4.5.3); if straw bales are used for erosion control, rice straw or equivalent weed free straw shall be used to prevent additional introduction of exotic species into native habitat.

## 11.10 AESTHETICS

No mitigation measures are proposed, since the only way to address the identified impacts is not to develop the project site.

## 11.11 CULTURAL RESOURCES

Since there are no significant adverse impacts identified, no mitigation measures are proposed.

## 11.12 PALEONTOLOGICAL RESOURCES

No mitigation measures are required.

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1 **11.13 RECREATION**

2 No mitigation measures are required.

3  
4  
5 **11.14 HAZARDS AND HAZARDOUS SUBSTANCES**

6 No mitigation measures are required.

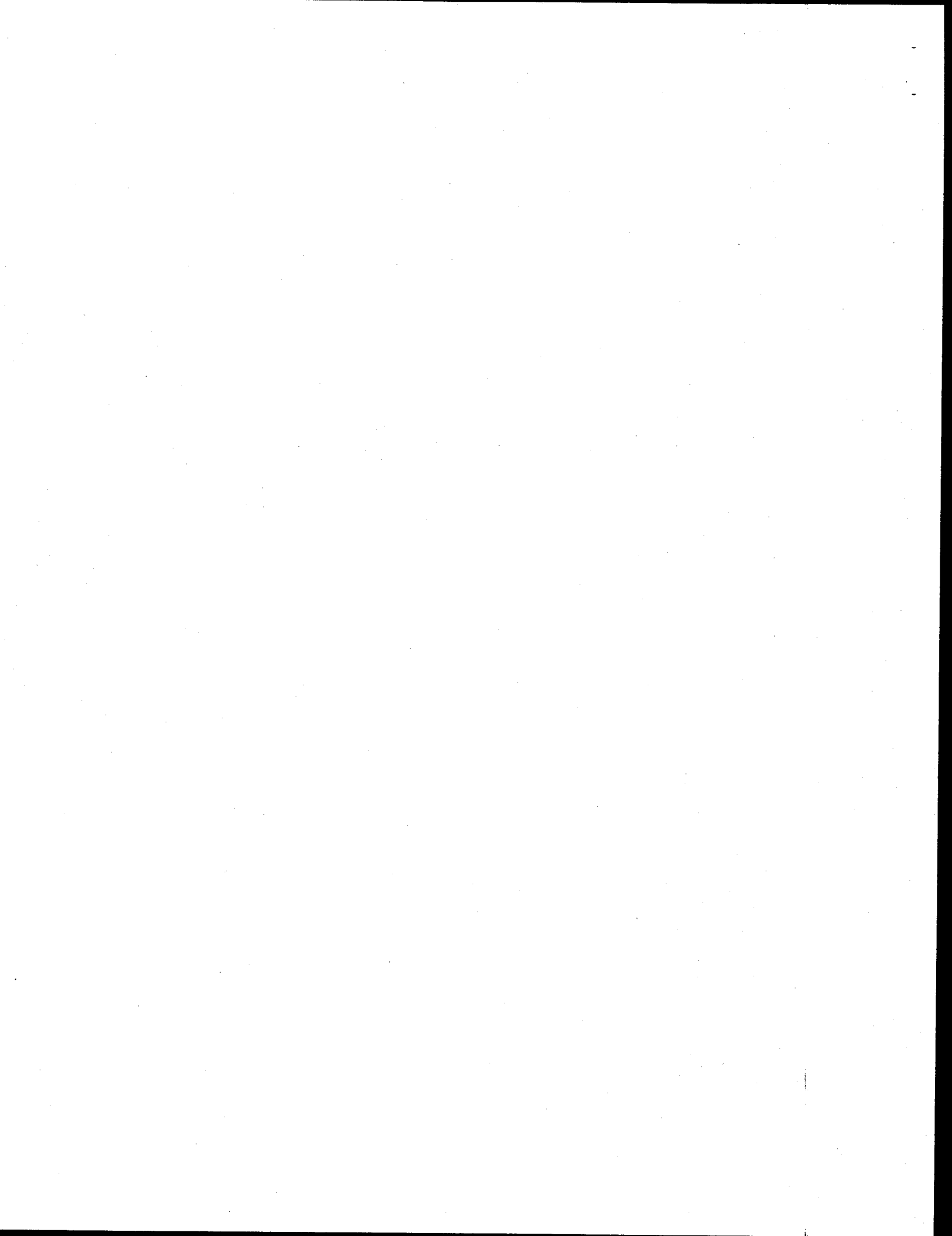
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9 **11.15 PUBLIC SERVICES AND UTILITIES**

10 Measure 15-1: Prior to the recordation of any subdivision map (except for finance and conveyance  
11 purposes), the applicant shall enter into a Secured Fire Protection Agreement with the Orange County  
12 Fire Authority to mitigate impacts to emergency medical services.

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HEARTHSIDE HOMES, INC.

5-05-020

January 21, 2005

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Region

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CALIFORNIA  
COASTAL COMMISSION

**Ms. Teresa Henry**  
**South Coast District Manager**  
**CALIFORNIA COASTAL COMMISSION**  
200 Oceangate, 10<sup>th</sup> Floor  
Long Beach, CA 90802-4416

**RE: Revised Brightwater Project CDP Application**  
**(Hearthside Homes, formerly CDP Application 5-04-192)**

Dear Ms. Henry:

The purpose of this letter is to: 1) provide the Coastal Commission with a comprehensive overview of the revised Brightwater project; 2) highlight the differences between the revised project and the previous Brightwater project that was withdrawn at the Commission's October 2004 meeting; and 3) describe the contents of the Coastal Development Permit Application submittal that accompanies this letter.

#### **BACKGROUND**

In July 2002, the County of Orange approved a tentative tract map and site development permit for the 105-acre Brightwater project, contingent upon approval of a Coastal Development Permit (CDP) by the California Coastal Commission. Hearthside Homes submitted an application for a CDP to the Coastal Commission in October 2002. A public hearing on Hearthside's CDP application was held in October 2004. At the conclusion of the hearing, the Commission expressed concerns regarding the design of the project, particularly as it related to protection of environmentally sensitive habitat areas. In light of the concerns raised by the Commission, Hearthside withdrew its application at the hearing and committed to work with Coastal staff to redesign the project so it would comply with the Coastal Act.

As a result of discussions with Coastal staff and Hearthside's team of planners, engineers and biologists, the Brightwater project has undergone substantial modification. The revised project is now the subject of this new CDP Application.

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## REVISED BRIGHTWATER PROJECT DESCRIPTION

The Brightwater project comprises 105.3 acres on the Upper Bench of the Bolsa Chica Mesa. Brightwater consists of 68 acres of residential development and 37 acres of habitat restoration and protection. The residential portion of the project contains 347 single-family homes. Lot sizes range from approximately 3,000 to 6,000 square feet. Home sizes vary from approximately 1,600 to 4,000 square feet. The architectural theme for the community reflects the same seaside village concept that was described in the October 2002 CDP Application.

Vehicular access to the community is from Warner Avenue on the northwest and from the extension of Bolsa Chica Street on the east. Los Patos Avenue, a neighborhood street, is the northern boundary of Brightwater, but the project does not take access from it. The community is not gated – all streets within the project area are public. Two small public parks are located within the residential area to provide local recreational opportunities. Adjacent to the residential area is a 3-acre native habitat protection and enhancement area, containing an existing seasonal wetland and clusters of Southern Tarplant, that will be planted with native species to enhance the existing resources.

Infrastructure within the project includes a 1.2-million-gallon underground domestic water reservoir and associated aboveground pump facilities located along the northern edge of the project, adjacent to Los Patos. An underground stormwater runoff treatment system is located underneath the southernmost pedestrian paseo that connects the residential area with a perimeter public trail. A 54-inch diameter storm drain will convey runoff from the water quality treatment structure into the State-owned Lowland at the south end of the Mesa.

The project grading plan calls for 220,000 cubic yards of cut and 220,000 cubic yards of fill, resulting in a balanced on-site grading operation. The cuts are a maximum of 10 feet and the fills are a maximum of 15 feet. The grading plan is designed to minimize landform alteration to the site. An interim gravel stockpile that was left on-site as a result of the Coastal Commission-approved demolition of two large World War II military bunkers will be reclaimed and used as base material for the construction of the roads within the project area, reducing haul traffic for project construction.

The western and southern perimeter of the project is comprised of a 34-acre Habitat Restoration and Protection Area. Non-native grasses, which currently occupy most of the site, will be removed and replaced with a wide variety of specially selected native coastal species. The restoration area is designed to function as a buffer zone between the residential development and the adjacent open space, including the Eucalyptus ESHA. The open space will also serve as habitat for local wildlife species. The restoration area will be planted with native species common to grassland and coastal sage scrub habitats on coastal bluffs and terraces in Orange County, including foothill needlegrass, purple

Ms. Teresa Henry  
South Coast District Manager  
California Coastal Commission  
January 21, 2005  
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needlegrass, blue-eyed grass, coast prickly pear, and coast buckwheat. The 34 acres will be dedicated to a public agency and the Brightwater Maintenance Corporation will assume responsibility for maintaining a portion of the restoration area closest the homes, as well as the public trail described below.

Public access within the restoration area will be provided by a six foot-wide public trail located within the 25 feet of the buffer closest to the residential edge of the project. The trail will be constructed of decomposed granite. A fence will be placed along the outside edge of the trail to prevent users from wandering into the habitat area. The trail will connect to planned County trails along Warner Avenue, to new and existing sidewalks along Los Patos Avenue, and to existing sidewalks along Bolsa Chica Street. When the new trail and sidewalks along Los Patos are completed, the public will be able to walk around the entire perimeter of the Brightwater project, as well as along all sidewalks and paseos within the development. Pedestrian access to the open space trail will also be available from the new residential area via three 30-foot-wide pedestrian paseos that will connect the new residential community with the trail and public open space area.

At such time the revised Brightwater project is approved by the Coastal Commission, Hearthsides will submit the revised project to the County of Orange and request the County to modify its prior approvals to reflect and be consistent with the CDP.

#### **DIFFERENCES BETWEEN THE REVISED 2005 PROJECT AND THE WITHDRAWN 2004 PLAN**

Significant changes have been made to the Brightwater Project in response to issues and concerns expressed by the Coastal Commission at its October 2004 hearing on CDP Application 5-04-192. The residential development area has been reduced from 77 acres to 68 acres, primarily as a consequence of increasing the setbacks and buffer areas along the perimeter of the project, and also as a consequence of preserving the Southern Tarplant area near Los Patos Avenue.

Other significant changes include the elimination of uses within the buffer that the Commission described as undesirable (e.g., public parking area, concrete multi-use trails, and fuel modification for fire management). The water quality program has been completely revamped by eliminating the vegetated treatment system and retention basin, which were also previously proposed in the buffer.

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Ex. 11  
p. 3 of 6

A summary of the changes to the project follows:

1. **Residential Community:** The number of single-family homes has been reduced from 379 to 347. The private clubhouse, swimming pools, and recreation area have been eliminated. The number of residential product types has been reduced from six to four, through the elimination of the 4,000 and 7,000 square foot lots.
2. **Public Access:** The residential community is no longer private. The vehicular security gates and guardhouses have been removed from the residential entries. All streets, sidewalks and parks are public. The park road and parking area have been removed from buffer for the Eucalyptus ESHA. The 10-foot-wide multi-use trail has been eliminated in favor of a 6-foot-wide decomposed granite trail located within 25 feet of the residential edge. The interpretive signs and kiosks have been removed from the trail area.
3. **Water Quality:** The constructed wetlands treatment system has been eliminated from the open space area on the western perimeter of the project. The retention basin within the Burrowing Owl buffer area has also been eliminated, and is no longer necessary due to the elimination of the water quality wetlands. The new water quality treatment system will consist of a flow-through storm water-filtration system constructed entirely within the residential area. A new 54-inch storm drain pipe will convey filtered runoff from the treatment system to the Lowland, south of the Mesa.
4. **Eucalyptus ESHA Buffer:** The buffer between the residential development and the Eucalyptus ESHA has been increased by 50% – from 100 feet to a minimum of 150 feet. The composition of the buffer vegetation has changed from a landscape requiring regular fuel modification maintenance, and irrigation (because of wildland fire concerns) to a native grassland community that requires no ongoing maintenance. The paved 10-foot-wide multi-use trail, interpretive signs, access road, public parking, and related improvements have all been removed from the buffer zone.
5. **Landform Alteration:** The revised project does not propose to fill the existing borrow site at the southeast corner of the Mesa. (The previous plan proposed to fill the borrow site to accommodate 30 public parking spaces.) Instead, the slope of the borrow site will be planted with native grassland species; the bottom will be planted with coastal scrub species. Residential development will be set back 100 feet from the top of the borrow site slope.

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Ex. 4 of 6  
Ex. 11

6. **Burrowing Owl ESHA and Buffer:** The Burrowing Owl ESHA along the southwestern edge of the project will be preserved and a 150-foot-wide buffer will be established between the ESHA and the residential area. The habitat value of the ESHA and buffer will be enhanced by the native grassland restoration.
7. **Development Setback from Top of Slope:** The western edge of the development area adheres to the top of slope and 50-foot setback established by the Commission at its November 2000 meeting.
8. **Southern Tarplant ESHA and Buffer:** Translocation of the Southern Tarplant is no longer proposed. The Tarplant will be preserved in-place, and a 50-foot buffer will be established around the plants. As in the previous plan, the seasonal wetland in this same area will be preserved and a 100-foot buffer will be established. The underground water reservoir near Los Patos Avenue has been reconfigured so it is located further away from the seasonal pond and Tarplant to prevent any adverse impact during construction of the water facility. A temporary water well that will be used during construction of the project will be located outside the ESHA. Native species compatible with Tarplant and the seasonal wetland will be planted to enhance the habitat value of the ESHA and buffer, and will be fenced to prevent any disturbance. The Brightwater Maintenance Corporation is proposed to own the property. An Open Space Easement will be placed on the site to ensure that it remains as open space in perpetuity.
9. **Ownership of the Perimeter Open Space Area:** Under the previous plan, the open space area on the perimeter of the project (previously 28 acres, now 34 acres) was to be owned by the County of Orange and operated as a natural "Upland Habitat Park." Since park "development" has been removed from the open space area (e.g., multi-use trail, parking area, etc.), it is unlikely that the County will be interested in owning and maintaining the property. In view of the pending sale of the Lower Bench of the Mesa to the State, Hearthsides has made inquiries to the State regarding its interest in owning the 34 acres and adding it to its Ecological Reserve property. The preliminary proposal is that Hearthsides would convey fee title for the land to the State, and the Brightwater Maintenance Corporation would retain or be granted an easement for maintenance of the trail and portions of the habitat restoration area nearest the homes.
10. **Preservation of Archaeological Area:** Formally, under the 2004 plan, residential development covered all of the land area occupied by Archaeological Site ORA-83. As a result of increasing the development setback along the southeastern corner of the project, approximately 40% of the area previously occupied by ORA-83 will be preserved in open space. Although a comprehensive archaeological data recovery program has already been completed for the site, a large portion of the area will remain as open space and accessible to the public.

Ms. Teresa Henry  
South Coast District Manager  
California Coastal Commission  
January 21, 2005  
Page 6 of 6

11. **Remainder Parcel:** The plan for the 11.8-acre remainder parcel is the same as in the previous CDP Application – it is included as part of the 103-acre Lower Bench property that will be acquired by the State pursuant to the terms of the Purchase and Sale Agreement between Signal Landmark (an affiliate of Hearthside Homes) and the State Wildlife Conservation Board. It is Hearthside's understanding that the State intends to add the property to the existing Bolsa Chica Ecological Reserve.

**DESCRIPTION OF MATERIALS SUBMITTED FOR THE COASTAL DEVELOPMENT PERMIT APPLICATION**

Accompanying this letter is a three-ring binder containing the formal CDP Application and related project information requested by Coastal Commission staff in meetings and discussions concerning this prospective application. Included in the binder is the Site Plan, Grading and Drainage Plan, Coastal Sage Scrub and Native Grassland Creation and Monitoring Plan, and other information that staff has requested. Technical data pertaining to the revised plan were previously transmitted to staff, and are not included in the binder in an effort reduce the bulk of this submittal.

Much of the materials and information requested by staff during the review of the previous CDP Application 5-04-192 (e.g., Final SEIR, Consultant Reports, Technical Attachments, etc.) are still relevant to the revised project and are on file with the Commission.

Please note that the binder contains a table of contents that provides a comprehensive list of the plans and documents included in the submittal. If there are any additional items you need for your review, please contact me at (949) 250-7760.

Sincerely,

HEARTHSIDE HOMES, INC.

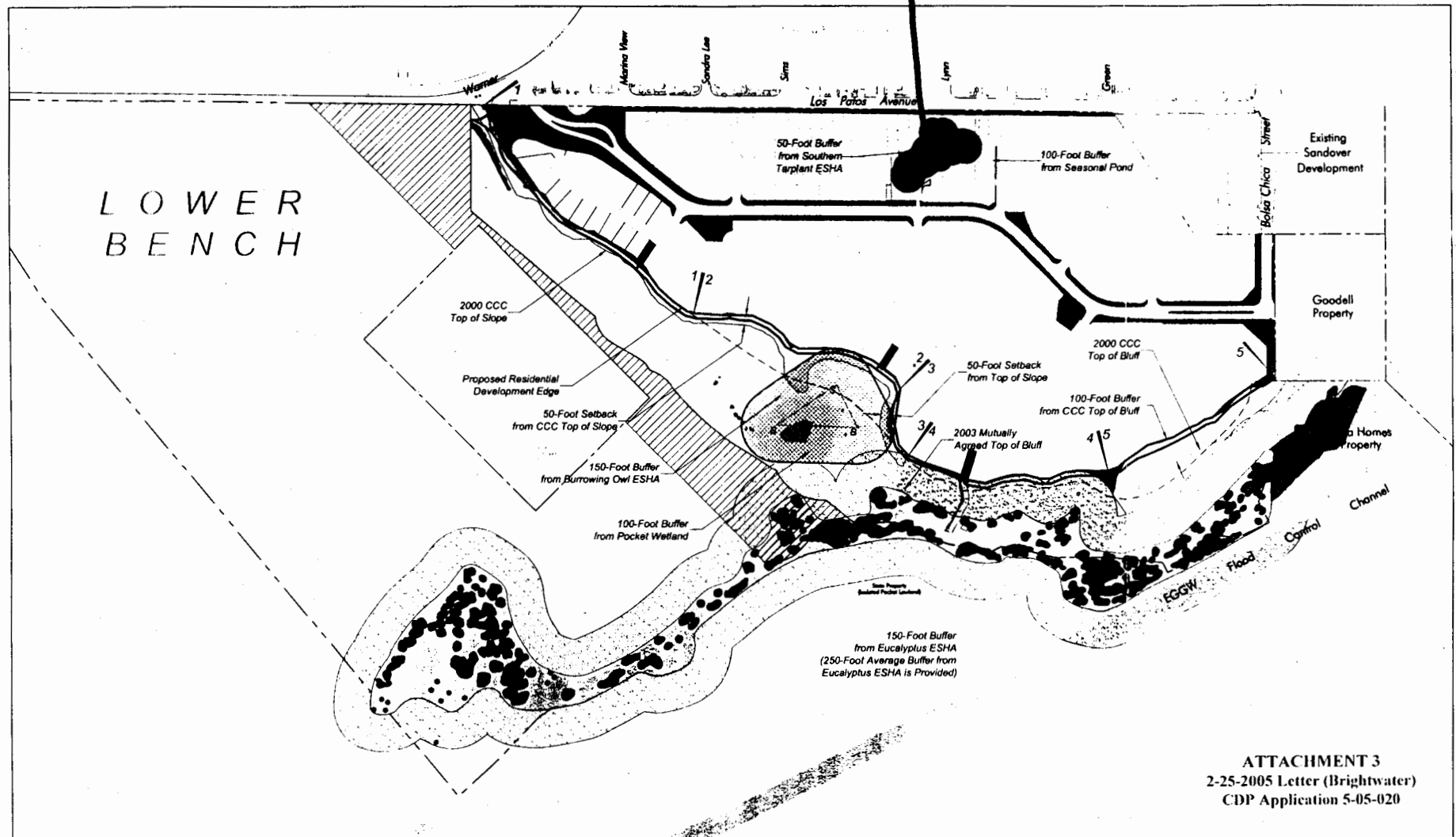


Ed Mountford, Sr. Vice President

cc: John Dixon / Mark Johnsson / Jack Gregg, San Francisco Office  
California Coastal Commission  
Deborah Lee, San Diego Coast District Office

5-05-020  
EX 11  
P. 6 of 6

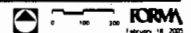
# Los Pobos Wetland and Southern Tarplant ESHA Preserve



ATTACHMENT 3  
2-25-2005 Letter (Brightwater)  
CDP Application 5-05-020

BRIGHTWATER

Proposed ESHA Buffers and Open Space Setbacks



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5-05-020  
EX. 12  
P. 1 of 1





**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896  
SACRAMENTO, CA 94296-0001  
(916) 653-6624 Fax: (916) 653-9824  
calshpo@ohp.parks.ca.gov  
www.ohp.parks.ca.gov



15 November 2004

In Reply Refer To  
30-0073

Louise V. Jeffredo-Warden  
Maritime Shoshone, Inc.  
146 La Grande Avenue  
Moss Beach, California 94038-9745

SUBJECT: STATE HISTORICAL RESOURCES COMMISSION ACTION ON A NATIONAL REGISTER OF  
HISTORIC PLACES REGISTRATION FORM FOR ARCHAEOLOGICAL SITE CA-ORA-83, ORANGE  
COUNTY

Dear Ms. Jeffredo-Warden,

The purpose of this letter is to formally notify you of the State Historical Resources Commission's (Commission) recent action on your National Register of Historic Places (National Register) registration form for archaeological site CA-Ora-83, or the Cogged Stone site.

As you are aware, the Commission met in the City of Woodland in Yolo County on 5 November 2004, and considered your submission for the subject property. The result of that consideration is that the Commission conditionally moves to recommend that the State Historic Preservation Officer submit your form to the Keeper of the National Register (Keeper) for a determination of CA-Ora-83's eligibility for inclusion in that register. The Commission agrees that the property is eligible at the national rather than the state level of significance. The conditions upon which the Commission's motion is contingent include

- 1) revising the registration form's statement of significance to emphasize the information that the property may be able to contribute to the coastal migration theory of the peopling of the New World,
- 2) revising the registration form's statement of significance to refocus the consideration of the property's cogged stones as among the earliest examples of abstract rather than representational, portable, prehistoric rock art or sculpture in North America under Criterion C rather than Criterion A,
- 3) revising the registration form's statement of significance to more succinctly state the case for the property as a prehistoric archaeoastronomical observation point, and making the statement of this case more of a consideration rather than a major aspect of the property's significance,
- 4) revising the registration form to be more concise, and
- 5) completing the revisions and submitting the registration form to the Keeper no later than 5 May 2005.

The Commission directs staff to determine whether the above conditions are met.

The Commission's staff is available to provide any guidance that you may require should you choose to so revise your registration form. Please direct your questions or concerns to Fiscal and Registration Unit archaeologist Mike McGuirt at 916.653.8920 or at [mmcguirt@ohp.parks.ca.gov](mailto:mmcguirt@ohp.parks.ca.gov).

Sincerely,

Milford Wayne Donaldson, FAIA  
State Historic Preservation Officer

5-05-020  
EX. 13  
P. 1 of 2

**Teresa Henry**

---

**From:** Michael McGuirt [mmcgu@ohp.parks.ca.gov]  
**Sent:** Wednesday, December 15, 2004 2:45 PM  
**To:** thenry@coastal.ca.gov  
**Subject:** STATE HISTORICAL RESOURCES COMMISSION ACTION ON A NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM FOR ARCHAEOLOGICAL SITE CA-ORA-83, ORANGE COUNTY



30-0073ora83louise  
letter.doc

Dear Ms. Henry,

Please find below a digital copy of the letter that you requested from me this afternoon on the telephone. The State Historic Preservation Officer signed a hardcopy of the letter rather than using a digital signature. For this reason, you will find the attached copy to be unsigned.

Please do not hesitate to call me if I can be of any further assistance.

Sincerely,

Mike

Michael D. McGuirt, RPA  
Associate State Archaeologist  
Project Review Unit  
California Office of Historic Preservation  
P. O. Box 942896  
Sacramento, California 94296-0001  
916.653.8920 (Office) 916.653.9824 (FAX)  
mmcguirt@ohp.parks.ca.gov

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EX. 13  
P. 2 of 2

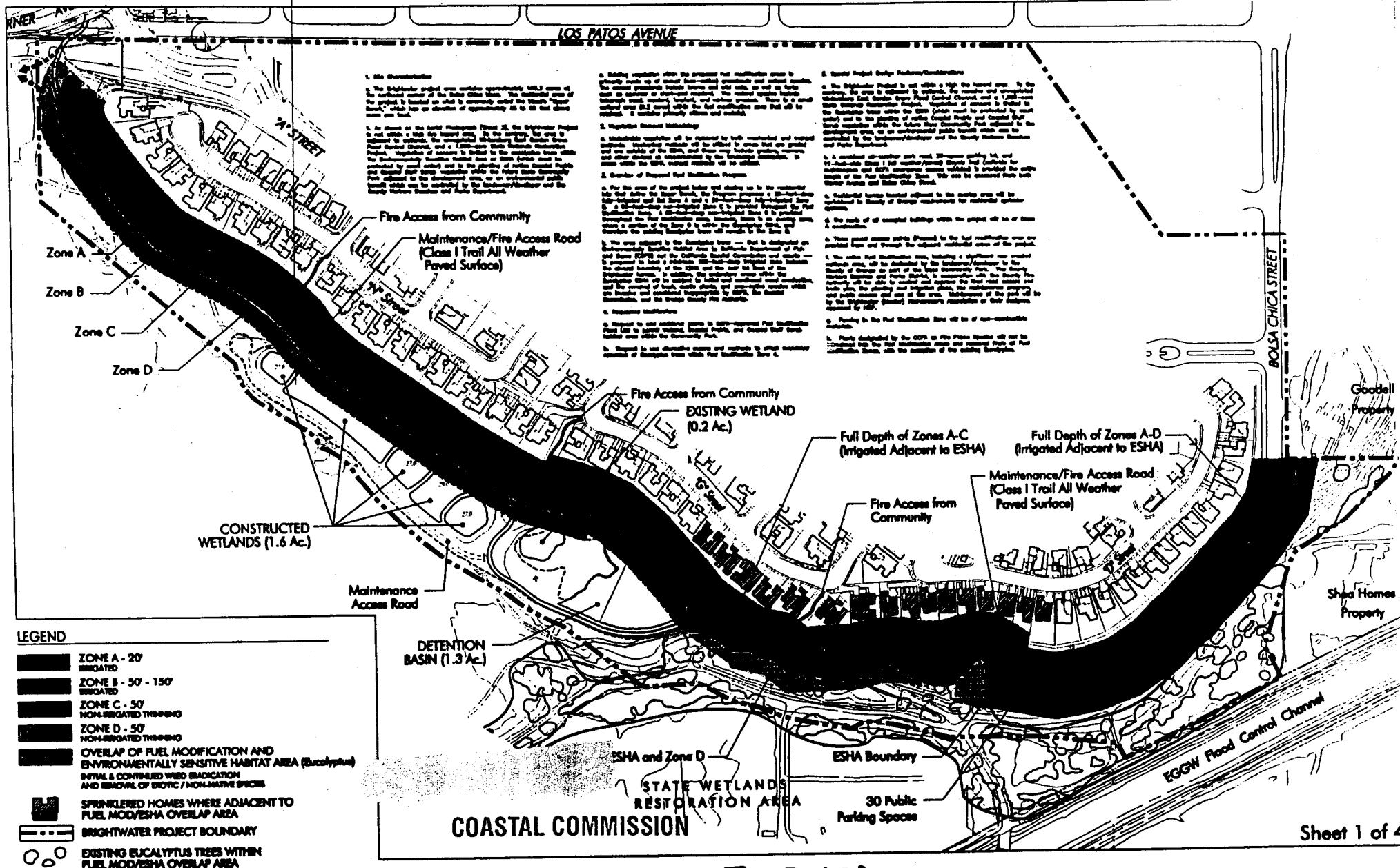


EXHIBIT # 14 **5-05-020**  
 PAGE 1 OF 1

**BRIGHTWATER DEVELOPMENT**  
**Bolsa Chica Planned Community**

**Zones and Program Description**  
**Conceptual Fuel Modification Plan**

August 12, 2002

Mr. Bret Anderson  
Senior Fire Safety Specialist  
Planning and Development Services Section  
ORANGE COUNTY FIRE AUTHORITY (OCFA)  
180 S. Water Street  
Orange, CA 92866-2123

PLANNING  
DESIGN  
LANDSCAPE ARCHITECTURE  
ENTITLEMENT SERVICES Tel: 949.666.1900  
MAPPING AND PRESENTATIONS

## ATTACHMENT 9.2

### Brightwater CDP

**SUBJECT: OCFA Service Request (SR) No. 68164  
Conceptual Fuel Modification Plan for  
Brightwater Project — Tentative Tract Map No. 15460  
Unincorporated Huntington Beach Area**

Dear Mr. Anderson:

Consistent with your letter dated April 26, 2002, we are hereby submitting a revised Conceptual Fuel Modification Plan for the Brightwater Project (TTM No. 15460) which lies in an unincorporated area adjacent to the City of Huntington Beach.

This submittal is intended to demonstrate compliance with your letter, and in particular the 1997 California and Uniform Codes (CBC, UBC, UFC, and CFC) and other codes as adopted and amended by state regulation and local jurisdiction, and consists of the following:

- ☐ Three (3) sets of the corrected Conceptual Fuel Modification Plans, in a standard drawing sheet format;
- ☐ A point-by-point response to each of the comments/requests contained in your 4-26-02 letter (a copy of the original letter is attached); and
- ☐ An Attachment "A" to this letter which describes two proposed Alternative Means and Methods of complying with your guidelines/requirements.

#### Answers to Your Comments/Requests

Comment/Request No. 1: *Plants proposed are not on the approved plant list. Ensure to only use the exact verbiage from the OCFA plant palette in the OCFA Guideline for Fuel Modification and Maintenance dated April 10, 2001. Some are close in kind and some are not on the list at all.*

Answer: We are not proposing to retain or introduce any plants on the Orange County Fire Authority's List of Undesirable Plants, except for retention of eucalyptus trees within a State-designated, Environmentally Sensitive Habitat Area (see Sheet 2). We are requesting to add additional plants to the OCFA Approved Fuel Modification Plant List through the Alternate Means and Methods process (see Attachment "A").

COASTAL COMMISSION

EXHIBIT #

14a

PAGE

68164  
BRIGHTWATER

**ORANGE COUNTY FIRE AUTHORITY  
REVIEWED by Planning & Development**

Approval subject to field inspection and required test, notations hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any law.

OCFA Service Request # 68164  
Fee Codes: 1.9 + 1.47  
By: B. Anderson Date: 8/30/02  
(Employee # 3770)

**ONLY STAMPED SHEETS REVIEWED  
BY ORANGE COUNTY FIRE AUTHORITY**

Call 13 hrs. in advance  
to schedule inspection.

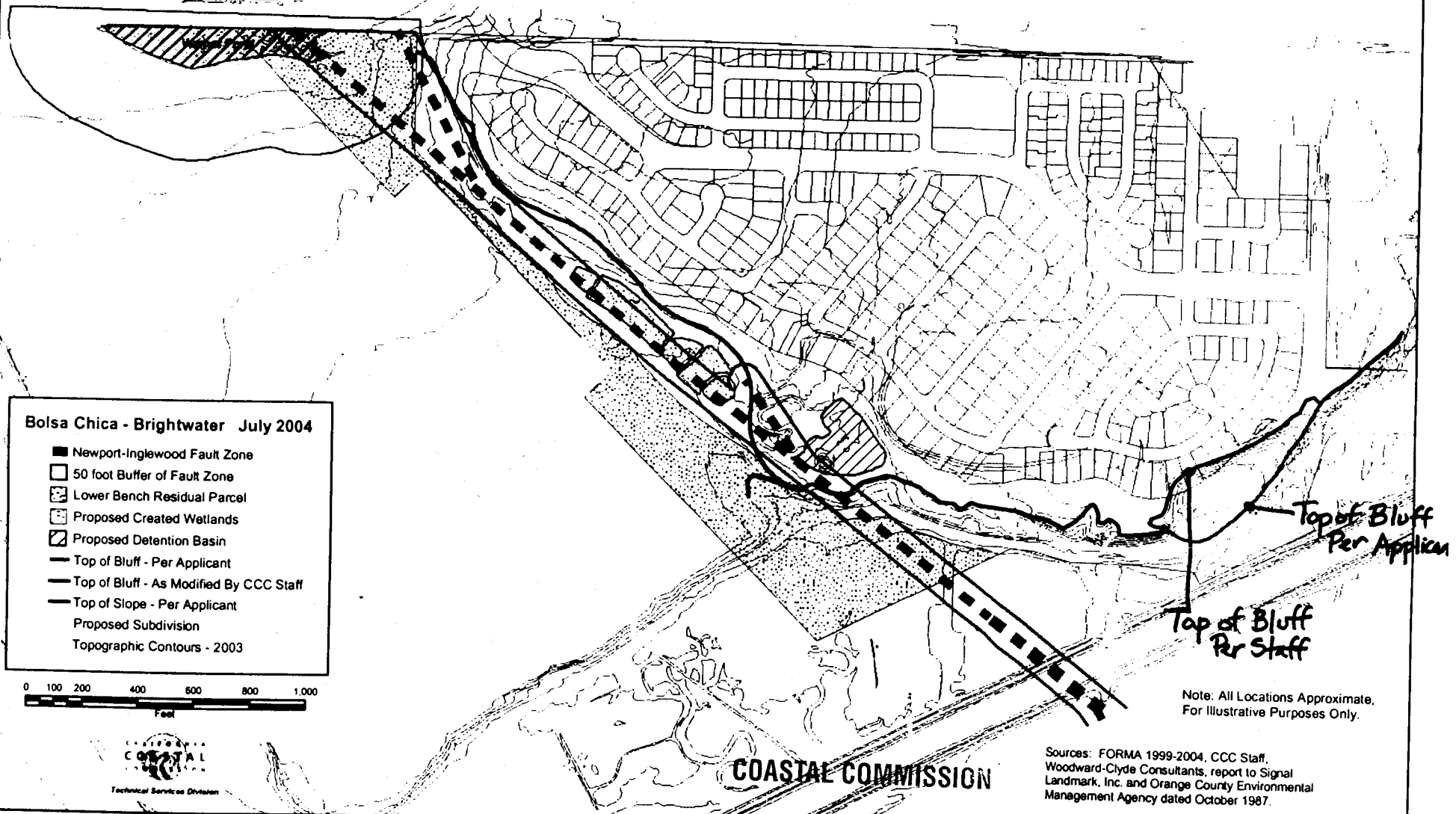
Phone 714-244-0472

COASTAL COMMISSION

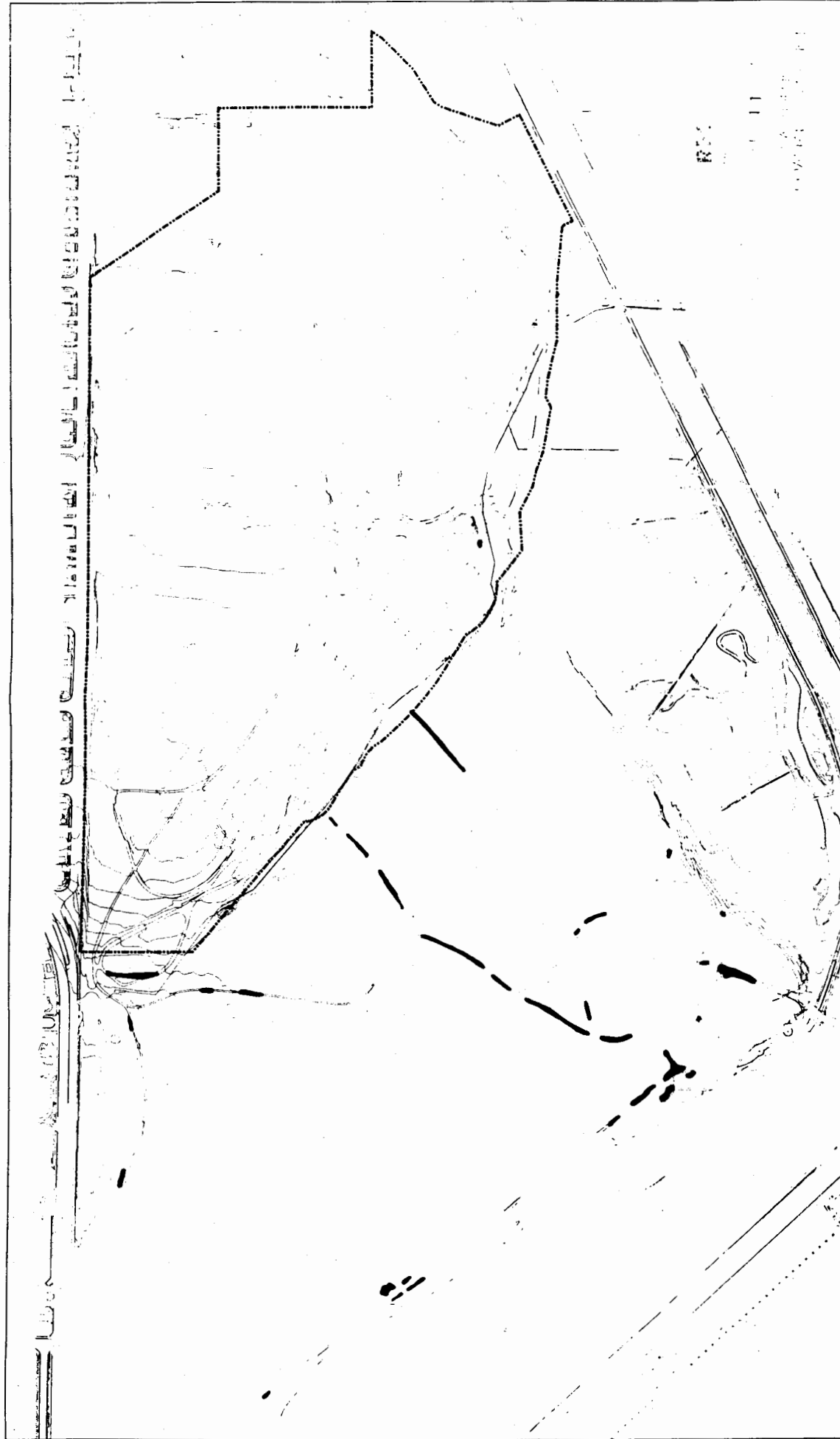
EXHIBIT # 14a  
PAGE 22 OF 22

Goodell

# **Bolsa Chica - Brightwater** **Geotechnical Review and Lower Bench Residual Parcel**





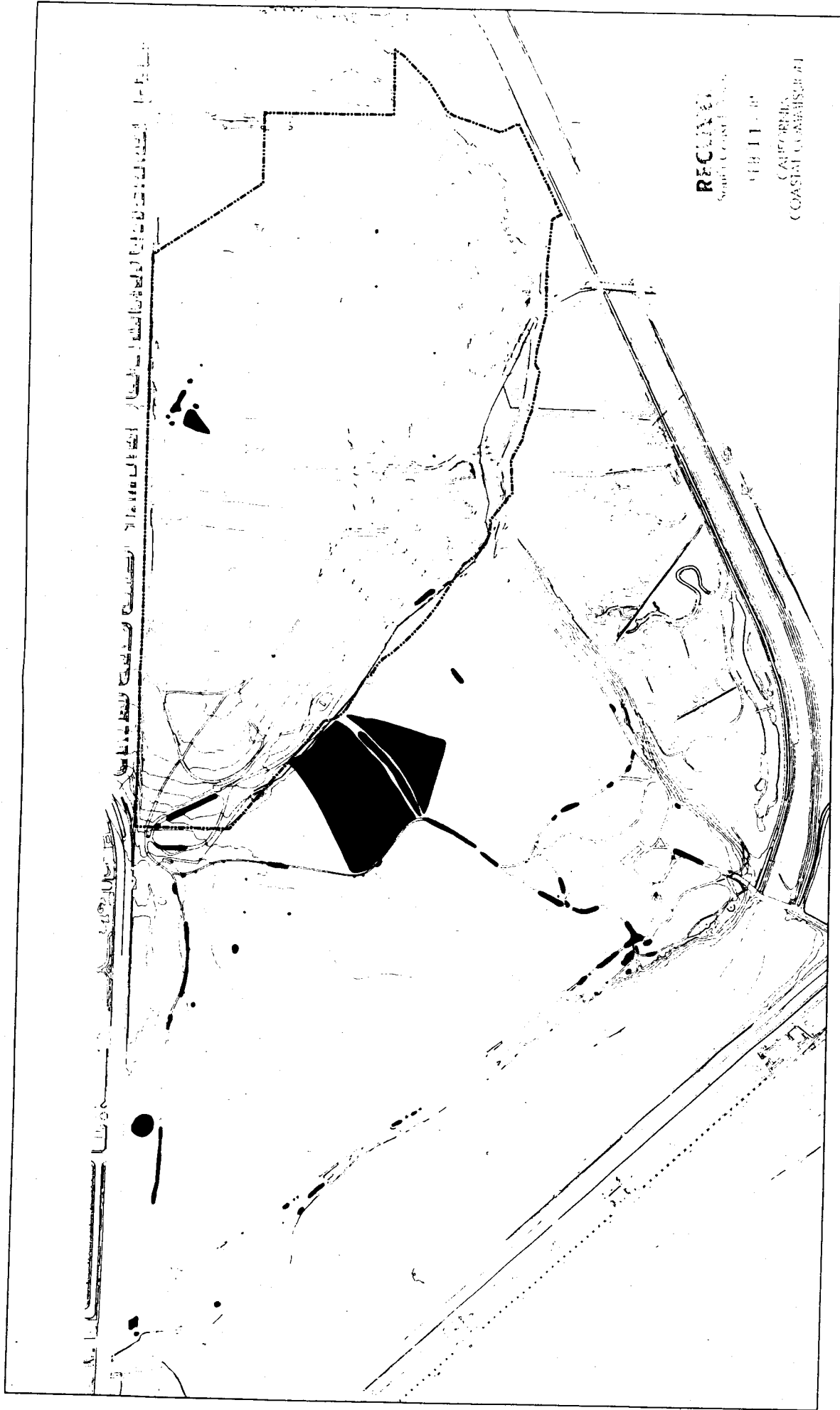


TARPLANT 1999

COASTAL COMMISSION  
5-05-020

1 0 175 350 Feet  
ICRMA  
FEB 2004

EXHIBIT # 16  
PAGE 1 OF 4



COASTAL COMMISSION

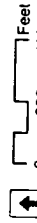
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16

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TARPLANT 2000



ICRMA

FEB. 2004



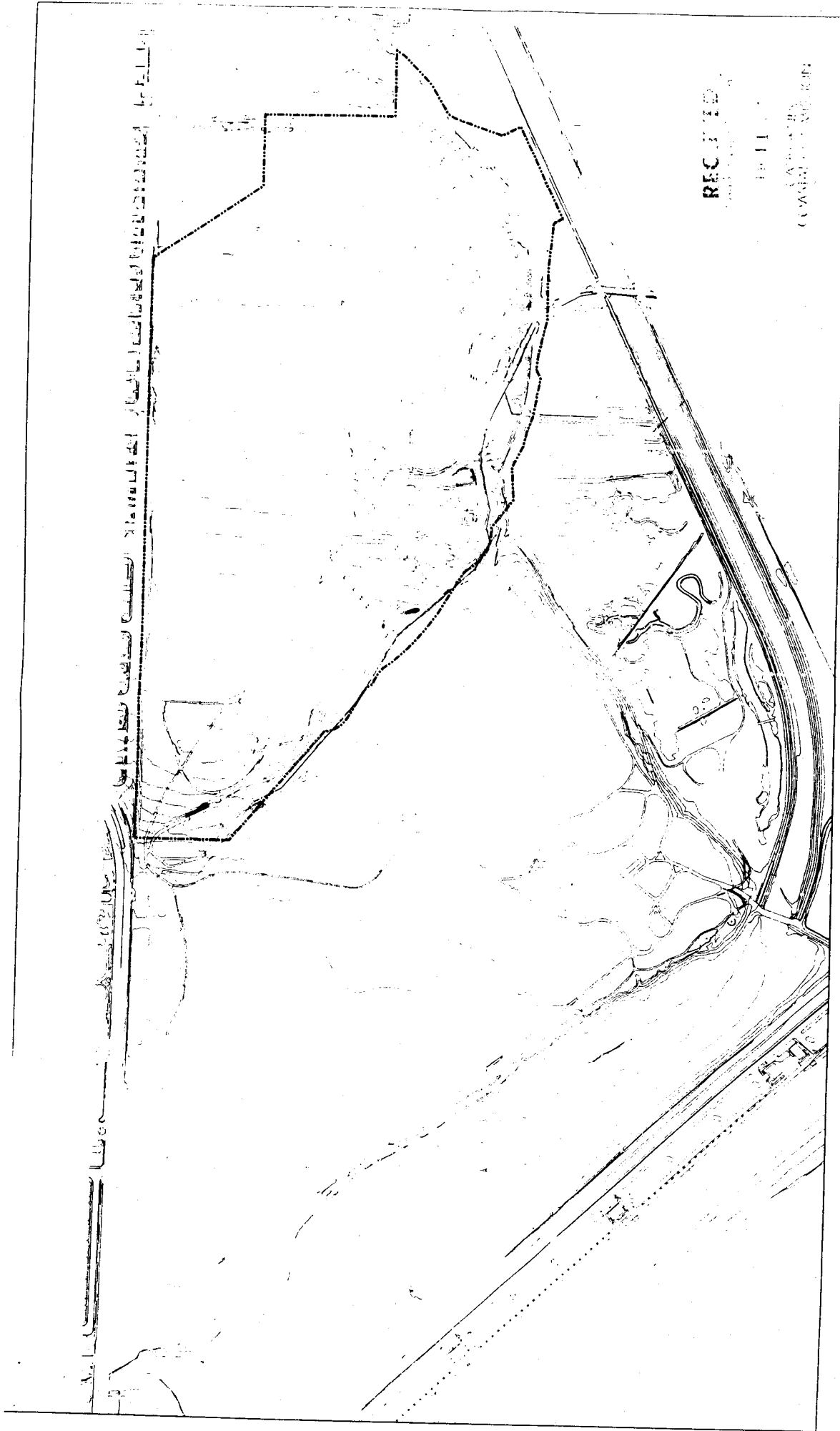
RECEIVED  
JUL 11 2001  
U.S. COAST & GEOD. SURV.  
WASHINGTON, D.C.

COASTAL COMMISSION  
5-04-192

TARPLANT 2001

0 200 400 Feet  
↑ ICRMA FEB. 2004

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COASTAL COMMISSION

5-05-020

EXHIBIT #

16

PAGE

4

OF

4

TARPLANT 2002

## MEMORANDUM

DATE: December 14, 2004

TO: John Dixon

FROM: Art Homrighausen 

SUBJECT: Supplemental Information on Southern Tarplant Mapping—Bolsa Chica Mesa

RECEIVED  
South Coast Region

DEC 16 2004

CALIFORNIA  
COASTAL COMMISSION

In response to the discussion during our teleconference on November 22, 2004, I have assembled, and carefully reviewed, all available field maps and final graphic depictions pertaining to the southern tarplant mapping that was performed by LSA Associates, Inc. (LSA) biologists from 1999 through 2004. I have also had further discussions with biologists Micaele Maddison and Jim Harrison. As a result, I am more convinced than ever that the Global Positioning System (GPS) mapping that was recently completed by Ms. Maddison is the most accurate delineation of the essential elements of the southern tarplant population on the upper mesa and is the best available information for the delineation of an ESHA boundary, if such a delineation is to be made. I have come to this conclusion for two reasons, which are discussed in more detail below: (1) the nature of the non-GPS mapping; and (2) my confidence in the ability of Ms. Maddison to correctly identify in the field the past occurrences of the bulk of the tarplant colony on the upper mesa.

## PAST FIELD MAPPING

The purpose of the past field mapping was to identify the approximate numbers and distribution of southern tarplant throughout the Bolsa Chica Mesa, primarily for purposes of the CEQA analysis. This information was also used in the planning for southern tarplant relocation, which was consistent with the project design features identified in both the 1996 EIR for the entire Bolsa Chica area and the 2002 Subsequent EIR for the Brightwater development. The field mapping was never intended to be, nor is it appropriate for, definition of precise lines to be used for site planning restrictions. Instead, all of the mapping that was conducted during the actual surveys of southern tarplant was completed using general polygons, and there are two significant sources of potential error in this mapping.

First, the mapping during the surveys was undertaken on a relatively small scale (i.e., with aerial photographs). Copies of these maps, with the mapping notations, are attached, with the exception of the field map that was used for the 2001 surveys (unfortunately, the last person to use this map is no longer with LSA, and we cannot locate it.) The scales of these maps range from approximately 150 feet per inch to 750 feet per inch. At these scales, it is very difficult to precisely relate a specific position on the ground to the aerial photograph. In the locations where southern tarplant occurs, the only conspicuous landmarks in the field that are visible on the aerial photographs are the roads and trails. Thus, the locations of tarplant are more or less correctly mapped laterally with respect to the visible roads, but the position *along* or *outside* of the roads is very difficult to gauge, and was often undertaken by attempting to visually triangulate off of other visible landmarks, such as the homes along Los Patos Avenue. At these scales, the width of a pencil line can easily be 20 to 30 feet, and the error in the plot of the actual location along a road could be many tens of feet. Therefore, at best, the original field mapping should be considered only a general location of the colonies, corresponding with fairly accurate number estimates.

COASTAL COMMISSION

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2

The second major source of potential error in the mapping is in the transfer of the field mapping from the aerial photos to the topographic map. The aerial photographs were neither orthographically rectified nor georeferenced. Further compounding this issue, the topographic map that was used as a base was not georeferenced at the time the plotting was conducted, and the primary landmarks for the colonies on the upper bench (i.e., the roads and trails) are not shown on the topographic map. Therefore, our GIS technicians did their best to "line up" both the aerial photos and the topographic mapping with the GIS coordinate system. The result is that likely error inherent in this transfer process is also several tens of feet.

The magnitude of the potential error of the mapping with the tools that we had available is well illustrated by examining the mapped locations of a specific, recurring colony that was observed in 2000 (663 individuals), 2001 (848 individuals), and 2004 (150 individuals). When conditions are favorable, this colony has consistently occurred in the same location, generally in a depression along a rutted road/path that is clearly visible on all of the aerial photographs. However, the 2000 observation was mapped at a location approximately 40 to 60 feet north of the location mapped in 2004. The location mapped in 2001 is approximately 100 feet northeast of the plot in 2004, and 100 feet southeast of the 2000 plot. It should be noted that the aerial photograph used in 2004 was the most accurate of the photos that we used, and not surprisingly, corresponds most closely with the location information that was derived using GPS, as described below. However, it is rather imprecise compared to the GPS line.

## GPS MAPPING

The same location described in the preceding paragraph and the two other locations observed on the upper bench in 2004 were precisely mapped with GPS equipment in fall 2004, based on a combination of the remnant southern tarplant vegetation and the microtopographical features that are clearly visible in the field and which have remained consistent from year to year. In reality these three locations correspond exactly with the locations identified in 2001 (the year with the highest population numbers), even though the previous mapping showed them in different locations. However, the areal distribution in 2000 and 2001 was somewhat greater, especially in one low-density polygon that contained 41 individual plants in 2000. Therefore, during the GPS mapping, 12.5 times more habitat than was represented by remnant vegetation was mapped in 2004, based on a combination of recollection and microtopography/ soil features. The intent of this additional mapping was to capture as much of the seed bank as possible without identifying weedy areas that contained very little southern tarplant seed. We readily acknowledge that the GPS mapping may have excluded a few areas that contained low densities of southern tarplant in past years. However, we are highly confident that the locational information is much more accurate than any of the previous mapping, and that the GPS mapped areas captured all of the "especially valuable" southern tarplant habitat. Furthermore, when a 50-foot buffer is added to the GPS-mapped areas, it will capture 99 percent of all of the individual occurrences of southern tarplant over the five years that LSA has mapped it.

cc: Ed Mountford  
Deborah Lee  
Teresa Henry

**COASTAL COMMISSION**

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PAGE 2 OF 2

RECEIVED  
South Coast Region

JUN 15 2004

CALIFORNIA  
COASTAL COMMISSION

June 11, 2004

Dr. John Dixon  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, California 94105

Subject: California Ground Squirrel Distribution in the Lower Bolsa Chica Mesa Area

Dear Dr. Dixon:

At your request, LSA Associates, Inc. (LSA) surveyed for California ground squirrel (*Spermophilus beecheyi*) activity in the vicinity of the Lower Bolsa Chica Mesa in Orange County, California. The burrowing owl (*Athene cunicularia*)—a California Species of Special Concern and of widespread conservation concern elsewhere in western North America—uses the burrows of rodents such as the California ground squirrel. Up to two burrowing owls wintering on Bolsa Chica Mesa in recent years frequented the World War II era borrow area identified by the concentration of squirrel locations midway along the south side of the development area boundary shown on Figure 1. Because of the possibility that adjacent development might reduce the suitability of the borrow area for burrowing owls, specific alternative areas and/or mitigation for this species are being considered.

## STUDY AREA AND METHODS

LSA biologists Richard Erickson and Leo Simone conducted the survey between 9:00 a.m. and 1:00 p.m. on June 2, 2004; squirrels were active on the surface throughout the period. The area surveyed included all of the lower mesa, which is bounded on the west by Bolsa Bay, on the north by Warner Avenue, on the east by the upper mesa development area, and on the south by the lowlands adjacent to the East Garden Grove-Wintersburg Channel. Also surveyed were all of the lowland areas north of the channel and west of a line extending directly south from the end of Bolsa Avenue (the same line forming the eastern boundary of the development area).

Most of the survey area was covered on foot. Areas of disturbance or with a break in topography were examined most thoroughly. On an aerial photograph, each observer marked all squirrels detected by sight or sound and all burrows showing signs of current use. These were later combined to create Figure 1.

## RESULTS

Approximately 130 squirrel locations were mapped. This number should not be considered an accurate population estimate but rather a rough approximation of how squirrels are distributed on the site. Inspection of Figure 1 reveals several areas where squirrel activity is concentrated. There is a break in topography in all of these areas: along the periphery of the development area where the

6/11/04&lt;P:\HSH930\squirrel survey.wpd&gt;

COASTAL COMMISSION

5-05-020

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upper mesa gives way to the lower mesa on the west and to the Bolsa Chica lowlands on the south, and on the periphery of the lower mesa where it drops off to Bolsa Bay on the southwest and to the Bolsa Chica lowlands on the southeast. Most of the occupied areas have little or low vegetation, but many of the squirrels at the eastern end of the study area were found among Brewer's saltbush (*Atriplex lentiformis* ssp. *breweri*) and other bushes.

## DISCUSSION

California ground squirrels are widely distributed in the study area, primarily in areas that have either been subject to considerable pedestrian traffic (i.e., southwestern and southeastern edges of the lower mesa, southern edge of the upper mesa) or adjacent to the proposed development area on the upper mesa (i.e., the break between the upper and lower mesas). Since burrowing owl use of potential habitat could be limited by high levels of pedestrian traffic, efforts to mitigate for potential impacts to burrowing owl habitat through habitat conservation should consider the ultimate locations of trails and other high levels of human activity.

Therefore, the best way to offset potential impacts to burrowing owl habitat would be to enhance owl habitat suitability somewhere on the lower mesa where human disturbance could be managed. Under current conditions, the best place for owl mitigation would be near the middle of the mesa, farthest from human disturbance and in an area affording maximum visibility for owls. If there is ultimately a desire to have pedestrian access to most of the lower mesa, an alternative owl mitigation area could be established in the vicinity of the heronry at the old gun club site, where at least seasonal closures are anticipated.

Creation of a series of low berms and mounds would likely result in additional ground squirrel colonization and might lead to at least occasional use by burrowing owls as well. This topography could include features that are similar to those where LSA observed wintering burrowing owls in 2001/2002 and 2002/2003, which were also artificially created.

Sincerely,

LSA ASSOCIATES, INC.

*Art Hennighausen* for

Richard Erickson  
Associate/Biologist

cc: Teresa Henry  
Ed Mountford

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FIGURE 1

RECEIVED  
South Coast Region

JUN 15 2004

Bela Chou Mow  
CALIFORNIA  
COASTAL COMMISSION California Ground Squirrel Locations, June, 2001

CALIFORNIA COASTAL COMMISSION

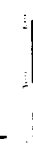
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Aerial Photo Source: FORNIA  
California Ground Squirrel Locations, 2001, California Data

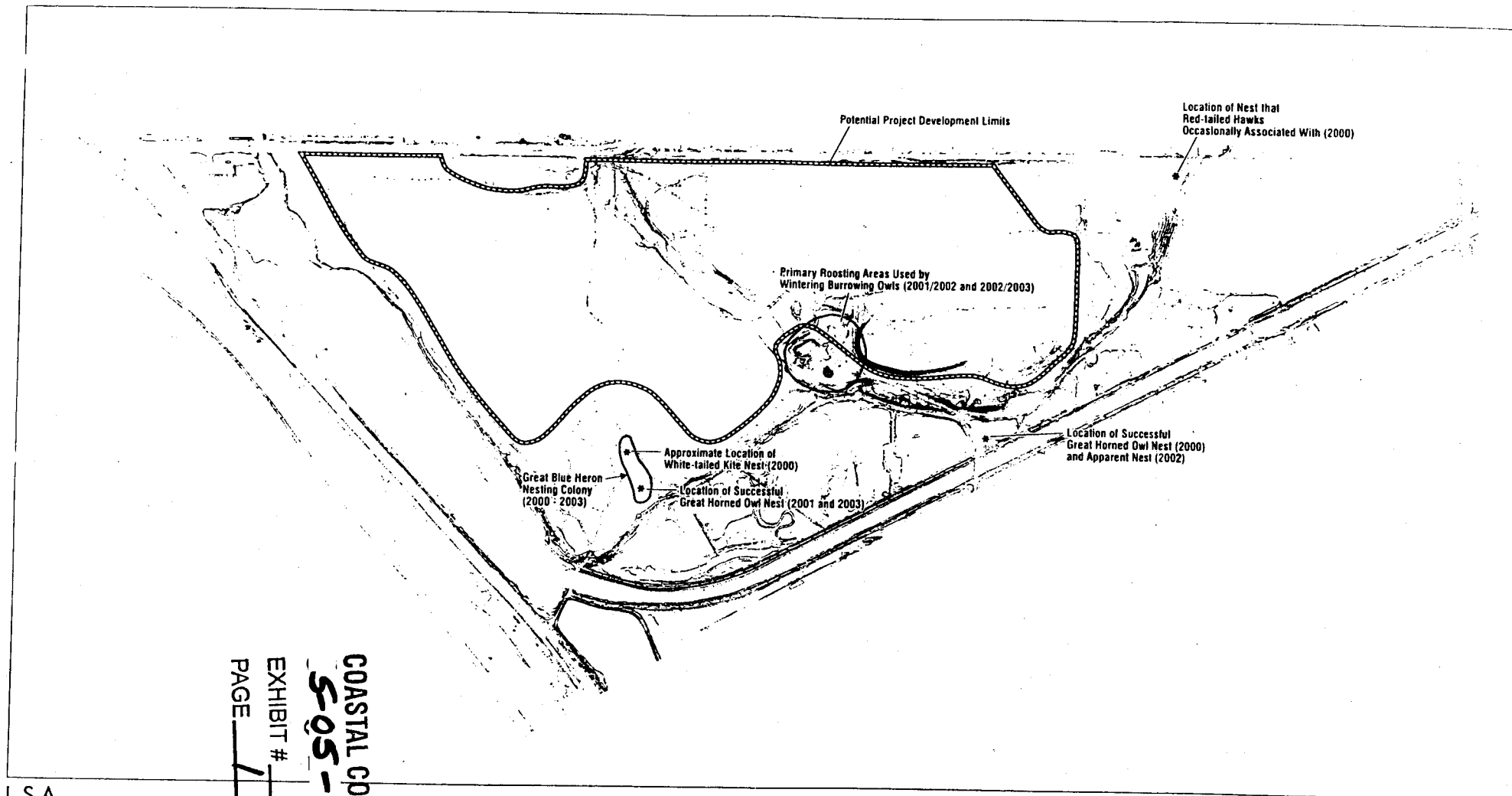
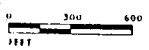


FIGURE 1

LSA



1: JIS11930-G1 Heron & Raptor Locations.cdr (9/10/03)

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Bolsa Chica ESHA  
 Heron and Raptor Locations, 2000 - 2003

## MEMORANDUM

DATE: December 1, 2004

TO: John Dixon

FROM: Richard Erickson and Art Homrighausen *AE*

SUBJECT: Documentation of Burrowing Owl Use of the Bolsa Chica Mesa

We have compiled all of our Bolsa Chica burrowing owl observations on the attached table. Field notes for each of the survey dates shown on the table are also attached. The attached map shows the locations of all of our observations. As stated in our memorandum of November 17, 2004, all recurring (i.e., multiple) observations took place at the three points (B, C, and D) that define the polygon depicting the primary use area. All other direct observations were single event occurrences, and two of these (E and F) were either within or immediately adjacent to the primary use area. It should be noted that the first observation (A), at a location well outside of this polygon, occurred more than three years ago at a burrow that was obviously abandoned (spider webs and debris in burrow entrance) in November 2001; this exceeds the Burrowing Owl Consortium criterion for consideration of a burrow as "occupied." Therefore, while we still disagree with the ESHA designation for this species, we believe that the triangular polygon shown in our memorandum of November 17, 2004, and on the attached figure, is the most appropriate delineation if an ESHA designation is to be made.

## Attachments

cc: Ed Mountford  
Teresa Henry

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**Burrowing Owl (*Athene cunicularia*) Observations on the Bolsa Chica Mesa**

Date	Observation	Observer	Map Location
October 17, 2001	none	Kimberly Peterson	
October 29, 2001	one bird flushed from burrow	Kimberly Peterson	A
November 2, 2001	fresh pellet found; no bird observed	Richard Erickson	A
November 15, 2001	original burrow now obviously abandoned; fresh pellet found at new burrow	Richard Erickson	B
November 30, 2001	pellet and blackbird remains found	Richard Erickson	B
December 12, 2001	one seen	Richard Erickson	C, D
December 31, 2001	one seen	Micaele Maddison	E, F
January 16, 2002	two present: one seen, another heard simultaneously, not together	Richard Erickson	B, C
January 30, 2002	two heard simultaneously, not together	Richard Erickson	B, C
February 27, 2002	none	Kimberly Peterson	
March 8, 2002	apparent burrow and scat found	Kimberly Peterson	C
March 18, 2002	one seen	Kimberly Peterson	C
April 25, 2002	none	Kimberly Peterson	
October 18, 2002	none	Kimberly Peterson	
November 13, 2002	one heard	Richard Erickson	D
December 30, 2002	none	Richard Erickson	
January 14, 2003	none	Kimberly Peterson	
February 7, 2003	one seen	Richard Erickson	C
February 28, 2003	none	Micaele Maddison	
March 20, 2003	none	Micaele Maddison	
April 22, 2003	none	Micaele Maddison	

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OF

# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date October 17, 2001

Weather Complete marine layer, approx. 68°F, no wind

Time 0800-1030

<u>Species</u>		<u>Comments</u>
Red-tailed hawk	3	one in Eucs near gun club, one perched on old Euc scag, one on fence adjacent to Warner pond
Coopers hawk	1	in Eucs adjacent to Wintersberg channel
Turkey vulture	2	(soaring over site)
Peregrine falcon	1	adult, soaring over mesa
Northern harrier	3	females, one perched and two soaring over mesa
Snowy egret	1	in Warner pond
Great egret	1	in Warner pond
Great blue heron	1	flying over site
Seagull	5	flying over site
Common raven	1	
American crow	56	approximately
Northern flicker	3	one in Eucs adjacent to Wintersberg channel and two in Eucs near the gun club
Western meadowlark	4	on mesa
Mourning dove	25	approximately
Rock dove	11	on power lines behind archeology trailers
Brewer's blackbird	16	approximately
House finch	51	approximately
Song sparrow	2	
White crowned sparrow	21	
House wren	3	in Eucs adjacent to Wintersberg channel
Savannah sparrow	1	on lower mesa
Black phoebe	2	in Eucs near gun club
California towhee	3	
American goldfinch	10	approximately
Anna's hummingbird	6	in Eucs near gun club
Costa's hummingbird	1	
Beechey's ground squirrel	6	
Coyote scat		
Monarch butterfly	2	in Eucs near gun club

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# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date October 29, 2001

Weather Variable high clouds with approx. 20% cover, approx. 72°F, no wind

Time 0910-1215

<u>Species</u>		<u>Comments</u>
Red-tailed hawk	3	one near gun club, one perched on old Euc. Scag, one soaring over mesa
Coopers hawk	1	in Eucs adjacent to Wintersberg channel
Turkey vulture	4	(soaring over site)
Peregrine falcon	1	adult, soaring over mesa
Northern harrier	2	females, two soaring over mesa
Burrowing owl	1	adult, burrow located on upper mesa and drawn on map
Anna's hummingbird	9	in Eucs near gun club
Belted kingfisher	1	in Eucs near gun club
Black phoebe	3	in Eucs near gun club
Say's phoebe	2	
Loggerhead shrike	1	on mesa
Belted kingfisher	1(male)	in Eucs near gun club
Great egret	1	in Warner pond
Seagull	3	flying over site
American crow	20	approximately
Northern flicker	1	in Eucs near gun club
Western meadowlark	36	approximately on mesa
Mourning dove	4	approximately
American pipit	1	in Eucs near gun club
Common yellowthroat	2	females, on mesa
Western kingbird	3	on mesa
House finch	35	approximately
Song sparrow	2	
House wren	1	in Eucs adjacent to Wintersberg channel
Savannah sparrow	5	on mesa
Beechey's ground squirrel	3	
Coyote	1	
Monarch butterfly	1	in Eucs near gun club

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R.A. Erickson  
2001

## JOURNAL

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OF

2 November

**Bolsa Chica Mesa, Huntington Beach, Orange County, California:**

1720-1845 mostly overcast, cool, light wind

Ed Mountford (client/project manager) joined me (in part) in a follow-up search for the Burrowing Owl that Kim Peterson found here earlier in the week. I found a fresh pellet, apparently from the bird (full of insect parts), but nothing else to suggest it was still present.

Northern Harrier	male, female	Red-tailed Hawk	2
Cooper's Hawk	1	American Kestrel	2

15 November

**Bolsa Chica Mesa, Huntington Beach, Orange County, California:**

1600-1730 clear, mild, still

Great Blue Heron	2	Anna's Hummingbird	2
Great Egret	1	Belted Kingfisher	1
American Wigeon	3	Black Phoebe	3
Northern Harrier	male, female	Common Raven	2
Red-shouldered Hawk	1 juv; the first in surveys conducted here since Jan 2000	European Starling	12
Red-tailed Hawk	1 ad, 2 juv	American Pipit	2
California Gull	75	"Audubon's" Warbler	2
Mourning Dove	10	Common Yellowthroat	3
[Burrowing Owl burrow used last month now obviously abandoned; a pellet, apparently of this species, was found at the entrance to another burrow nearby]		California Towhee	2
		"Western" Savannah Sparrow	5
		White-crowned Sparrow	40
		Western Meadowlark	15
		House Finch	5

30 November

**Bolsa Chica, Huntington Beach, Orange County, California:**

0700-1030 partial overcast, cold-cool, still

This morning, I walked from the end of Bolsa Chica Avenue out to the tidegates and back, and drove around the mesa a bit.

Buckeye	1	Western Pygmy Blue	1
Pied-billed Grebe	5	Ruddy Duck	5
Eared Grebe	10	Northern Harrier	3 (female, male, juv)
Western Grebe	2	Sharp-shinned Hawk	1 ad
Brown Pelican	10	Red-shouldered Hawk	1 juv
Double-crested Cormorant	2	Red-tailed Hawk	7 (pair of ad plus 1 ad & 2 juv on the mesa; 2 birds in the lowlands)
Great Blue Heron	5, 3 standing on NN	American Kestrel	2
Great Egret	4	American Coot	20
Snowy Egret	10	Killdeer	1
Turkey Vulture	1	Black-necked Stilt	3
American Wigeon	2	American Avocet	2
Gadwall	2	Greater Yellowlegs	3
Mallard	15	Willet	25
Blue-winged Teal	5 pairs	Marbled Godwit	25
Northern Shoveler	10	Least Sandpiper	3
Lesser Scaup	100	Western Sandpiper	15
Bufflehead	30		
Red-breasted Merganser	15		

30 November **Bolsa Chica, Huntington Beach, Orange County, California: cont'**  
cont'

Long-billed Dowitcher	1	House Wren	4
dowitcher sp.	10	Marsh Wren	2
Bonaparte's Gull	2	Ruby-crowned Kinglet	2
Ring-billed Gull	10	Northern Mockingbird	3
California Gull	2	<i>European Starling</i>	10
Caspian Tern	1	American Pipit	6
Forster's Tern	2	"Myrtle" Warbler	1
Mourning Dove	30	"Audubon's" Warbler	20
[Burrowing Owl a pellet, apparently of this species, and the remains of a black- bird were found at the entrance to a burrow near the site of October's siting]		Common Yellowthroat	4
Anna's Hummingbird	40	Spotted Towhee	2
Allen's Hummingbird	8	California Towhee	3
Belted Kingfisher	1	"Western" Savannah Sparrow	7
Downy Woodpecker	2	Song Sparrow	5
Northern Flicker	1	Lincoln's Sparrow	6
Black Phoebe	4	White-crowned Sparrow	60
Say's Phoebe	3	Golden-crowned Sparrow	4
Cassin's Kingbird	1	Red-winged Blackbird	60
Loggerhead Shrike	3	Western Meadowlark	100
American Crow	25	Brewer's Blackbird	40
Common Raven	2	House Finch	100
Bushtit	15	Lesser Goldfinch	7
		American Goldfinch	2
		<i>House Sparrow</i>	2
Botta Pocket Gopher	diggings	Coyote	2
California Ground Squirrel	5		

12 December **Bolsa Chica Mesa, Huntington Beach, Orange County, California:**  
1030-1230 clear, mild, light wind  
Another raptor (mostly) survey here. I spent most of my time with the owl today.

Monarch	2	Painted Lady	1
Turkey Vulture	4	Common Raven	1
Northern Harrier	3 (JJA)	Bushtit	10
Red-tailed Hawk	4 (JJAA)	American Pipit	8
American Kestrel	1 female	"Audubon's" Warbler	5
Peregrine Falcon	adult, calling	Spotted Towhee	1
<b>Burrowing Owl</b>	1	"Western" Savannah Sparrow	2
Anna's Hummingbird	1	White-crowned Sparrow	2
Northern Flicker	1	Red-winged Blackbird	1
Black Phoebe	1	blackbird sp.	75
Say's Phoebe	1	House Finch	40
American Crow	2		
California Ground Squirrel	1		

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Coyote 1

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**Richard Erickson**

---

**From:** Micaele Maddison  
**Sent:** Wednesday, January 02, 2002 9:27 AM  
**To:** Richard Erickson  
**Subject:** HSH930

Hi Dick,  
Michael and I visited Bolsa Chica on 12/31/01 from 9:45 a.m. until 11:25 a.m. The weather was overcast and cloudy and the roads were very slick on site.

We saw on site:  
several flocks of House finches, white crowned sparrows, western meadowlarks, European starlings.  
2 Anna's hummingbirds, 2 American crows, 1 common raven, 1 great egret, 1 mourning dove, 3 great blue herons, 1 flycatcher (unidentified)

For raptors we observed:  
6 northern harriers, 2 red-tailed hawks, 3 American kestrels and 1 burrowing owl.

The burrowing owl was observed in the bowl area adjacent to the wetland. It was flushed and it flew approximately 40 feet northeast where it settled in the mustard within another portion of the bowl area. We didn't pursue the burrowing owl further for fear of harassing it.

If you have any questions, or require clarification, please let me know. If you would like me to go out there next field visit, please let me know also.

Cheers,  
**Micaele Maddison**  
Assistant Project Manager/Biologist  
LSA Associates, Inc.  
Phone: (949) 553-0666  
Fax: (949) 553-8076

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1/15/2002

16 January **Bolsa Chica Mesa, Huntington Beach, Orange County, California:**  
1520-1750 partially cloudy, cool, light wind  
The Burrowing Owl situation got a little more complicated today.

Double-crested Cormorant	1		
Great Blue Heron	6, 2 pairs on NN	Black Phoebe	2
Great Egret	1	Say's Phoebe	2
Black-crowned Night-Heron	1	Loggerhead Shrike	2
White-tailed Kite	pair	Common Raven	2
Northern Harrier	3 (MJU)	Hermit Thrush	1
Red-tailed Hawk	3 (JJJ)	<i>European Starling</i>	20
American Kestrel	1 male	American Pipit	1
Killdeer	1	"Audubon's" Warbler	2
Marbled Godwit	1	Common Yellowthroat	1
California Gull	40	"Western" Savannah Sparrow	15
<i>Feral Pigeon</i>	10	White-crowned Sparrow	10
Mourning Dove	5	Red-winged Blackbird	1
<b>Burrowing Owl</b>	2, apparently not paired	Western Meadowlark	10
Anna's Hummingbird	3	House Finch	165
Audubon's Cottontail	1	Coyote	3
California Ground Squirrel	8		

30 January **Bolsa Chica Mesa, Huntington Beach, Orange County, California:**  
1620-1800 clear, cool - cold, still - light wind  
Highlights of another raptor survey here (without binoculars!):

Great Blue Heron	8+ at N colony, lots of displays and other activity	Red-tailed Hawk	3
Northern Harrier	2 brown	American Kestrel	2
Sharp-shinned Hawk	1	<b>Burrowing Owl</b>	2, not paired?
		Coyote	1

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# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date February 27, 2002

Weather Overcast/foggy with approx. 20% cover, approx. 68°F, light breeze

Time 0900-1145

<u>Species</u>		<u>Comments</u>
Great blue heron	10	standing on nests near gun club
Red-tailed hawk	3	two near gun club, one perched on old Euc. snag, one soaring over mesa
American kestrel	1	on snag
Turkey vulture	1	(soaring over site)
White-tailed kite	1	on tree tobacco near Warner pond
Northern harrier	1	females, soaring over mesa
Anna's hummingbird	7	in Eucs near gun club and on mesa on tree tobacco
Nuttall's woodpecker	1	in Eucs near gun club
Black phoebe	1	in Eucs near gun club
Say's phoebe	1	
Loggerhead shrike	1	on mesa
Great egret	4	on mesa
Seagull	1	flying over site
American crow	12	approximately
Northern flicker	1	in Eucs near gun club
Western meadowlark	16	approximately on mesa
Rock dove	14	on powerlines near trailer
Mourning dove	4	
American pipit	1	in Eucs near gun club
Common yellowthroat	3	
Cassin's kingbird	1	on mesa
Bushtit	10	approximately, in Eucs near gun club
House finch	14	approximately
Song sparrow	2	
House wren	1	in Eucs adjacent to Wintersberg channel
Savannah sparrow	4	on mesa
Beechey's ground squirrel	6	
San Diego black-tailed jackrabbit	1	
Audubon's cottontail	4	
Coyote scat		
Monarch butterfly	1	in Eucs near gun club

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# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date March 8, 2002

Weather Mostly sunny with approx. 10% cloud cover, approx. 60°F, light breeze

Time 0710-1030

<u>Species</u>		<u>Comments</u>
Great blue heron	9	4 pair near gun club sitting on nests
	8	foraging on mesa
Red-tailed hawk	4	two near gun club, one perched on old euc snag, one soaring over mesa
Cooper's hawk	1	flying over mesa
American kestrel	1	foraging over mesa
Turkey vulture	2	soaring over site
White-tailed kite	2	on tree tobacco near Warner pond, soaring over mesa
Northern harrier	1	female, soaring over mesa
Peregrine falcon	1	soaring over mesa
Ferruginous hawk	2	soaring over mesa
Seagull sp?	3	flying over mesa
Anna's hummingbird	4	in eucs near gun club and on mesa on tree tobacco
Nuttall's woodpecker	1	in eucs near gun club
Black phoebe	1	in eucs near gun club
Say's phoebe	1	on mesa
Burrowing owl	1	in depression basin area/possibly located burrow/scat
Great egret	4	foraging on mesa
Seagull	3	flying over site
American crow	35	approximately
Northern flicker	1	in eucs near gun club
Western meadowlark	5	approximately on mesa
European starling	17	foraging on mesa
Rock dove	12	flying over site
Mourning dove	6	flying over mesa, in eucs near gun club
Lesser goldfinch	2	pair, on mesa
American goldfinch	5	in eucs near gun club
Audubon's warbler	2	on mulefat in depression basin
Common yellowthroat	2	in eucs near gun club
Cassin's kingbird	1	on mesa
Bushtit	11	approximately, in eucs adjacent to Wintersberg channel
House finch	14	approximately
White-crowned sparrow	1	on mesa
House finch	32	approximately, on mesa
House wren	1	on mesa
Savannah sparrow	5	on mesa
Beechey's ground squirrel	9	approximately
Audubon's cottontail	4	
Coyote	scat	
Domestic dog	6	
Skunk		
Gopher		
Monarch butterfly	1	in Eucs near gun club

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# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date March 18, 2002

Weather Clear, approx. 60°F, gusty winds

Time 0800-1100

<u>Species</u>		<u>Comments</u>
Great blue heron	13	5 foraging on lower mesa, 8 standing on nests near gun club
Red-tailed hawk		one near gun club, one perched on old euc snag, one soaring over mesa
Cooper's hawk	1	in eucs near gun club
Peregrine falcon	1	over mesa
American kestrel	2	in eucs near Wintersberg channel, one flying over mesa
Burrowing owl	1	on mesa
Turkey vulture	2	(soaring over site)
Northern harrier	3	two of which were jostling over the mesa
Anna's hummingbird	6	3 in Eucs near gun club, 1 on mesa, 2 in eucs near Wintersberg channel
Allen's hummingbird	1	in eucs near gun club
Nuttall's woodpecker	1	in eucs near gun club
Black phoebe	2	in eucs near Wintersberg channel
Say's phoebe	2	on mesa
Loggerhead shrike	1	on mesa
Great egret	7	foraging on mesa
Seagull sp?	3	flying over site
American crow	12	approximately
Northern flicker	3	1 in eucs near gun club, 2 in eucs near Wintersberg channel
Western meadowlark	8	approximately on mesa
Rock dove	2	on powerlines near trailer
Mourning dove	4	in eucs near gun club
American pipit	1	in eucs near gun club
Common yellowthroat	2	in eucs near gun club
Lesser goldfinch	6	in eucs near Wintersberg channel
Bushtit	20	approximately, in Eucs near gun club and Wintersberg channel
Northern rough-winged swallow	4	over mesa
Barn swallow	6	over mesa
Cassin's kingbird	2	on mesa
European starling	8	in palms near gun club
House finch	18	approximately
Song sparrow	5	
House wren	2	in Eucs adjacent to Wintersberg channel
Savannah sparrow	4	on mesa
White-crowned sparrow	17	in eucs near Wintersberg channel and on mesa
Beechey's ground squirrel	7	
San Diego black-tailed jackrabbit	1	
Audubon's cottontail	5	
Coyote	2	on mesa

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# BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date April 25, 2002

Weather Partly cloudy (approx. 30% cover), 60°F, gusty winds

Time 1815-2020

<u>Species</u>		<u>Comments</u>
Great blue heron	7	3 foraging on lower mesa, 4 standing on nests near gun club
Red-tailed hawk	2	over mesa
Northern harrier	2	over mesa
Great horned owl	2	in Eucs near gun club
American white pelican	2	flying over site
Caspian tern	2	flying over mesa
Mallard	2	flying over mesa
Killdeer	1	on mesa
Anna's hummingbird	3	3 in Eucs near gun club
Black phoebe	2	in Eucs near Wintersberg channel
Seagull sp?	2	flying over site
American crow	3	over mesa
Northern flicker	1	1 in Eucs near gun club, channel
Western meadowlark	10	approximately on mesa
Mourning dove	4	in Eucs near gun club
Lesser goldfinch	1	in Eucs near Wintersberg channel
Bushtit	20	approximately, in Eucs near gun club and Wintersberg channel
Cassin's kingbird	3	on mesa
Northern mockingbird	2	in Eucs near gun club
European starling	7	in palms near gun club
California towhee	1	in Eucs near gun club
House finch	20	approximately
House wren	1	in Eucs near gun club
White-crowned sparrow	9	in Eucs near Wintersberg channel and on mesa
Beechey's ground squirrel	3	
San Diego black-tailed jackrabbit	1	
Audubon's cottontail	3	
Coyote	Scat	

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# BOLSA CHICA RAPTOR SURVEY

**Kimberly Peterson**

**Date** October 18, 2002

**Weather** Cool, 100% marine layer temperature 69°F

**Time** 0745-1000

## Observed at Rookery

Seagull sp.		1 soaring over
Red-tailed hawk		2 adults in rookery (one with mottled chest and slight belly band)
Coopers hawk		1 adult
Anna's hummingbird		2
Mourning dove		41
American crow	3	
European starling		9 in palms near old gun club
Orange-crowned warbler		1 in eucalyptus near gun club
American goldfinch		1 (male)
Black phoebe		1

## Observed in Eucalyptus Along Wintersberg Channel

Red-tailed hawk		1 adult on scag along Wintersberg Channel
American kestrel		2 (one male, one undeterminable markings)
Black phoebe		2
House finch		3

## Observed On Mesa

Turkey vulture		1 soaring over upper mesa
Northern harrier		1 male soaring over upper and one female soaring over lower mesa
Great blue heron		2 on mesa; 1 flying over
Cattle egret		1 on mesa
Northern rough-winged swallow		4 foraging over lower mesa
Anna's hummingbird		2
Black phoebe		1
Say's phoebe		1
White-crowned sparrow		4
American crow	6	
Cassin's kingbird		2
Rock dove		31 upper mesa near trailers
House finch		6
Mourning dove		11
Audubon's cottontail	2	
Beechey's ground squirrel		burrows
Coyote		2 observed on upper mesa/scat
Monarch butterfly		2 in rookery

**COASTAL COMMISSION**

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OF

13 November **Bolsa Chica Mesa, Huntington Beach, Orange County, California:**  
1550-1750 clear, cool, light-moderate wind

Southern Alligator Lizard	2		
Double-crested Cormorant	2	Burrowing Owl	1 h.o. 1720
Great Blue Heron	1	Say's Phoebe	1
American Wigeon	16	Loggerhead Shrike	1-2
Mallard	10	European Starling	5
Northern Harrier	1 female	American Pipit	4
Red-tailed Hawk	5 adults	"Audubon's" Warbler	2
American Kestrel	1 male	California Towhee	1
Merlin	2	Savannah Sparrow	5
Black-bellied Plover	25	White-crowned Sparrow	4
Killdeer	3	Red-winged Blackbird	2
Mourning Dove	5	Western Meadowlark	2
		House Finch	25
Audubon's Cottontail	6	Coyote	2 hunting together

30 December **Bolsa Chica, Huntington Beach, Orange County, California: 1455-1750**  
mostly clear, cool, light wind Another raptor search, primarily on Bolsa Chica Mesa.

Monarch	1	Mourning Dove	15
Pacific Treefrog	5	Great Horned Owl	1-2
		Anna's Hummingbird	12
Pied-billed Grebe	1	Belted Kingfisher	1
Double-crested Cormorant	10	Downy Woodpecker	1
Great Blue Heron	2	Northern Flicker	1
Great Egret	1	Black Phoebe	3
Gadwall	2	Say's Phoebe	1
American Wigeon	20	American Crow	2
Mallard	2	Bushtit	20
Bufflehead	5	Bewick's Wren	1
Ruddy Duck	3	House Wren	4
Osprey	1 flyover at dusk	Marsh Wren	1
Northern Harrier	1 female	Hermit Thrush	1
Red-tailed Hawk	2 ad, 1 juv, 1-2 UK	Northern Mockingbird	1
American Kestrel	2	European Starling	125
Merlin	1 columbarius	American Pipit	10
American Coot	4	"Audubon's" Warbler	15
Killdeer	3	Common Yellowthroat	5
Greater Yellowlegs	1	California Towhee	5
Willet	3	White-crowned Sparrow	65
Marbled Godwit	3	Golden-crowned Sparrow	18
Spotted Sandpiper	1	Oregon Junco	1
Least Sandpiper	1	Western Meadowlark	25
dowitcher sp.	40	Brewer's Blackbird	35
Ring-billed Gull	1	(Bullock's?) Oriole	1 h.o.
California Gull	35	House Finch	30
Western Gull	2		

Audubon's Cottontail

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## BOLSA CHICA RAPTOR SURVEY

Kimberly Peterson

Date January 14, 2003

Weather Cool, 100% marine layer temperature 54°F

Time 0705-0920

### Observed at Rookery

Anna's hummingbird	3
Mourning dove	4
Red-tailed hawk	2 (perched together on snag)
House finch	5
Canada goose	heard only flying south over site
American kestrel	1 (male)
Lawrence's goldfinch	4
American goldfinch	3
Orange-crowned warbler	1 (male)
American pipit	9 (in flock)

### Observed in Eucalyptus Along Wintersberg Channel

Anna's hummingbird	1
Black phoebe	2
House finch	14
American kestrel	1 (female)
Cooper's hawk	1

### Observed In Eucalyptus Near Condominiums

Cooper's hawk	1
---------------	---

### Observed On Upper Mesa

Anna's hummingbird	3
White-crowned sparrow	18
California towhee	2
American pipit	12
Red-tailed hawk	1 (soaring over mesa)
House finch	23
Say's phoebe	1
Golden-crowned sparrow	2
Song sparrow	3
American kestrel	1 (male)
Western meadowlark	4
European starling	3

### Observed On Lower Mesa

White-crowned sparrow	9
Mourning dove	3
California towhee	2
Black phoebe	2
House finch	4
Great blue heron	2 (foraging on mesa)
Song sparrow	6
Western meadowlark	3
Northern harrier	1 (female)

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OF

R.A. Erickson  
2003

JOURNAL

7 February

**Bolsa Chica Mesa, Huntington Beach, Orange County, California:**

1630-1810 mostly overcast, cool, light wind

The usual raptor monitoring, with an emphasis on confirming Burrowing Owl presence.

Great Blue Heron	10	Anna's Hummingbird	2
4 standing in nesting colony		Northern Flicker	1
Great Egret	2	Black Phoebe	1
Snowy Egret	1	Say's Phoebe	3
American Wigeon	2	<b>Loggerhead Shrike</b>	1, lower mesa
Red-tailed Hawk	4-5 ad, 1 UK	American Crow	15
American Kestrel	male, gun club	American Pipit	150
Killdeer	4	California Towhee	1
California Gull	1500 flying out to sea	Savannah Sparrow	2
Great Horned Owl	1, calling at gun club	White-crowned Sparrow	25
<b>Burrowing Owl</b>	1, borrow area	Western Meadowlark	25
		House Finch	5
Audubon's Cottontail	5	Coyote	1
California Ground Squirrel	1		

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Zenithus Nicole Maddis

Date: 2/28/03 Time: 8:22am-10:30am obs no. 1751990

upper mesa 1 N. Harrier 0 + 2 ♀

Notes: House finch 0 50  
European starling 3  
American crow 4  
Savannah sparrow 5  
Song sparrow 125  
Red dove 2  
W. crowned sparrow 120  
mourning dove 1  
red winged blackbirds 20 100  
w. meadowlark 10

lower mesa

great egret 1 Barn swallow 1  
red winged blackbird 75 Savannah sparrow 4  
Anna's hummingbird 3 ~~Star~~ phoebe 1  
Great blue heron 1 mourning dove 2

w. meadowlark 5  
eucalyptus grove  
coopers hawk 1 adult, 1 juvenile  
Anna's hummingbird 2  
25 crows  
European starlings 30 House finch 10  
song sparrow 2  
N. Flicker 2 W. crowned sparrow  
yellow rumped warbler 1 Cal. towhee 2  
Gonolobus Ruby crowned kinglet 1  
crows 6

red tailed hawk 12  
Great blue heron 1  
Common Raven 2  
mourning dove 1  
European starlings 40  
COASTAL COMMISSION  
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4/22/63

HSH 930

7:00am - 10:15

scattered clouds, breeze from south

mm + KR

28.3 miles

UPPER MESA

GBHe 11

BPh 1

WCSp 1

Mall 11

MoDo 11

Hosp 1111

HoFi 1111

SoSp 1

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CISw 111

AmCr 1

Gull 11

EuSt 111111

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LOWER MESA

RWBI 111111

MoFi 1111

Mall 111111

Hosp 11

AnHu 1

ESp 1

EuSt 11111111

Gull 1

BSW 1

CISw 111

MoDo 111

AmCr 1111

GRASS CLUB

AmCr 1111

HuVi 1

MoDo 11

Mall 1

Hosp 1

Bush 11

RTHal

Ca Tol

basw 1

GBHe 1111

(1 on nest)

EV. ESHA

Nomo 1

Bush 1111

Mall 11

HoFi 1

Ca Tol 11

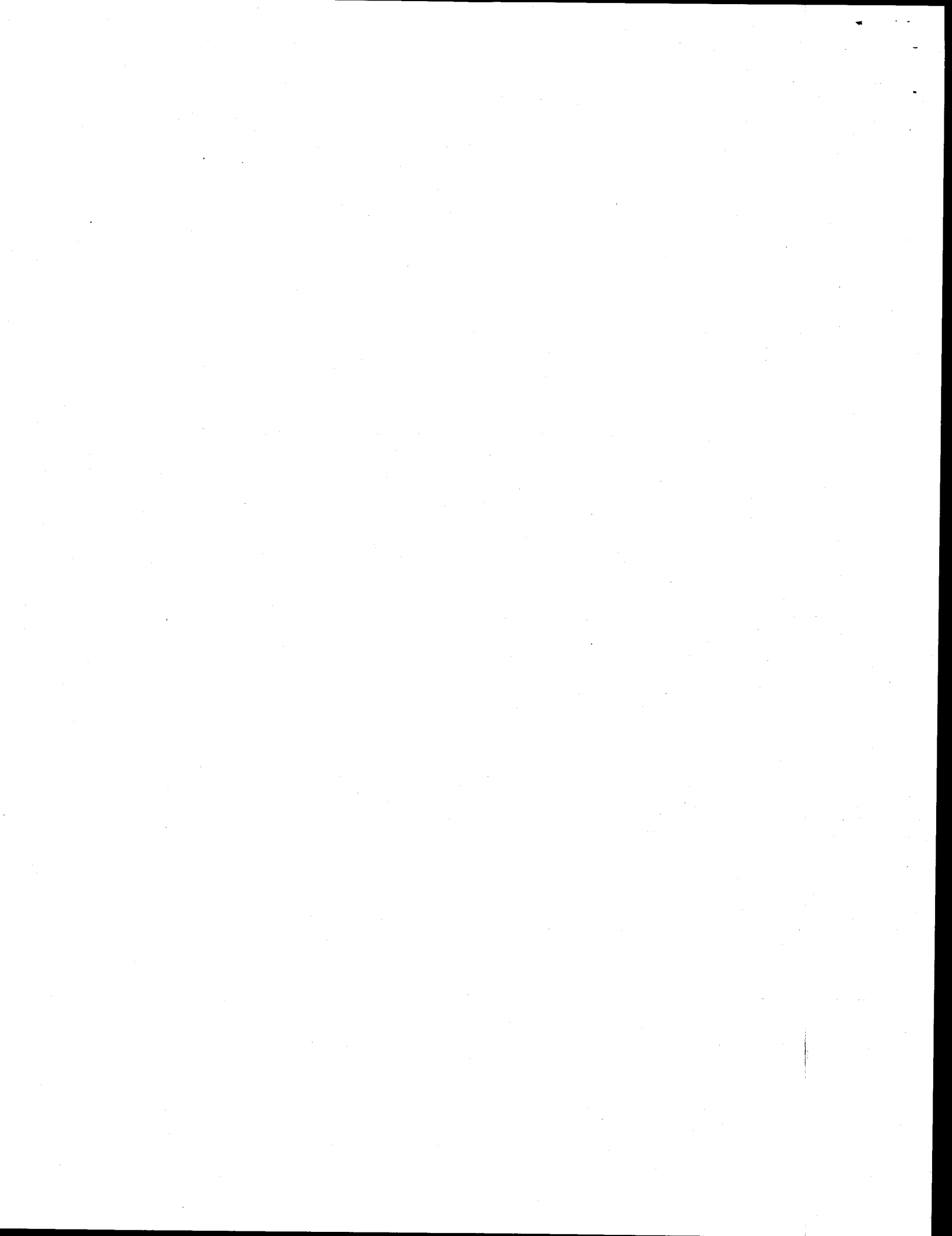
AmCr 1111

AnHu 111111

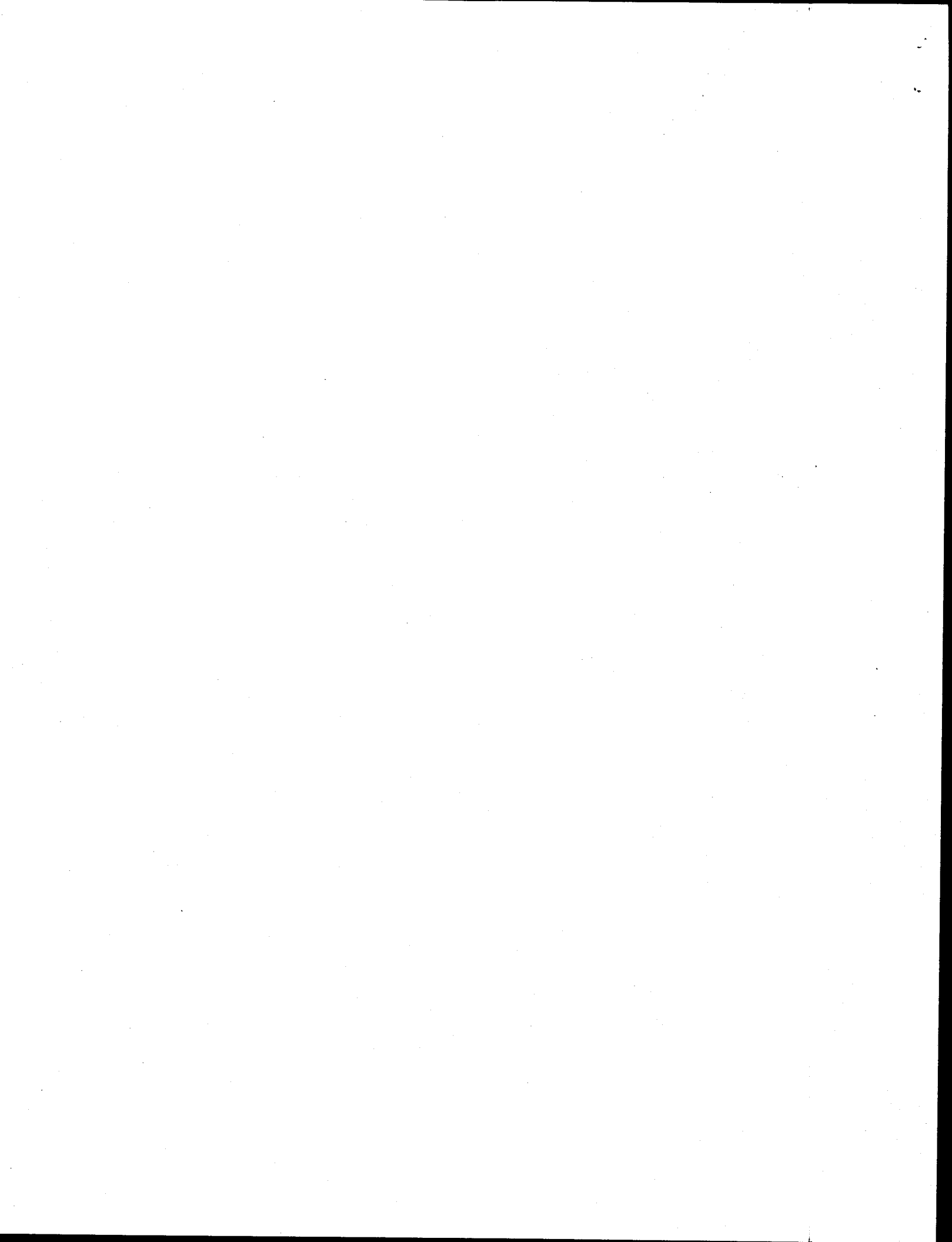
Tob 1

SoSp 1

CISw 11







R.A. Erickson field notes Dec 2001 - Jan 2002

Bolso Chico  
nest  
12 Dec 2001

1030-1230  
clear, mild,  
light wind

PeFo d calling  
RVU III  
RTHO JJA  
AmP: III  
SvS II  
HOC 40  
AmH I  
SPT I  
WCS II  
SOPH I  
NOFI I  
NoH JJA  
AmW III  
RWBI I  
Blackbird sp 75  
COR I  
AmCr II  
BIPh I  
Buow I  
AmKa I  
Bush 10

CGS I  
Coyote I

PLody I  
Monarch II

16 Jan 2002 Bolso Chico nest  
1520-1750

partially cloudy, cool, light wind

CoR II  
AmH III  
AmP: I  
HOF: 20, 10, 10, 125  
WCS 10

HoTh I  
BCNH I  
mbo I  
Kill I

GBHe III

2 pairs on NW

BuOw II

us-21 spots 44 →

RTH II

JJJA

Wep: 10

BIPh II

AmW II

SvS II

NoH III

sum

Weme 10

pair

WTK: II

DCCo I

MDDo III

Eust 10, 10

SvS III III III

GrEp I

LoSt II

CoVe I

RWB I

AmKe I

CoGu 40

Act I

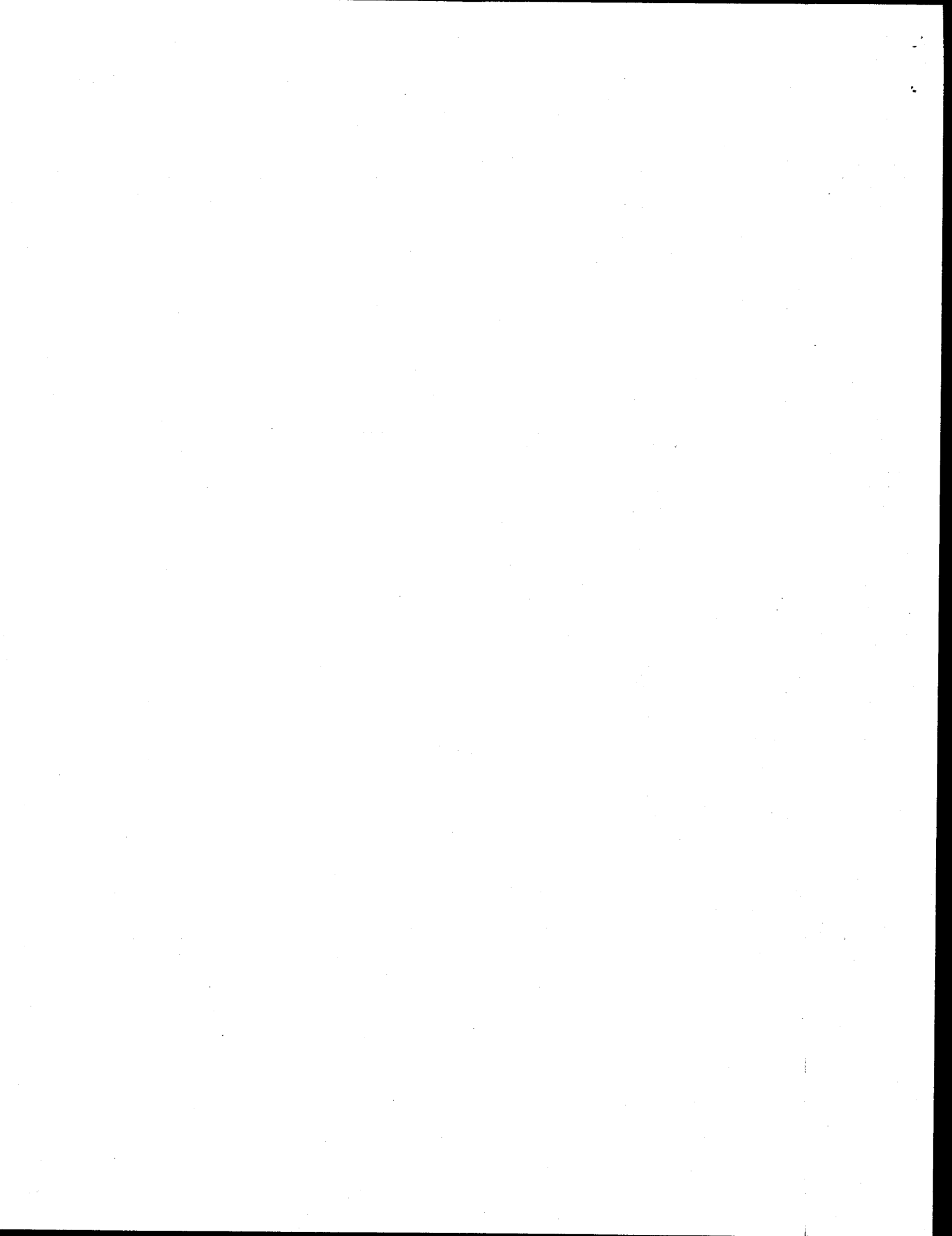
CGS III

Coyote III

off called  
1725, flew, 1735, flew

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R.A. Erickson field notes Nov 2002 - Feb 2003

clear cool mod. wind

no. 1720  
in response to  
my whistles.

ACT I  
SAL II  
Coyote II foraging together

Bolga Ch: 1630-  
7 Feb 2003 mostly overcast, cool, light wind

RTH, AAUAA  
BIPH. 1  
S<sub>2</sub> Ph. 111  
WCS<sub>2</sub> 15, 10  
Am<sub>2</sub> 15  
Weme 25  
Am<sub>2</sub> 100, 50  
Hof. 111  
GBHP 111 in calm 111  
C<sub>2</sub> G<sub>2</sub> 111 25, 50, 65, 100, 150  
Buon 1  
NoFl 1  
Amw. 11  
GrEg 11  
SnEg 1  
Co<sub>2</sub> 1  
AmH<sub>2</sub> 11  
AmK<sub>2</sub> 1 ♂ gun club  
GROW 1 calling from gun club at 1740  
CoTo 11  
K: 11 1111

Coyote !

EUSI 4060,25  
WCS, KISS, 20,5, 15,10  
RTH, 200, 1-2 uk

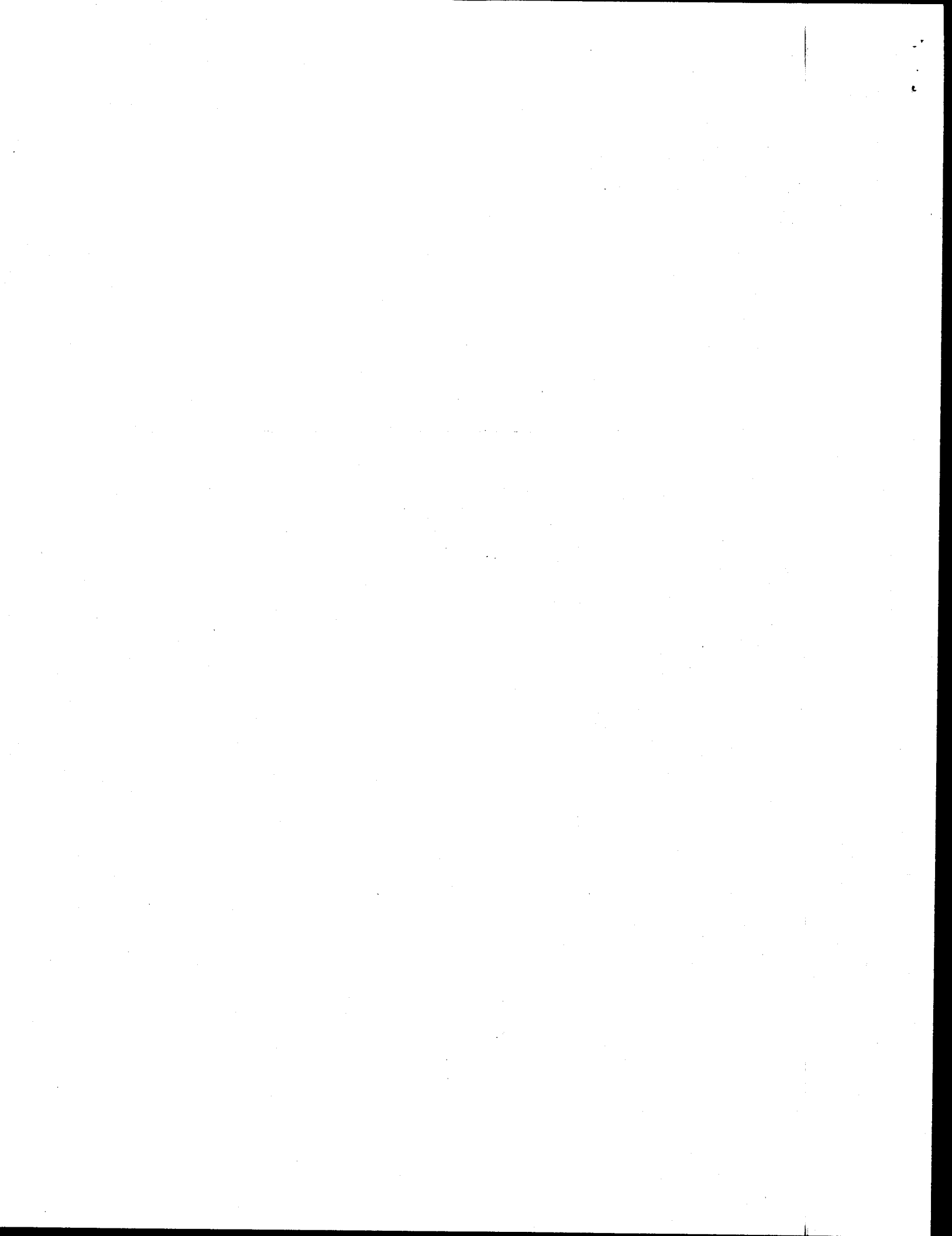
H.F. 10.5  
H.F. 10.5  
M.R. 10.5  
Am.C. 11  
A.P. 11 11  
Grep.  
N.H. 10  
C.G. 10.20  
Ne.G.  
A.P. 7.7  
A.V. 10.5  
B.E. 10.5  
B.F. 11  
R.B.  
M.O. 1  
G.S. 11 11 11  
O.S. 1  
B.W. 1  
(B.) O. 1 h.o.  
N.F. 1  
Howr 11  
Am.W. 11 11  
S.S. 1  
M=Go 11  
P.B. 1  
A=C 11  
down 20.20  
R.D. 11  
M. 11  
  
M. 1  
Coyote 1

Cow 2.1  
Gadwall  
Will 11  
Anke 11  
Rok. 8  
msur  
Cape M  
Shaw 1  
Buff 5  
Sph 1  
HeTh  
DCC 1  
Grte  
Geo  
GBE 11  
J.Mo 1  
Bush 20  
GHWH.a  
GTOTH  
Apr at our mess at dusk  
Kill 1

Went on club

**COASTAL COMMISSION**

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California Cultural Resource Preservation Alliance, Inc.

P.O. Box 54132  
Irvine, CA 92619-4132

An alliance of American Indian and scientific communities working for  
the preservation of archaeological sites and other cultural resources.

March 20, 2005

Attention: Teresa Henry  
California Coastal Commission  
200 OceanGate, Suite 1000  
Long Beach, CA 90802-4302

Re: Subject: New Brightwater Development Proposal for Bolsa Chica Site, Application, 5-05-020

Honorable Commissioners:

We are deeply saddened to learn that the "multiple sub-terrenean pit houses" found at the base of the midden at the Bolsa Chica cogged stone site were destroyed subsequent to your October 2004 meeting. We have never seen such a prolonged and determined effort to destroy a site. It is like a scorched earth policy, and the developer does not even have approval for development. (See the attached letter for the history of site destruction.)

No truly adequate mitigation is possible if indeed the site is totally destroyed. However, **we support the Coastal Commission Staff's recommendation for a 100-meter setback** from the edge of the bluff which will put a significant portion of the location of ORA-83 into open space. This will at least provide a place where the California Indian descendants can honor the ancestors and renew their cultural and spiritual well-being.

In addition, the purpose of the laws requiring data recovery as mitigation for the destruction of archaeological sites is to provide for the "inspiration and benefit" of the public. Therefore, **mitigation measures should include** requirements for the public to receive these benefits in the form of **published scientific reports of the archaeological findings, and the preparation of non-technical reports with graphics and photos that will be distributed to tribal organizations, schools and libraries.**

**Mitigation measures must also include provisions for the curation of the archaeological collections (except those that should be repatriated in accordance with state and federal laws) and field notes in a repository that meets the State of California Guidelines for the Curation of Archaeological Collections, where they will be available to researchers, tribal organizations, and the public.**

It is our understanding that the developer has terminated their relationship with SRI, the Cultural Resource Management (CRM) company responsible for archaeological work at Bolsa Chica for the last 20 years or so. If this is the case, we strongly recommend that the developer be required to hire a reputable CRM company to assess the current condition of the sites recorded in the area and complete analysis, curation and scientific reports on this 20 years of unpublished archaeological work. If you wish, we can suggest several firms that may be interested in bidding on this work.

If you have any questions, please do not hesitate to call or email me at (323) 343-2440 [pmartz@calstatela.edu](mailto:pmartz@calstatela.edu) or our Secretary, Virginia Bickford, at [vbickf123@aol.com](mailto:vbickf123@aol.com) (562) 493-5169.

Sincerely,

Patricia Martz, Ph.D.  
President, CCRPA  
On behalf of the Board of Directors

5-05-020  
EX. 18 p. 1 of 1

Teresa Henry  
California Coastal Commission  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302

Fax: (562) 590-5084

March 20, 2005.

Miiyu Ms. Henry

I am writing this letter to draw your attention to the upper mesa at Bolsa Chica known as ORA-83. This site has importance to many people of the area but especially to the indigenous Californians. Our communities consider that all land is sacred because of the events that occurred there and the people who have lived there in the past. In the present time our communities gather at Bolsa Chica's upper and lower mesas. One of the larger events is called the Ancestor Walk. My mother started the walk eight years ago but as a child I remember her taking us to the area. It was a hunting club then and we did not have access but we always went to Tin Can Beach and looked across Pacific Coast Highway. In this way she let me know that it was a special place. I am deeply saddened at the loss and destruction that has occurred for the sake of development in this area. Our people need continued access to the upper and lower mesas to continue our cultural traditions and maintain our heritage. Additional loss of land also effects the hawks, rabbits, owls, great blue heron, osprey, songbirds, snake, coyote and many other life forms that are important to our culture's existence.

Please support the Coastal Commission staff recommendations for the greatest open space possible. I also would like to see signs and interpretive information that is dedicated to the unique cultural history highlighting the diversity of California's people, specifically honoring these early ancestors and facilitating educational information for all.

Neshkinukat



Rhonda Robles  
Acjachemem Nation  
Ancestor Walk Coordinator

5-05-020

Ex. 19 p. 1 of 1

## 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: Teresa Henry

SUBJECT: Brightwater Development Proposal

DATE: March 28, 2005

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## Documents reviewed:

1. Bloom, P.H. (Santa Cruz Predatory Bird Research Group). April 15, 1982. Raptor inventory and habitat assessment for the Bolsa Chica area, Orange County, California. A report to the U.S. Fish and Wildlife Service, Laguna Niguel, California.
2. Bloom, P.H. (Raptor Biologist). March 21, 2000. Letter to J. Dixon (CCC) regarding the importance of Bolsa Chica mesa to raptors.
3. Bloom, P.H. (Raptor Biologist). October 22, 2000. Letter to S. Hansch (CCC) regarding the effect of development alternatives on raptors at Bolsa Chica mesa. An independent review solicited by CCC, CDFG, & Hearthsides Homes.
4. Bloom, P.H. (Raptor Biologist). June 5, 2002. Letter to J. Dixon (CCC) regarding white-tailed kites and golf courses.
5. California Department of Fish and Game (CDFG). June 3, 1982. Environmentally sensitive areas at Bolsa Chica.
6. CDFG. April 8, 1985. Department of Fish and Game findings and recommendations for the maintenance, restoration, and enhancement of wetlands and non-wetland environmentally sensitive habitat areas at Bolsa Chica, Orange County.
7. Findlay, C. S. and J. Houlihan. 1997. Anthropogenic correlates of species richness in southeastern Ontario wetlands. Conservation Biology 11:1000-1009.
8. Findlay, C.S. (University of Ottawa). No date (received at CCC February 8, 2000). Letter to CCC regarding buffers for wetlands and other sensitive habitats at Bolsa Chica.

9. Froke, J. B. October 10, 2002. Conservation of white-tailed kites at Dos Pueblos golf links in Santa Barbara County, California. A report submitted to Culbertson, Adams & Associates.
10. Jurek, R. M. (CDFG). October 16, 2000. Letter to S. Hansch (CCC) regarding the effect of development alternatives on raptors at Bolsa Chica mesa. An independent review solicited by CCC, CDFG, & Hearthside Homes.
11. Holmgren, M.A. and M.L. Ball (UCSB). June 6, 2002. Letter to J. Dixon (CCC) regarding white-tailed kites and golf courses.
12. Holmgren, M.A. (UCSB). June 7, 2002. Memorandum to J. Dixon (CCC) regarding sensitivity of white-tailed kites to disturbance.
13. Homrighausen, A. and R. Erickson (LSA). November 23, 1999. Letter report to S. Rynas (CCC) re: "Buffer design for Bolsa Chica Eucalyptus ESHA."
14. LSA Associates. c. January 14, 2000. An examination of raptor flushing distances at the Bolsa Chica Eucalyptus Grove ESHA in early January, 2000. A report to Hearthside Homes.
15. Richardson, C.T. and C.K. Miller. 1997. Recommendations for protecting raptors from human disturbance. Wildlife Society Bulletin 25:634-638.
16. U. S. Fish and Wildlife Service. May 1979. U.S. Fish and Wildlife Service special report: Bolsa Chica Area. Prepared by Ecological Services, Laguna Niguel, California
17. Van Daele, L.J. and H.A. Van Daele. 1982. Factors affecting the productivity of ospreys nesting in west-central Idaho. Condor 84:292-299
18. Walton, B.J. (Santa Cruz Predatory Bird Research Group). October 16, 2000. Letter to S. Hansch (CCC) regarding the effect of development alternatives on raptors at Bolsa Chica mesa. An independent review solicited by CCC, CDFG, & Hearthside Homes.
19. White, C.M. and T.L. Thurow. 1985. Reproduction of ferruginous hawks exposed to controlled disturbance. Condor 87:14-22

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#### "Eucalyptus" Tree ESHA

Historically, the "eucalyptus tree" ESHA associated with the Bolsa Chica mesa has been considered to be the area occupied by the roughly linear grove of trees along the southern bluff of the mesa. Most of the trees grow along the base of the bluff in the lowlands. However, some grow on the mesa top near the bluff edge at various

locations. Since most of the trees are eucalyptus, the grove is often referred to as the "eucalyptus" tree ESHA. However, it is important to note the grove also includes several palm trees and pine trees that are also used by raptors and herons. None of the trees are part of a native plant community. Nevertheless, this grove of trees has been recognized as an Environmentally Sensitive Habitat Area (ESHA) for over 25 years (USFWS, 1979; CDFG 1982, 1985) because of the important ecosystem functions it provides to a suite of raptor species. The trees are used for perching, roosting, or nesting by at least 12 of the 17 species of raptors that are known to occur at Bolsa Chica.

There has been little or no discussion of the site-specific definition and delineation of this ESHA, perhaps because the intuitive and obvious approach is to define and delineate the ESHA by simply drawing a line between the outermost trees of the grove. The 1982 CDFG report defined the ESHA as "the eucalyptus grove adjacent to and on the Bolsa Chica mesa" and included a map with a rough outline of the Eucalyptus grove (which included palm trees). All subsequent maps from a variety of sources have been roughly similar. Commission staff has also created ESHA maps with the same approximate boundaries and has done so by simply connecting the outermost trees. This approach proved adequate for planning purposes until recently, but now appears insufficiently specific due to the issues raised by the applicant's proposal to discharge runoff water through buried pipes that traverse the eucalyptus grove.

The current proposal is to discharge runoff from the mesa top through a new 66-inch pipe leading to the lowlands. This would require digging a trench across the eucalyptus grove to the adjacent lowland. The corridor proposed for the pipe contains no trees, is vegetated by non-native grasses and other weedy species, and currently contains an aboveground pipeline that is part of the oil field infrastructure. In my opinion, the placement of a subterranean pipeline over a period of a few weeks in a manner that does not injure nearby trees, at a time when birds are not nesting, and utilizing Best Management Practices to prevent erosion or slope instability would not constitute a "significant disruption of habitat values" and would, therefore, pass the first test of Section 30240(a) of the Coastal Act. However, the second test of that Coastal Act section is whether the proposed use is dependent on the ESHA resource, and the installation of a pipe to convey runoff from a new residential development is clearly not so dependent. Therefore, if the ESHA is the grove of trees as defined and delineated by a single, two-dimensional polygon that encompasses all the trees, plus all the area above and below the plane created by that polygon, the pipeline installation is not an allowable use. However, if the aboveground portions of the trees themselves constitute the ESHA, then the gaps between the trees are not part of the ESHA and placement of the pipe in the identified corridor would not violate Section 30240(a). In addition, if appropriate Best Management Practices were employed during installation and if the corridor was subsequently revegetated, it is my opinion that the installation would not create "impacts which would significantly degrade" the ESHA and would be "compatible with the continuance" of the ESHA, and, therefore, would not violate Section 30240(b) of the Coastal Act either.

Is this a reasonable definition of ESHA where a grove of trees is concerned? In general, I think that it is not, but the answer is necessarily site-specific and must be based on the statutory definition of ESHA and the reason why any given area is being considered as fitting within that definition. ESHAs are defined, in part, as areas where "plant or animal life or their habitats are either rare or **especially valuable because of their special nature or role in an ecosystem**" (Cal. Pub. Res. Code § 30107.5; emphasis added). In most circumstances, the Commission would be dealing with a grove or portion of a forest where the trees were native species and were part of a natural vegetation community. In such a case, the trees would be just one element in the forest community or ecosystem and the overall system would be defined by and dependent on complex interactions among the trees, the understory plant species, physical soil characteristics, soil microbes and fungi, and the host of invertebrate and vertebrate animal species that act as pollinators, dispersal agents, parasites, herbivores, and predators, among other things. These interactions mean that such a forest community may be an ESHA not simply because a constituent species is rare, threatened or especially valuable but because the functioning forest ecosystem – plant life, animal life, and characteristics of the habitat – is necessary for the perpetuation of such special status species. In addition, the community itself, which is defined by such interactions, may be rare. A good example of both situations is native Monterey Pine forest ESHA. If only the trees were considered ESHA, myriad other "especially valuable" aspects of the ecosystem would be ignored, and as a result, the ESHA would be severely degraded by development in the gaps between those trees and eventually the trees themselves would be lost.

In the case of Brightwater, however, the eucalyptus grove has traditionally received special treatment not because it is part of such a well-integrated, holistic, native ecosystem, or because the trees in and of themselves warrant protection under the definition of ESHA, but solely because of the support those trees provide for raptors. Thus, it is ESHA because the trees constitute plant life that is especially valuable because of its role in the ecosystem, which is to provide perching, roosting, and nesting opportunities for a suite of raptor species, and the only part of the grove in which the birds perch, roost, and nest is the aboveground portion of the trees themselves. The understory, for example, does not provide such support. Nor is there the sort of system integration here that exists in the example of the Monterey Pine forest. Thus, in the unique circumstances present at Brightwater, one could argue that the area that meets the definition in Coastal Act section 30107.5 truly is just the aboveground portion of the trees themselves.

If staff chooses to recommend that the Commission consider only the aboveground portion of the trees to be ESHA, it is critically important to make the definition so narrow as only to apply to this specific site and other situations that are substantially identical in all relevant respects. To that end, I recommend that this approach only apply to non-native species or horticultural plantings where it is only the trees themselves that provide the important ecosystem functions upon which the site-specific ESHA designation is based. Furthermore, in order to comply with Section 30240(b) of the Coastal Act, no development should be allowed in the gaps between the trees that

would negatively impact existing trees, the recruitment of new trees, or the use of any of the trees by raptors or by other species upon which the ESHA designation is based. For purposes of establishing protective buffers, the ESHA boundary should be delineated with the same protocol used previously at this site, as described above.

#### Extent of the "Eucalyptus" Tree ESHA

The map in the 1982 CDFG report truncates the ESHA in a straight line that corresponds to an extension of Bolsa Chica Street. This is clearly an arbitrary man-made division that does not correspond to nature. There is no gap in the trees at that point, the trees continue as a coherent grove along the base of the mesa for several hundred feet beyond the Bolsa Chica Street line, and raptors have been observed to use those trees. Therefore, staff has included all those trees in the ESHA maps accompanying staff reports. In the 2000 and 2004 recommendations, some of the trees on the mesa top adjacent to Bolsa Chica Street were also included in the ESHA maps. Subsequent to the October 2004 hearing, the applicant argued that the latter trees were so far distant from the rest of the grove and so separated vertically that they ought not be considered part of the ESHA. Based on the relative isolation of those trees, I agreed to recommend that only the trees that were part of the coherent grove (i.e., trees in close proximity to one another) be considered as "eucalyptus" tree ESHA and altered the maps accordingly. This decision was based, in part, on the fact that trees that are part of a grove are thought to be more attractive to raptors for nesting than isolated trees because they provide a greater visual barrier for the nest. However, this spring a pair of white-tailed kites (California Fully Protected Species) have nested in one of the pine trees at the top of the bluff near Bolsa Chica Street and, according to the applicant's biologists, currently appear to be incubating eggs. Based on this "testimony" by the birds, I recommend that the cluster of three trees at the top of the bluff adjacent to the terminus of Bolsa Chica Street be considered part of the ESHA. The outline of the recommended ESHA is shown in Figure 1.

#### Protective Buffer for the "Eucalyptus" Tree ESHA

The applicant's biological consultants have pointed out that there is always an arbitrary element in assigning dimensions to protective habitat buffers or development setbacks. At one level, this is true. For example, it probably would not be possible to distinguish the different biological effects of a 100-foot buffer compared to a 110-foot buffer or those of a 300-foot buffer from a 100-meter (328-foot) buffer. We tend to choose round numbers in whatever units we are using. However, the difference between the 100-foot buffer that the applicant has suggested as being amply protective or the 150-foot minimum buffer in the current proposal<sup>1</sup> and the 100-meter buffer recommended by the

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<sup>1</sup> The applicant has formally removed the 50 feet of open space nearest the development (Fuel Modification Zone B) from the area designated as ESHA buffer because it will have a permanent irrigation system installed. Nevertheless, for purposes of this discussion, I am treating that irrigated grassland area as part of the buffer around the trees used by raptors.



wildlife agencies and by staff is not arbitrary. These large differences reflect different opinions concerning the sensitivity of raptor species to disturbance and differences in opinion concerning the acceptable risk of disturbance impacts to raptors, especially raptors that have the potential for nesting at Bolsa Chica.

In an urban setting, feasible development setbacks are probably always too small to prevent impacts to all individuals of wildlife species. For example, Findlay and Houlihan (1997) found a negative correlation between species richness in wetlands and the density of roads on land up to 2000 meters from the wetland and concluded that narrow buffer zones were unlikely to protect biodiversity. It is very unlikely that such relationships would be evident in urban areas because the potential buffer zone is already developed and the most sensitive species are already lost. The scale of disturbance and its ecological effects is irreversibly altered by urbanization. Whereas in a natural setting a 2 kilometer buffer might be measurably more protective than a buffer of one to several hundred meters, in an urban setting the maximum possible buffer is generally no more than one to several hundred meters and often less. Within the possible buffer area, the effectiveness of the wildlife buffer probably does not increase linearly with distance. Rather, the amount of protection provided by the buffer can probably be described by an S-shaped curve, increasing slowly for the first few tens of feet, then rapidly for some unknown distance that varies by species (but probably a few hundred feet) and finally slowing and approaching an asymptote at greater distances. Therefore, within that middle range of distances whether a buffer is protective is not a "yes" or "no" question, but is instead a matter of degree.

The "eucalyptus" tree ESHA is currently subject to frequent disturbance by hikers, runners, dogs, bikers, four-wheel drive enthusiasts who use the steep slopes on the upper mesa as a test track, and youthful paintball warriors who conduct their battles within the eucalyptus grove (and occasionally cut down small trees). In fact, I believe that the current types and intensities of use within and adjacent to the ESHA violate the provisions of Section 30240 of the Coastal Act. Therefore, most of the raptors that currently use the trees for perching or nesting are probably from the subset of the regional population that is relatively tolerant of such human disturbance due to some combination of genetical makeup and individual history. I think this needs to be borne in mind when assessing the results of a flushing study done by the applicant's biological consultants (LSA, 2000). They found that, when their perches were approached by a pedestrian, raptors flushed at distances that varied among species, individuals, and height of the perch. The lower the perch the sooner the birds flushed. Kestrels were most tolerant of human presence, often not flushing at all (flushing range 0 – 13 m). At the other extreme the single turkey vulture approached flushed at a distance of 70 m. White-tailed kites, which I think are a good model for setting buffer widths because they are sensitive to human intrusion in natural settings, generally flushed when approached to 30 m. Given the current level of disturbance within the ESHA, I think it is reasonable to assume that these birds are relatively tolerant of human presence and these flushing distances should be considered minimums. Less tolerant birds would flush much sooner and may currently avoid many areas in the ESHA. Jurek (2000) pointed out that, "Individuals within a species may have differing levels of response to human



activities, owing to variation in the population for tolerating unusual situations, or to differences in habituating to human activities out of past experience or upbringing. The same level of activity that would not adversely affect one of the habituated raptors might be perceived by a newly arrived individual of the same species in the ESHA to be threatening, causing the bird to not return there."

There is relatively little scientific literature regarding the effects of disturbance on raptors in natural situations and most of what is available relates to bald eagles. However, a recent review (Richardson & Miller, 1997) cites studies of flushing in response to vehicles (range: 35 – 293 m (av. min. – av. max.)) and to pedestrians (range: 40 – 466 m (av. min. – av. max.)). The pedestrian figures suggest greater sensitivity to disturbance than observed by LSA, but a different suite of species were observed in the two reports, which confounds direct comparison. However, two species were common to both reports. Merlin allowed approach all the way to the perch tree at Bolsa Chica but flushed at 17 – 180 m elsewhere. Similarly, kestrels often never flushed at Bolsa Chica (range: 0 – 13 m), whereas they flushed at approach distances of 10 – 100 m elsewhere. These data suggest that raptors that currently use the highly disturbed ESHA at Bolsa Chica are more tolerant of human presence than the average individual at less disturbed locations. The corollary is that many birds that could potentially use the ESHA may be excluded by human disturbance (cf. Jurek, 2000).

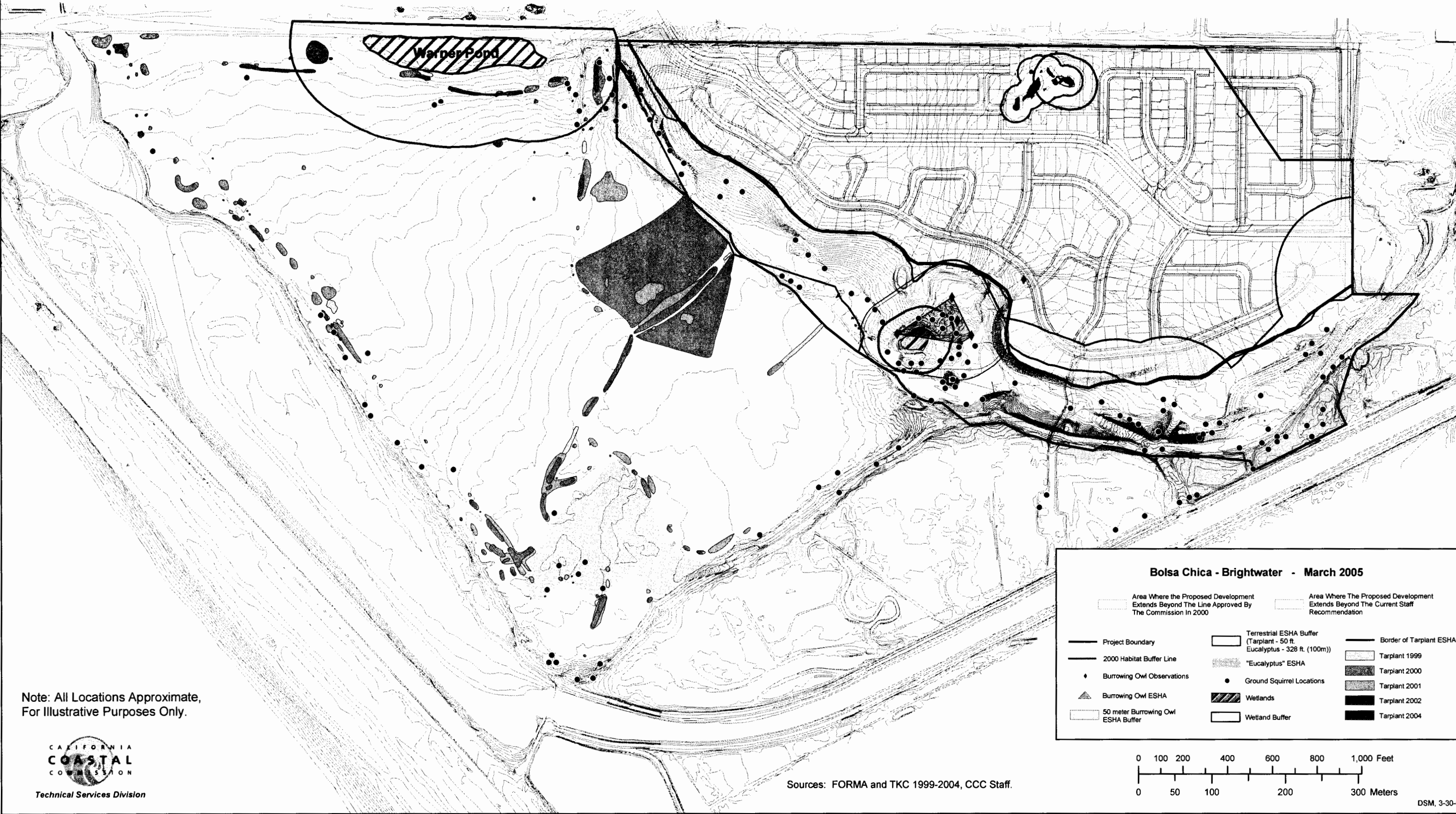
The Richardson and Miller review also summarizes recommendations for spatial buffers that come from various government agencies and raptor researchers. The following buffers are recommended for raptors that are known to have occurred at Bolsa Chica: Osprey (400–1500m), Cooper's Hawk (400–600m), sharp-shinned hawk (400–500m), red-tailed hawk (800m), peregrine falcon (800–1600m), American kestrel (50–400m). Ferruginous hawks, which have the potential to occur at Bolsa Chica (Bloom, 1982), were subjected to experimental disturbance by White and Thurow (1985), which resulted in nest abandonment and lowered fledging success. Based on their experiment, they concluded that a buffer of 250 m would prevent nest desertion for 90% of the population.

These reports of flushing at relatively great distances and the recommendations for very large buffers appear to come from studies of populations outside of urban areas. Based on extensive experience in a range of habitats in southern California, Bloom (2000) estimates flushing distances for raptors that occur at Bolsa Chica as follows: Osprey, red-tailed hawk, rough-legged hawk, white-tailed kite, and peregrine falcon (100yd / 91m); Cooper's hawk ( $\geq$  100yd / 91m); merlin (50 yd / 46m), great horned owl (75 yd / 69m); barn owl (day: 10 yd/ 9m). Bloom also estimated the average distance from their hunting perch that raptors take prey: red-tailed hawk (100–300 yd / 91–274m); red-shouldered hawk (100ft / 30m); merlin (75–400yd / 69–366m); peregrine falcon (150yd / 137m); Cooper's hawk (50–250yd / 46–229m); sharp-shinned hawk (50–150yd / 46–137m); great horned owl (100–300yd / 91–274m); barn owls (25–100yd / 23–91m). These data indicate that the 100 m buffer recommended by USFWS (1979), CDFG (1982), and by staff is not only necessary to prevent disturbance to raptors that utilize the "eucalyptus" ESHA, but is also large enough to provide significant foraging

opportunities close to the nest. This is particularly important because distant foraging increases the risk of nest predation.

White-tailed kites are a fully protected species in California, have frequently nested at Bolsa Chica, and are generally considered relatively sensitive to human disturbance. Therefore, I think that buffers that are adequate to protect nesting white-tailed kites should be adequate for most of the other species that are likely to nest in the Bolsa Chica ESHA. The following minimum spatial buffers have been recently recommended for nesting white-tailed kites: 100m (Bloom, 2002); 100m (Holmgren, 6/7/2002); 50m (J. Dunk (raptor researcher) in personal communication to M. Holmgren, 2002); 46-61m (with "low-frequency and non-disruptive activities"; Froke, 2002). These estimates suggest that a 100-m buffer is probably adequate, but not overly conservative.

The applicant's biological consultants (LSA, 1999) have concluded that a "100 foot buffer will provide adequate distance to permit nesting by the most common and least sensitive raptor species in all suitable portions of the ESHA." Even if true, this is a low standard of protection and the current proposal for a minimum of 150 feet is only marginally better in the affected areas. In the same report, LSA states that, "The southern side of the ESHA will have a great deal of utility for virtually all the nesting birds, because it is bordered by hundreds of acres of open space, it will be screened from the development area by the northern edge of the ESHA, and a substantial portion of the grove is a least 100 meters from future development." I think taken together these statements indicate that development closer than 100 meters will reduce the utility for nesting raptors of those portions of the ESHA that are closest to the development footprint and therefore that a reduced buffer would violate Section 30240(b) of the Coastal Act because the portions of the ESHA nearest the development would be significantly degraded and no longer suitable for nesting by some of the raptor species at Bolsa Chica. I recommend that the northern side of the ESHA be provided with a level of protection that is fundamentally the same as that described by LSA for the southern side and it is my opinion that a 100-m buffer will accomplish this goal.



Note: All Locations Approximate,  
For Illustrative Purposes Only.

## VI. LAND USE PLAN SUGGESTED MODIFICATIONS

**Suggested Modifications:** The Commission certifies the following, with modifications as shown. Language as submitted by Orange County is shown in straight type. Language recommended by the Commission for ~~deletion~~ is shown in ~~line out~~. Language proposed to be inserted by the Commission is shown in underlined boldface italics. **ALL THE LAND USE PLAN POLICIES ARE SHOWN EVEN IF THE COMMISSION HAS NOT PROPOSED SUGGESTED MODIFICATIONS.**

The County policy numbers (are shown in enclosed italics at the end of each policy) conform to the Bolsa Chica Local Coastal Program that is dated December 14, 1994. Policy numbers are "*built*" by taking the chapter number and adding the policy number. For example the public access and visitor serving chapter number is "4.2" (Page 78). The first policy in this chapter will have the number "4.2.1". New policies added by the Commission through suggested modifications are identified by word "*new*" enclosed in parentheses at the end of the new policy.

The addition of new policies or the deletion of policies (as submitted) will affect the numbering of subsequent Land Use Plan policies when the County of Orange publishes the final Bolsa Chica LCP incorporating the Commission's suggested modifications. For purposes of clarity, the numbers shown to the left of each policy have been revised to reflect the final number without the applying formatting to show strike through or insertion. Consequently, the final policy number will consist of the chapter number added to number shown on the left margin. For example the Visual and Scenic Resources Policies are located in Chapter 3.5.2. The last policy number as shown on the left margin for this section is "15" so the final full policy number is "3.5.2.15". As originally submitted this policy was numbered "3.5.2.20". (Page 77)

Additionally the Land Use Plan policies incorporate changes made to department names and titles as a consequence of a reorganization by the County of Orange. As part of the Executive Director's review for effective certification of the Bolsa Chica Local Coastal Program document, Commission staff will also review the LCP findings made by the County of Orange (in the Introduction and Technical Plans and Information sections of each chapter) to assure that they are consistent with the policies modified by the Commission. Below are the suggested modifications.

### A. LAND USE PLAN SUMMARY CHAPTER 2 OF THE LAND USE PLAN AMENDMENT

**Graphic Suggested Modification:** Figure 2.1-1 of the submitted LCP which shows the Land Use Plan and all figures and text based on the Land Use Plan (Figure 2.1-1) contained in the Bolsa Chica Local Coastal Program of December 14, 1994 shall be modified to conform to **Figure 1** (Page 5) of this staff report. Consistent with the suggested modifications, the ten acre school site shall be designated "Public Facility", the former Fieldstone parcel shall be designated "Conservation", the lower bench shall be designated "Conservation" and the reference to residential density shall be modified to "High" density. The land use designation "Recreation" shall be changed to "Space and Recreation". Since this policy refers to a graphic revision,

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once the graphic revisions are made, this policy does not need to be included in the amended Land Use Plan.

**Graphic Suggested Modification:** Table 2-1 of the submitted LCP which shows the Land Use Summary and all figures and text based on the Land Use Summary (Table 2-1) contained in the Bolsa Chica Local Coastal Program of December 14, 1994 shall be modified to conform to the Land Use Plan as shown in **Figure 1** (Page 5) of this staff report. Since this policy refers to a graphic revision, once the graphic revisions are made, this policy does not need to be included in the amended Land Use Plan.

**Global Text Suggested Modification:** Due to a renaming of the Orange County Environmental Management Agency, all text in the Land Use Plan which cites the "*Environmental Management Agency*" or "*EMA*" shall be revised to either "Planning and Development Services" or "PDSD". Any other name revisions shall also be made as required to make the LCP consistent with current department names. Since this policy refers to a global text revision, once the global text revisions are made, this policy does not need to be included in the amended Land Use Plan.

## **B. RESOURCE RESTORATION AND CONSERVATION COMPONENTS**

### **CHAPTER 3 OF THE LAND USE PLAN AMENDMENT**

#### **3.0 GENERAL RESOURCE PROTECTION POLICIES**

The following general policies shall provide the framework for interpreting this Land Use Plan (LUP):

1. Where policies within the LUP ~~overlap~~ **conflict**, the policy which is the most protective of coastal resources shall take precedence.
2. Where there are conflicts between the policies set forth in this LUP and those set forth in any element of the Orange County General Plan, other County plans, or existing ordinances, the policies of this LUP shall take precedence.
3. In the event of any ambiguities or silence of this LUP not resolved by (1) or (2) above, or by other provisions of the Bolsa Chica LCP, the policies of the California Coastal Act shall guide interpretation of this LUP.

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### 3.1.2 WETLANDS/BIOLOGICAL RESOURCE POLICIES

#### WETLANDS ECOSYSTEM AREA ZONING POLICY POLICIES

- ~~The Wetlands Ecosystem Area shall be designated as one or more Conservation Planning Areas on the Development Map of the Bolsa Chica Planned Community Program. This land use district (zone) shall allow the restoration, creation, and protection of wetlands, ESHAs, and Buffers, as well as public access for wildlife interpretation, education, and scientific study. To facilitate implementation of the Wetlands Restoration Program, this LUP shall provide for low density residential development on the northeasterly approximately 185-acre portion of the Lowland adjacent to existing residential areas of Huntington Beach, including appropriate local parks, trails, community facilities and similar supporting uses. All Conservation Planning Areas shall be offered for dedication to the County or other approved agency or organization, subject to the approval of the County Board of Supervisors, and the Coastal Commission Executive Director. In addition, the Landowner/Master Developer shall guarantee funding for the Wetlands Restoration Program. (County Policy 3.1.2.1)~~

The Wetlands Ecosystem Area is comprised of all of Planning Areas 1A, 1B, and 1D (which includes the Edwards Thumb area) and the former Fieldstone Property as shown in County Figure 2.1-1<sup>11</sup>. All lands in the Wetlands Ecosystem Area shall be designated as Conservation on the Development Map of the Bolsa Chica Planned Community Program. This land use district (zone) shall allow: the restoration, creation, and protection of wetlands, ESHAs and buffers; public access for wildlife interpretation, education, and scientific study, incidental public service purposes, including but not limited to, burying cables and pipes; and on an interim basis, oil production where it currently exists.

Prior to issuance of any coastal development permit for any subdivision of the Bolsa Chica LCP area, the private landowner shall irrevocably offer to dedicate to the County of Orange or other public agency a conservation easement over all areas owned by the private property owner which are designated as Conservation in Figure 2.1-1.

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<sup>11</sup>2.2-1 cited is the County's November 2000 graphic Figure 4 on page 20, not the figure as originally submitted.

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WETLAND RETORATION PROGRAM

Wetland Restoration within the Wetlands Ecosystem Area shall occur consistent with the Chapter 3 Policies of the Coastal Act.

OVERALL DESIGN STANDARDS  
AND ACREAGE REQUIREMENT POLICY

- ~~2. The Wetlands Restoration Program shall meet the following overall design objectives:~~
- ~~a. Creation of new tidal inlet, providing a direct ocean water source and tidal influence.~~
  - ~~b. Establishment of a minimum of 1,000 acres of high quality, fully-functioning wetlands, providing enhanced biological productivity and habitat diversity on site;~~
  - ~~c. Protective buffering between habitat areas and adjacent proposed development;~~
  - ~~d. The creation of new least tern nesting habitat;~~
  - ~~e. Design concepts that are consistent with low capital and operation costs;~~
  - ~~f. Mutual compatibility of public and private improvements, including oil production facilities;~~
  - ~~g. Establishment of criteria for evaluating success of wetlands and ESHA restoration;~~
  - ~~h. Protection and/or restoration of endangered species habitat;~~
  - ~~i. Assurance of water of sufficient quality and quantity to provide for improved productivity in the wetlands; and~~
  - ~~j. Compensation of fish and wildlife habitats in the form of replacement habitat that duplicates or surpasses any wildlife values lost.  
(County Policy 3.1.2.2)~~

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HYDROLOGIC REGIMES POLICY

2. ~~The Wetlands Restoration Program~~ Wetland restoration within the Wetlands Ecosystem Area shall provide requirements for the design of hydrologic regimes which are consistent with the Chapter 3 Policies of the Coastal Act. ~~Provide habitat diversity and include:~~
- a. ~~Full Tidal Areas;~~
  - b. ~~Muted Tidal Areas;~~
  - c. ~~Seasonal Ponds Areas; and~~
  - d. ~~Perennial Pond Area.~~ (County Policy 3.1.2.3)

ENVIRONMENTALLY SENSITIVE HABITAT AREAS (ESHAS) POLICIES

3. ~~The Wetlands Restoration Program shall provide for the preservation and/or restoration of a minimum of 65 acres of Environmentally Sensitive Habitat Area within the Wetlands Ecosystem Area.~~

Except for the ten (10) acre school site depicted as Public Facility on Figure 2.1-1, the lower bench of the Bolsa Chica Mesa, shall be designated as Conservation. The Eucalyptus Grove ESHA and the Warner Avenue Pond ESHA shall be preserved. Prior to issuance of any coastal development permit for any subdivision of the Bolsa Chica LCP area, the private landowner/master developer shall irrevocably offer to dedicate to the County of Orange or other public agency a conservation easement over all areas owned by the landowner/master developer which are designated as Conservation in Figure 2.1-1 that are owned by the landowner.  
(County Policy 3.1.2.4)

5. ~~The Wetlands Restoration Program shall provide for the planting of a minimum 20-acre native tree and shrub ESHA along the Huntington Mesa to compensate for the loss of a eucalyptus grove on the Bolsa Chica Mesa.~~  
(County Policy 3.1.2.5)

4. Wetlands that are outside of the Wetlands Ecosystem Area shall be preserved, and where feasible restored, except for the seasonal wetland on the upper bench of the Bolsa Chica Mesa adjacent to Los Patos which can be filled in conjunction with an overall development plan that concentrates residential development on the upper bench of the Bolsa Chica Mesa and locates the school site as depicted in Figure 2.1-1. (NEW)

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5. 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. (NEW)
6. 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. (NEW)
7. At the time of submittal of any coastal development permit for residential development on the Mesa, including any proposed subdivision of the Mesa, the landowner/Master Developer shall submit a long term habitat management plan for all areas owned by the applicant on or adjacent to the Bolsa Chica Mesa which are designated as buffer, Conservation, or Open Space and Recreation. This long term management plan shall be prepared in consultation with the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service. This long term management plan shall, at a minimum, provide for:
  - a. Landscaping provisions which include maintenance of the viability of the Eucalyptus tree ESHA, initial and continued weed eradication, and the removal of exotic plants and non native species which are invasive and considered inappropriate by CDFG & USFWS.
  - b. Provisions for protecting natural resources from domesticated pets and unauthorized human entry.
  - c. Provisions for public education such as public interpretive signs and brochures for homeowners advising them on how to avoid using plants and animals which could affect the ecology of the Conservation planning areas.
  - d. Provisions for a fence separating the conservation areas from both the trail and residential area on the upper bench and the interpretive trail along the edge of the Fish and Game Reserve. Each fence shall prevent normal access by humans and dogs and shall be a minimum of 4 feet in height with a solid top between posts. Each fence shall be constructed of a sturdy, long-lasting wire material such as chain link and shall extend 6 inches below the ground surface. Adjacent to the Fish and Game reserve, the bottom of the fence may be as much as 12 inches above the ground surface if dogs are prohibited on the trail and upon approval of the CDFG and USFWS.

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- e. Provisions which restrict access from the lowlands to the south into the Eucalyptus tree ESHA and adjacent upland areas. Unless there are other effective provisions on adjacent lands to prevent access, the Eucalyptus tree ESHA shall be separated from the adjacent lowlands by a chain link fence a minimum of 7 feet in height. Portions of the bottom of the fence may be up to 18 inches above the ground surface to allow access by small mammals.
  - f. Provisions which ensure that native shrubs appropriate to the area shall be planted on both sides of all fences adjacent to trails or residential areas to further restrict access.
  - g. Provisions for an irrevocable offer of dedication of an open space and conservation easement over all areas designated as Conservation in Figure 2.2-1 prior to issuance of any coastal development permit for subdivision of the LCP area.
  - h. The landowner/Master Developer shall implement all management measures prior to issuance of any coastal development permit for residential construction other than grading. The landowner/Master Developer shall have management responsibility until the offer(s) of dedication are accepted. Any accepting public agency will have long-term management responsibility after any offers of dedication are accepted.
8. The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted, 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:
- a. New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
  - b. Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
  - c. 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

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- navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- d. 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.
  - e. 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.
  - f. Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
  - g. Restoration purposes.
  - h. Nature study, aquaculture, or similar resource dependent activities.  
(NEW)
9. Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment shall be transported for such purposes to appropriate beaches or into suitable long shore current systems.  
(NEW)
10. The diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, and nature study. (NEW)
11. Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients that 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 shall be placed at appropriate points on the shoreline in accordance with other applicable provisions of the Coastal Act and where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before approving a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.  
(NEW)

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## Land Use Plan Suggested Modifications

### BUFFER AND TRANSITION POLICIES

12. ~~Consistent with the CDFG findings that buffers reduce disturbance from adjacent urban development (CDFG, April 8, 1985), the Wetlands Restoration Program shall set design requirements to establish buffers between hydrologic regimes (habitat areas) and adjacent new urban development. The buffers may consist of native vegetation and landscape areas, open water and mudflats, rip-rap and/or other shoreline protection, open unvegetated areas, and public interpretive trails.~~

*Buffers shall provide a transition zone between the resources to be protected and urban development. Buffer areas are not in themselves a part of the environmentally sensitive habitat area to be protected. The land use designation of all buffer areas shall be Conservation or Open Space and Recreation. Only native plants shall be allowed within buffer areas unless otherwise recommended by either the California Department of Fish and Game or the U.S. Fish and Wildlife Service. The buffer on the Bolsa Chica Mesa upper bench overlooking the lowland shall extend inland one-hundred feet from either the Eucalyptus grove ESHA or the edge of the top-of-bluff, whichever is the greatest distance. The buffer separating the lower bench from the upper bench shall extend from the top edge, fifty-feet into the upper bench.* (County Policy 3.1.2.6)

7. ~~The Wetlands Restoration Program shall set design requirements for transitions between the hydrologic regimes of the restoration plan.~~ (County Policy 3.1.2.7)

### PUBLIC ACCESS AND INTERPRETATION POLICIES

8. ~~The Wetlands Restoration Program shall include coastal access to provide public viewing, wildlife interpretation, and educational opportunities within and on the perimeter of the Wetlands Ecosystem Area. Such access shall be consistent with resource protection needs, and designed in coordination with the California Department of Fish and Game.~~ (County Policy 3.1.2.8)
9. ~~The Wetlands Restoration Program shall provide for scientific research and educational opportunities within the Wetlands Ecosystem Area, where it is consistent with both wetlands monitoring and maintenance activities, and other public coastal access programs.~~ (County Policy 3.1.2.9)

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## Land Use Plan Suggested Modifications

### IMPLEMENTATION AND PHASING POLICIES

~~10. The Wetlands Restoration Program shall provide implementation requirements for the restoration of wetlands, ESHAs, and Buffers. It shall establish:~~

- ~~a. Types and extent of various wetlands ecosystem habitats;~~
- ~~b. A Master Phasing Plan which coordinates wetlands restoration with the diminishing of oil production;~~
- ~~c. Additional sources of ocean water needed to restore the habitats;~~
- ~~d. Regulatory requirements for implementation;~~
- ~~e. Responsibilities for the ownership and management of restored areas; and~~
- ~~f. Responsibilities for the conservation, monitoring, and maintenance of created and restored areas. (County Policy 3.1.2.10)~~

~~11. The Wetlands Restoration Program shall include a detailed phasing program. It shall include a precise description of the kinds, locations and intensities of uses of each phase of restoration. The Phasing Program shall be consistent with the following LUP phasing concepts:~~

- ~~a. There shall be no net loss of wetlands or ESHA within the Wetlands Ecosystem Area. Specifically, the area of functioning wetlands and ESHAs shall at no time be less than 85.7 acres and 65 acres, respectively;~~
- ~~b. Grading and construction activities shall avoid impacts to Endangered and Threatened Species during the nesting/breeding season;~~
- ~~c. Consistent with the wetlands design criteria established by the California Department of Fish and Game (CDEG Report, April 8, 1985), the area of pickleweed saltmarsh shall not be less than 200 acres at any time during permitted wetlands restoration/urban development to ensure that the carrying capacity for the Belding's savannah sparrow is not reduced as a result of permitted activities; and~~

~~The Wetlands Ecosystem Area shall be restored in phases which are consistent with and dependent upon the depletion of existing oil recovery operations in the Lowland.~~

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- ~~e. All development impacts to the Bolsa Chica Wetlands shall be mitigated within the Wetlands Ecosystem Area. (County Policy 3.1.2.11)~~

### Monitoring and Maintenance Policy

- ~~12. The Wetlands Restoration Program shall outline procedures and provide regulations that require three (3) specific monitoring and maintenance programs:~~
- ~~a. Construction Period Monitoring and Maintenance Program;~~
  - ~~b. Post Construction Monitoring and Maintenance Program; and~~
  - ~~c. Long Term Monitoring and Maintenance Program.  
(County Policy 3.1.2.12)~~

## 3.2.2 COASTAL/MARINE RESOURCES POLICIES

### GENERAL MARINE POLICIES

1. 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. (NEW)
2. 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. (NEW)
3. 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

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when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. (NEW)

### TIDAL INLET AND HYDROLOGY POLICIES

4. ~~The Tidal Inlet~~ Any tidal inlet and the hydraulic regimes for the Wetlands Ecosystem Areas shall be consistent with the Chapter 3 policies of the Coastal Act. ~~designed to:~~
- ~~a. promote tidal circulation;~~
  - ~~b. minimize, to the extent possible, effects on existing recreational facilities and opportunities at Bolsa Chica State Beach;~~
  - ~~c. promote new recreation and interpretive opportunities; and~~
  - ~~d. mitigate, to the extent feasible, any adverse impacts on upcoast and downcoast beaches to a level of insignificance.~~  
(County Policy 3.2.2.1)
2. ~~A maintenance and monitoring program shall:~~
- ~~a. provide for the removal of sediment in the Tidal Inlet and Full Tidal areas of the wetlands;~~
  - ~~b. mitigate for the increased operation and maintenance costs for the Tidal Inlet that otherwise would accrue to the County or other managing agency approved organization; and~~
  - ~~c. determine specific responsibilities for operation, maintenance and liability for the Tidal Inlet and related mitigations. (County Policy 3.2.2.2)~~

### WATER QUALITY MANAGEMENT POLICIES

5. ~~A Water Quality Management Plan (WQMP) shall be prepared for the Bolsa Chica Planned Community in accordance with Orange County's Drainage Area Management Plan, and Chapter 2 of the Bolsa Chica Planned Community Program.~~

As part of any coastal development permit application which includes grading and/or construction, including development of backbone infrastructure in the Bolsa Chica LCP area, a Water Quality Management Plan (WQMP) shall be

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prepared by the landowner/developer. The WQMP shall be submitted prior to filing the coastal development application as complete.

The Water Quality Management Plan (WQMP) shall be consistent with the water quality policies and other applicable resource management policies of the Bolsa Chica Local Coastal Program. The WQMP shall identify specific source and treatment control measures or Best Management Practices (BMPs) to be incorporated into the development to minimize pollutant load generation, reduce nuisance flows commonly associated with urban development, and to minimize the volume, velocity, and pollutant load of stormwater leaving the development site. Furthermore, the WQMP shall contain provisions for long-term operation and maintenance of approved permanent Best Management Practices (BMP), a monitoring program and a public education program to protect and improve water quality.

(County Policy 3.2.2.3)

6. All development, as defined in Section 30106 of the Coastal Act, approved within the Bolsa Chica LCP area shall be designed and undertaken in compliance with applicable provisions of the State National Pollution Discharge Elimination System (NPDES) General Permit for Stormwater Discharge Associated with Construction Activity issued by the State Water Resources Control Board (SWRCB), and any subsequent amendments or re-issuance of; the County's NPDES Municipal Stormwater Permit, issued to Orange County and Cities by the California Regional Water Quality Control Board, and any subsequent amendment to or re-issuance thereof; the Orange County Drainage Area Management Plan (OC DAMP); and the water quality and marine resource policies of the LCP. (NEW)

7. ~~All drainage facilities and erosion control measures at Bolsa Chica shall be designed and constructed to protect coastal/marine resources in accordance with the Orange County Flood Control District Design Manual and the Orange County Grading Code.~~

All drainage facilities, permanent structural Best Management Practices (BMPs), and erosion control measures within the Bolsa Chica LCP area shall be designed and constructed to protect coastal/marine resources-consistent with the certified LCP and applicable management measures recommended in California's Plan for the Control of Non-Point Source Pollution (January 2000), and in accordance with the specifications contained in the California Stormwater Best Management Practice Handbooks (1993), or any re-issuance thereof, the Orange County Flood Control District Design Manual and the Orange County Grading Code.

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a. Where drainage facilities/ BMPs, or erosion control measures are necessary to comply with applicable Federal State and local water quality or flood control regulations, such facilities shall be located outside of natural drainage courses, to the maximum extent feasible, as well as outside of environmentally sensitive habitat areas or buffers.

b. Additionally, if detentipn basins or retention facilities are used, they shall be designed to promote the infiltration of stormwater into the ground for groundwater recharge. (County Policy 3.2.2.4)

8. ~~Urban runoff from the Bolsa Chica LCP Area shall comply with all existing and applicable Federal, State, and local water quality laws and regulations.~~

Stormwater runoff and nuisance flow from development within the Bolsa Chica LCP area, shall not cause or contribute to significant adverse impacts in immediate receiving waters, or in waters to which immediate receiving waterways are tributary, such as bays, wetlands, and other coastal waters. (County Policy 3.2.2.5)

9. Where new storm drain outlets are necessary, discharge points shall be sited and designed to release in the least environmentally sensitive location and manner.

a. Storm drains are prohibited from discharging directly into Outer Bolsa Bay, the Bolsa Chica Ecological Reserve, Warner Pond or the lowland wetlands restoration area, unless it can be shown that this is not feasible in which case storm drain discharge shall be accomplished in a manner that is the least environmentally damaging feasible alternative.

b. The discharge (in terms of both volume and water quality) of stormwater into other wetlands or ESHAs other than those specified in subsection (a) above, shall only be allowed if necessary to maintain or enhance the functional capacity of the receiving wetland or ESHA.

c. Energy dissipater devices shall be installed on all approved storm drain outlets to prevent erosion and scour at base. (NEW)

10. ~~Sediment basins (e.g., debris basins and/or silt traps) shall be installed in conjunction with all initial grading operations, and shall be maintained throughout the development/construction process to remove sediment from surface runoff.~~

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An erosion and sediment control plan shall be prepared by an appropriate licensed professional, and submitted, prior to issuance of any coastal

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development permit which includes grading and/or any construction, including construction of backbone infrastructure, within the LCP area. The plan shall include provisions for all of the following:

- a. Sediment basins (e.g., debris basins and/or silt traps) and other erosion control measures (such as sandbags) shall be installed in conjunction with all initial grading operations to contain sediment on-site, and shall be maintained throughout their intended lifetimes to remove sediment from surface runoff.
  - b. Temporary and/or permanent erosion control measures shall be provided in order to control erosion both during and after project implementation. Sediment basins, debris basins, de-silting basins, or silt traps shall be designed and installed in accordance with the specifications contained in the California Stormwater Best Management Practice Handbook – Construction Manual (1993), and Chapter 2 of the Planned Community Program. (County Policy 3.2.2.6)
11. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared for the Bolsa Chica Planned Community development, by a registered civil engineer. The SWPPP shall be in compliance with the State Water Resources Control Board (SWRCB) General Construction Activity Stormwater NPDES Permit. (NEW)
  12. Dry weather (April 30<sup>th</sup> through October 1<sup>st</sup> of any year) nuisance flows shall be diverted to flow into the local wastewater treatment facility, or other suitable treatment/reclamation facility for treatment prior to discharge. (NEW)
  13. Natural drainage patterns in areas designated as Conservation or Open Space and Recreation shall be maintained and restored where feasible. (NEW)
  14. Final designs for dredging and excavation projects shall: a) include measures to protect water quality in adjacent areas during construction and maintenance activities; b) shall be consistent with Section 404 of the Federal Clean Water Act and Section 10 of the Federal Rivers and Harbors Act of 1899; and c) shall not adversely affect water quality or marine habitats. (County Policy 3.2.2.7)
  15. Turbidity barriers shall be used during construction located within the vicinity of any tidal areas, of Full Tidal Areas to limit the impacts of turbidity on ocean waters. A barrier ~~may~~ shall be used, ~~if feasible~~, in the vicinity of ~~the Tidal Inlet~~ any tidal inlet during its construction to limit turbidity in the sea. (County Policy 3.2.2.8)

16. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided by the oil field operators in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided which minimizes the total volume of oil spilled and provides access to the most effective feasible containment and recovery equipment for oil spills. (NEW)

Flood Control Policies

- ~~9. The EGGW Flood Control Channel shall be upgraded between Graham Street and the Full Tidal portion of Wetlands Ecosystem Area to provide combined extreme tide/100-year storm event protection to existing and future homes in the area. (County Policy 3.2.2.9)~~
- ~~10. The EGGW Flood Control Channel west of Planning Area 11 shall be removed in order to dilute contaminants and provide stormwaters for the Wetlands Ecosystem Area. (County Policy 3.2.2.10)~~

**3.3.2 PHYSICAL RESOURCES POLICIES**

1. Structures for human occupancy, ~~which are~~ including those located in areas of liquefiable soils, shall ~~conform with all design mitigations required by the County of Orange to~~ minimize risk to life and property and shall. ~~Where appropriate, mitigation should include~~ foundation designs and measures to increase the resistance of the underlying soils to liquefaction.  
(County Policy 3.3.2.1)
2. In accordance with California's Alquist-Priolo Special Studies Zone Act, all development within Bolsa Chica shall be consistent with the site planning and engineering guidelines for the Earthquake Hazard Special Study Zones established for the Newport-Inglewood fault zone that traverses Bolsa Chica.  
(County Policy 3.3.2.2)
3. The risk to life and property from surface subsidence at Bolsa Chica shall be minimized by full compliance with oil extraction and monitoring techniques as regulated by the California Department of Mines and Geology.  
(County Policy 3.3.2.3)
4. Surficial subsidence shall be monitored and groundwater re-pressurization or other methods shall be used to limit potential subsidence impacts.  
(County Policy 3.3.2.4)

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5. Where development areas adjoin bluffs, all buildings and habitable structures shall be set back a sufficient distance from the bluff edge to be structurally safe from the threat of bluff erosion ~~for a minimum of 50 years.~~ for a minimum of seventy-five (75) years. Geotechnical engineering reports shall be required ~~by the County of Orange~~ from all applicants at the time an application for development adjoining a blufftop is submitted to determine ~~this~~ the adequacy of any proposed setback. (County Policy 3.3.2.5)
- ~~6. Development above the coastal bluff facing Outer Bolsa Bay shall be engineered to ensure that surface/subsurface drainage will not contribute to the erosion or affect the stability of the bluff. Any drainage pipes and outlets shall be installed by auguring (i.e., "drilled" from behind the slope face to exit at or near the base of the bluff) not open excavations or trenching, to ensure bluff stability and minimize visual impacts. Any minor residual affects related to drainage improvements shall be mitigated by recontouring and revegetating to obtain a natural landform appearance. (County Policy 3.3.2.6)~~
6. The 25- to 60-foot-high northeast-facing bluff below the Huntington Mesa shall be preserved and restored as set forth in this Land Use Plan's Public Access and Visitor Serving Recreation Component ~~the County adopted General Development Plan/Resource Management Plan for Harriett Wieder Regional Park.~~ This shall include the ESHA restoration set forth in the ~~Wetlands Restoration Program.~~ Any areas requiring remedial grading or slope stabilization shall be recontoured and revegetated with native plant material to restore the natural landform appearance. (County Policy 3.3.2.7)
7. The coastal bluff facing Outer Bolsa Bay and the steep bluff below the Huntington Mesa shall both be protected from human intrusion. Where bluff-top trails are permitted, they will be set back from the edge of the bluff and planted and signed to discourage pedestrians from leaving the trails. (County Policy 3.3.2.8)
8. ~~Pursuant to the County adopted Resource Management Plan for Harriett Wieder Regional Park,~~ a 10- to A 100-foot ESHA/wetlands buffer zone shall be designated the length of ~~the park~~ Harriet Wieder Regional Park and provide separation between the park's equestrian trail on the Mesa and ESHAs along the bluff and the Seasonal and Perennial Pond areas below. (County Policy 3.3.2.9)
9. ~~The historically degraded slope between Bolsa Chica Mesa and the Lowland Pocket Area, that extends from the southern corner of the Mesa to the EGGW Flood Control Channel, shall be remedially graded for stabilization of the Mesa development. The base of the slope shall be protected from Muted~~

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~~Tidal flows related to wetlands restoration. Public Class I bicycle and pedestrian trails shall be included in the design of the stabilized slope.~~

**Development shall assure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding area. Development shall be sited and designed to minimize the alteration of natural landforms and shall not require the construction of protective devices that would substantially alter natural landforms. Where permitted to be altered pursuant to the Conservation Land Use designation the bluff will be restored to a natural appearance through landscaping consisting of native drought-tolerant vegetation.**  
(County Policy 3.3.2.10)

### 3.4.2 CULTURAL RESOURCES POLICIES

1. **Development within the The Bolsa Chica Planned Community Program LCP area** shall ~~require compliance~~ **comply** with all ~~County-adopted~~ archaeological/paleontological policies and **County** Board of Supervisors Resolution No. 77-866 related to cultural and scientific resources, to ensure that all reasonable and proper steps are taken to either preserve archaeological remains in place, or alternatively, that measures are taken to assure the recovery, identification, and analysis of such resources so that their scientific and historical values are preserved. (County Policy 3.4.2.1)
2. **In the event that any Native American human remains are uncovered; the County Coroner, the Native American Heritage Commission, and the Most Likely Descendants shall be notified.** The recommendations of the Most Likely Descendants, as designated by the California Native American Heritage Commission, shall be obtained prior to the reburial of any prehistoric Native American human remains ~~that may be encountered during any archaeological investigation.~~ (County Policy 3.4.2.2)
3. An archaeological research design ~~for Bolsa Chica shall be completed prior to approval of the first Coastal Development Permit for land use development submitted along with any application for a coastal development permit for development within any planning area containing archaeological or paleontological resources~~ required by the ~~Planned Community Program.~~ The research design shall:
  - a. contain a discussion of important research topics that can be addressed employing data from the Bolsa Chica sites; and

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- b. be reviewed by at least three (3) County-certified archaeologists (peer review committee), ~~as required by the guidelines of the California Coastal Commission.~~
  - c. The research design shall be reviewed by the State Office of Historic Preservation and the Native American Heritage Commission.
  - d. The research design shall be developed in consultation with affected Native American groups.
  - e. The peer review committee shall assure the implementation of mitigation measures consistent with the archeological research design.  
(County Policy 3.4.2.3)
4. A systematic cultural resources survey ~~of the Lowland~~ of any planning area shall be initiated and completed before an application is submitted for any coastal development permit affecting that planning area to determine if there are any cultural deposits, and if so, to evaluate their significance. The determination of significance shall be based on the requirements of the California Register of Historical Resources criteria. If found to be significant, the site(s) shall be tested and preserved in open space, ~~if feasible~~; or, if preservation cannot be accomplished consistent with the LUP, a data recovery plan shall be implemented in coordination with ~~the phasing of wetlands restoration and/or~~ development activities. (County Policy 3.4.2.4)
5. A County-certified ~~paleontological field observer, working under the direction of a County-certified paleontologist/archeologist,~~ shall monitor all grading operations on the Bolsa Chica Mesa and Huntington Mesa. Grading operations shall also be monitored by a Native American monitor. If grading operations uncover ~~significant~~ paleontological/archeological resources, the ~~field observer paleontologist/archeologist or Native American monitor~~ shall ~~divert equipment~~ suspend all development activity to avoid destruction of ~~significant~~ resources until a determination can be made as to the significance of the paleontological/archeological resources. If found to be significant, the site(s) shall be tested and preserved until a recovery plan is completed to assure the protection of the paleontological/archeological resources. (County Policy 3.4.2.5)

### 3.5.2 VISUAL AND SCENIC RESOURCES POLICIES

1. ~~Existing views of the coast from public areas shall be preserved.~~

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 public views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be

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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 shall be subordinate to the character of its setting. (County Policy 3.5.2.1)

- ~~2. The Wetlands Restoration Program shall be implemented to improve the visual and scenic character of Bolsa Chica. In particular, the contouring of tidal areas, the creation of dunes, and the planting of approved wetlands and ESHA vegetation shall be done to minimize the artificial "engineered" geometry associated with oil roads and drilling operations, as well as flood control channels, dams, and dikes. Final design and planting shall emphasize the restoration of the meandering and curvilinear patterns historically associated with natural processes and the Bolsa Chica wetlands prior to urbanization. (County Policy 3.5.2.2)~~
- ~~3. As determined compatible with the Wetlands Restoration Program, public access to the Wetlands Ecosystem Area shall be improved and managed so as to provide a "close-up" visual experience for the public. (County Policy 3.5.2.3)~~
2. Public To the extent feasible, continuous public viewing opportunities shall be provided from all trails within Bolsa Chica, including:
  - a. The A Class I Trail within the Buffer separating the residential development on the upper portion of the Mesa from the areas designated as Conservation shall be provided within the buffer area as depicted in Figure 2.1-1. This trail shall be located within the twenty-five feet nearest the residential development, which separates the Muted Tidal wetlands from the Bolsa Chica Mesa development;
  - ~~b. The Class I Trail along the EGGW Flood Control Channel; and~~
  - ~~c. The Class I Trail along the flood control berm that separates the most inland Muted Tidal wetlands from the Lowland development, and along the boardwalk that connects Harriett Wieders Regional Park with the Lowland. (County Policy 3.5.2.4)~~
3. Viewing opportunities shall be provided from trails within Harriett Wieders Regional Park, including interpretive trails and the equestrian trail that connects (off-site) with Huntington Central Park. (County Policy 3.5.2.5)
4. New public viewpoints shall be established within the following new public parks:

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- a. Three (3) viewpoints within Harriett Wieder Regional Park; and
  - b. At least one (1) viewpoint within ~~Mesa Community Park~~ the buffer area on the Bolsa Chica Mesa as depicted in Figure 2.1-1; and
  - c. ~~At least one (1) viewpoint within Lowland Community Park.~~  
(County Policy 3.5.2.6)
5. The existing State Ecological Reserve overlook and exhibit area at the southerly corner of the Bolsa Chica Mesa shall be replaced with a new facility designed in consultation with the California Department of Fish and Game, and the State Coastal Conservancy ~~and the Amigos de Bolsa Chica.~~ (County Policy 3.5.2.7)
  6. The two (2) existing State Ecological Reserve parking areas and scenic overlooks (one along Pacific Coast Highway across from the State Beach and the other near the intersection of Pacific Coast Highway and Warner Avenue) shall be improved in consultation with the California Department of Fish and Game, and the State Coastal Conservancy ~~and the Amigos de Bolsa Chica.~~ (County Policy 3.5.2.8)
  7. To create a visually cohesive backdrop for the Wetlands Ecosystem Area, landscaping within development areas of Bolsa Chica shall predominantly utilize trees used in the regional and local parks, ~~and in the Buffers.~~ Landscaping in the Conservation, Open Space and Recreation, and buffer areas shall consist exclusively of native drought tolerant plants unless otherwise recommended by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. (County Policy 3.5.2.9)
  8. Plant material within any buffer area ~~and/or adjacent to the 100-foot-wide Buffer between development and the~~ Wetlands Ecosystem Area shall provide significant visual softening of architectural facades and building mass when viewed from public areas. (County Policy 3.5.2.10)
  9. Buffer areas between wetlands/ESHA habitats and development/recreation areas shall provide for a gradual transition in landscape materials to avoid visually abrupt edges and an artificial appearance. (County Policy 3.5.2.11)
  10. The planting of trees within development areas and Harriett Wieder Regional Park shall utilize informal patterns and drifts which provide a visually soft and natural backdrop for the Wetlands Ecosystem Area - creating a sense of visual enclosure to the wetlands and shielding the Wetlands Ecosystem Area from oil operations and urban development. (County Policy 3.5.2.12)

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- ~~13. The planting of trees within Harriett Wieder Regional Park shall be consistent with provisions of the County adopted General Development Plan (i.e., the Landscape Character Plan which defines tree plantings of appropriate heights and densities) and Resource Management Plan (i.e., the Visual Resources Section), in particular to protect views from existing and planned adjacent residences toward the Wetlands Ecosystem Area and Pacific Ocean, and to ensure a landscape maintenance program which utilizes tree trimming to maintain views. (County Policy 3.5.2.13)~~
11. The Planned Community Program shall limit and regulate signage within all Recreation, Public Facility, and Conservation Planning Areas so that it is only a minor visual element essential for public safety, ~~welfare, and convenience,~~ resource protection, and to inform the public of the availability of the public recreational amenities. Signage shall be of a consistent coastal theme. (County Policy 3.5.2.14)
12. Utilities for all new development shall be placed underground, ~~unless impractical or undesirable~~ to the maximum extent feasible from a comprehensive environmental perspective. (County Policy 3.5.2.15)
13. Existing above-ground utilities and oil equipment shall be removed from Bolsa Chica to the maximum extent feasible ~~wherever and whenever possible,~~ without interfering with the oil operations. (County Policy 3.5.2.16)
14. Residential building heights shall be limited to ~~two (2)~~ three (3) stories (45 feet maximum) ~~along the bluff facing Outer Bolsa Bay to reduce the visual appearance of development from Pacific Coast Highway.~~ (County Policy 3.5.2.17)
- ~~18. Building heights shall be limited to two (2) stories (35 feet maximum) along Los Patos Avenue to reduce the visual appearance of new development from existing development on the north side of Los Patos. (County Policy 3.5.2.18)~~
- ~~19. Building heights and setbacks within the Northeast Lowland shall be regulated along the edge between new development and existing development so as to reduce the visual impact of new units on existing units. (County Policy 3.5.2.19)~~
15. All fences shall be sited and designed to protect ~~be functional and to have a minimum impact on coastal and scenic views~~ and to be visually compatible with the character of surrounding areas ~~from public locations.~~ This includes privacy fencing for residential areas, as well as environmental-control fencing used within the Wetlands Ecosystem Area for species protection.

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(County Policy 3.5.2.20)

C. PUBLIC ACCESS/VISITOR SERVING RECREATION  
COMPONENT

CHAPTER 4 OF THE LAND USE PLAN AMENDMENT

4.2 PUBLIC ACCESS AND VISITOR SERVING RECREATION POLICIES

**Graphic Suggested Modification:** Figures 4.3-1 and 4.3-2 and Tables 4-1 and 4-2 of the submitted LCP illustrate the public access and visitor serving recreation components contained in the Bolsa Chica Local Coastal Program of December 14, 1994 shall be modified as follows. The trails and public facilities shown in the lowlands shall be deleted. The trails and public facilities shown for Harriet Wiedner Park, the State Ecological Reserve, along Pacific Coast Highway, and Planning Area 3C shall remain as depicted in the original submittal. In terms of the Bolsa Chica Mesa, these graphics shall be modified to conform to **Figure 1** (on page 5) of this staff report. Any other figure depicting the Coastal Access and Recreation Plan shall also be modified. Since this policy refers to a graphic revision, once the graphic revisions are made, this policy does not need to be included in the amended Land Use Plan.

COMPREHENSIVE POLICIES

1. **The recreational needs of new residents shall not overload nearby coastal recreation areas.** Public coastal access, **and recreational opportunities,** including opportunities for wetlands observation and passive recreation such as picnicking, shall be established **by the private landowner/master developer prior to issuance of any coastal development permit authorizing residential construction other than grading.** ~~within new recreation and visitor serving facilities.~~ **Recreational facilities and uses shall be located and designed in such a manner that there will be no significant adverse impacts to wetlands or ESHA resources.** (County Policy 4.2.1)
2. All visitor-serving interpretive facilities shall be designed to be compatible with wildlife habitats. Public trails and interpretive programs shall be designed to ensure they do not adversely affect the Wetlands Ecosystem Area, **any Mesa wetlands, the Eucalyptus Grove ESHAs, Tarplant areas or any of the wetlands located between the EGGW Channel and the Mesa.** (County Policy 4.2.2)

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3. Adequate public parking shall be distributed throughout the Bolsa Chica LCP area in a manner which encourages public use of the various recreational facilities. (NEW)
4. Lower cost visitor and recreational facilities shall be protected, encouraged, and where feasible, provided. Developments providing public recreational opportunities are preferred. (NEW)
5. A comprehensive signage program for all public access/visitor serving recreation facilities shall be provided and shall inform the public of the availability of, and provide direction to, the on-site recreation amenities of the Bolsa Chica LCP area. (NEW)
6. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. (NEW)

### TRAILS POLICIES

7. The public trail system shall be consistent with Figure 4.3-2 of the Land Use Plan which depicts the public trail system. Public trails within the buffer separating the upper and lower Mesa benches and along the portion of the upper Mesa overlooking the lowland shall be located within the twenty-five (25) feet nearest the urban development. (NEW)
8. A comprehensive network of bicycle and pedestrian trails shall be provided for public access. This network shall link Huntington Central Park, Harriett Wiedner Regional Park, Bolsa Chica Wetlands Ecosystem Area, Bolsa Chica State Beach, ~~and Bolsa Chica State Ecological Reserve,~~ and the Bolsa Chica Mesa bluff trail to surrounding residential, recreation, and public parking areas. ~~It shall include an elevated boardwalk (i.e., Lowland Trail Corridor) through the Seasonal Ponds, connecting Harriett Wiedner Regional Park with the Northeast Lowland. (County Policy 4.2.3)~~
9. Opportunities for wetlands observation shall be provided by overlooks provided along public trails in Buffers between the residential areas and the Wetlands restored wetlands Ecosystem Area. Consistent with ~~Policies 8 and 9~~ of the Wetlands/Biological Resources Component, limited access interpretive trails shall be provided along portions of the Bolsa Chica Mesa and berms within the Wetlands Ecosystem Area as shown in Figure 4.3-2. Public use of such trails shall be controlled to protect wildlife and habitat

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values. **Public use trails other than interpretive trails shall not be limited.**  
(County Policy 4.2.4)

10. All bikeways shall be consistent with the Orange County Master Plan of Regional Bikeways, and the **City of** Huntington Beach Master Plan of Local Bikeways. (County Policy 4.2.5)
11. The Landowner/Master Developer shall, **prior to issuance of any coastal development permit approving any subdivision of a Bolsa Chica LCP area, irrevocably** dedicate to the County of Orange or other public agency, the land and/or easements within the Bolsa Chica LCP Area that are **owned by the private landowner/master developer that are** required for public trails indicated on the Coastal Access and Recreation Plan **(Figure 4.3-2).**  
(County Policy 4.2.6)
12. **All new trails shown on the Coastal Access and Recreation Plan (Figure 4.3-2) that are required to be irrevocably dedicated to the County or other public agency prior to the issuance of any coastal development permit approving any subdivision of the Bolsa Chica LCP area under the ownership of the Landowner/Master Developer shall be graded by the private Landowner/Master Developer at the time grading for the roadways for the planning area occurs. All such trails shall be improved by the private Landowner/Master Developer concurrent with the construction of the roadways and prior to the issuance of any coastal development permit authorizing residential construction (except grading). (NEW)**

### PUBLIC PARKING AND STAGING AREA POLICIES

13. The Harriett Wiedner Regional Park, local parks, and other visitor-serving recreation facilities shall include ~~appropriate~~ **adequate** on- and off-street public parking and bicycle racks. (County Policy 4.2.7)
- ~~8. Approximately 100 public parking spaces shall be provided within the Mesa Community Park, and in parking pockets along the Bolsa Chica Mesa Connector adjacent to the park to accommodate the parking needs of residents and visitors to Bolsa Chica's recreational and interpretive facilities. (County Policy 4.2.8)~~
- ~~9. Approximately 60 public parking spaces shall be provided within and adjacent to the Lowland Community Park to accommodate visitors to park facilities and Lowland trails. (County Policy 4.2.9)~~

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14. *A public vehicular bluff edge scenic road shall be provided on the Bolsa Chica Mesa immediately landward of the buffer as required below. The purpose of the bluff edge scenic road is to maximize public access to the public buffer trail, separate private residential land use from public use areas, to preserve scenic views of the lowland and the ocean, and allow for public safety and emergency vehicle access to the public areas. Parallel public parking shall be provided along both sides of the bluff edge scenic road, and no red curbing or signs shall be permitted or any other structure of practice allowed to prohibit public parking except near street intersections where necessary for public safety reasons. (NEW)*
15. *Private roads which limit the public's ability to park within any residential areas shall not be allowed unless a public parking lot containing a minimum of thirty (30) parking spaces is provided adjacent to the public scenic roadway. Public roads will provide public on-street parking. (NEW)*

HARRIETT WIEDER REGIONAL PARK POLICIES

16. *The* ~~*Prior to issuance of any coastal development permit for residential subdivision of the Bolsa Chica Mesa the*~~ approximately 49 acres of land owned by the Landowner/Master Developer on the Huntington Mesa, shall be irrevocably dedicated to the County of Orange for *public park purposes and* inclusion within the proposed 106-acre Harriett Wieder Regional Park ~~upon final certification of the LCP.~~ (County Policy 4.2.10)
17. Harriett Wieder Regional Park, ~~as described in the County approved General Development Plan and Resource Management Plan,~~ shall provide a variety of interpretive and recreational opportunities for the public. Interpretive areas which emphasize the ecology and history of Bolsa Chica shall be the focal point of Regional Park facilities. (County Policy 4.2.11)
18. Visitor-serving concessions permitted within the Harriett Wieder Regional Park shall be located, designed and operated so as not to create unmitigable traffic congestion or vehicular/pedestrian hazards.  
(County Policy 4.2.12)
19. ~~The Harriett Wieder (formerly Bolsa Chica) Regional Park General Development Plan and Resource Management Plan is incorporated by reference in the LCP, and may be updated by the County of Orange consistent with the Bolsa Chica LUP policies.~~ *Harriett Wieder (formerly Bolsa Chica) Regional Park shall be devoted to open space/park use. Development shall minimize the alteration of land forms, landscaped in a manner compatible with the adjacent wetlands and environmentally sensitive habitat*

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areas, and provide adequate off-street public parking. Any General Development Plan and Resource Management Plan prepared for the regional park shall be in conformance with the land resources protection policies (wetland and ESHA resources, archaeological resources, landform alteration) and the public access (public parking) policies of the Coastal Act. The General Development Plan and Resource Management Plan may be incorporated into the LCP only through an LCP amendment certified by the Coastal Commission. (County Policy 4.2.13)

### INTERPRETIVE KAYAK/CANOE FACILITY POLICIES

- ~~14. A small boat dock, small quiet water swimming beach, and related facilities shall be provided at an appropriate location within the Recreation and/or Conservation Planning Areas of the Bolsa Chica Planned Community to facilitate a ranger-managed interpretive kayak/canoe program of the wetlands for the general public. Interpretive kayaks/canoes shall be restricted to the Full Tidal Area under the jurisdiction of Orange County or other managing agency. (County Policy 4.2.14)~~
- ~~15. The Bolsa Chica Planned Community Program, Recreation and Conservation Planning Areas shall permit facilities for small non-motorized boats (kayaks and/or canoes), and facilities for boats and dredges necessary to operate and maintain the Wetlands Ecosystem Area. Permitted ancillary uses shall accommodate dry storage for kayaks and/or canoes, a launching ramp, and other necessary related facilities (e.g., hoists, stacking, and staging areas) to provide safe public access to, and use, of coastal waters. (County Policy 4.2.15)~~
- ~~16. The interpretive kayak/canoe facility shall be designed and operated so as to be compatible with wildlife habitats and water quality objectives established in this LUP. Public programs shall be designed to ensure that wetlands interpretation does not adversely affect the Wetlands Ecosystem Area. (County Policy 4.2.16)~~

### BOLSA CHICA STATE BEACH POLICIES

20. All recreation and circulation planning for ~~the Tidal Inlet~~ any proposed tidal inlet area of Bolsa Chica State Beach shall be done in coordination with the California Department of Parks and Recreation, the California Department of Transportation, and the City of Huntington Beach. Any proposed tidal inlet shall require approval from the California Coastal Commission and shall be consistent with the Chapter 3 policies of the Coastal Act.

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(County Policy 4.2.17)

- ~~22. Only the portion of Bolsa Chica State Beach affected by the Tidal Inlet is addressed by this LCP. The California Department of Parks and Recreation may prepare a separate "Public Works Plan" (or other LUP/IAP documentation) for any and all portions of Bolsa Chica State Beach, and this State plan may be certified by the Coastal Commission without amending this LCP. (County Policy 4.2.18)~~

### LOCAL PUBLIC PARKS POLICIES

- ~~21. The Landowner/Master Developer shall prepare a Local Park Implementation Plan (LPIP) so as to fully satisfy the County's Local Park Code. (County Policy 4.2.19)~~

- ~~22. All local public parks required by the LPIP shall be irrevocably offered for dedication to the County of Orange as a condition of subdivision approvals, in accordance with the County's Local Park Code. (County Policy 4.2.20)~~

21. A signage plan shall be prepared to direct the public to the recreational amenities. Signage visible from Warner Avenue, Los Patos, Edwards Street, and Seapoint shall be provided to direct the public to the recreational amenities. (NEW)

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**D. REGIONAL CIRCULATION AND TRANSPORTATION  
COMPONENT**

**CHAPTER 5 OF THE LAND USE PLAN AMENDMENT**

**5.2 REGIONAL CIRCULATION/TRANSPORTATION POLICIES**

REGIONAL CIRCULATION POLICIES

1. ~~An~~ Any Area Traffic Improvement Program (ATIP) that is prepared by the landowner/master developer shall ~~be created and~~ include the following elements:
  - a. regional road improvements that enhance coastal access;
  - b. improvements to Bolsa Chica Street, Warner Avenue, and Pacific Coast Highway which are the primary travel corridors serving the LCP Area;
  - c. provision ~~of~~ for funding ~~for~~ of traffic improvements; and
  - d. a traffic improvement phasing plan which ensures that road improvements are phased in conjunction with residential and commercial development.
  - e. The ATIP shall be in conformance with the policies of the Coastal Act. The ATIP may be incorporated into the LCP only through an LCP amendment certified by the Commission. (County Policy 5.2.1)

ARTERIAL HIGHWAY POLICIES

- ~~2. The ATIP shall provide improvements at the interchange of the 405 Freeway and Warner Avenue. (County Policy 5.2.2)~~
2. The ~~ATIP~~ landowner/master developer shall provide improvements at the interchange of the 405 and 22 Freeways with Bolsa Chica Street prior to issuance of any coastal development permit authorizing residential construction other than grading. (County Policy 5.2.3)
3. An offer of dedication shall be made by the private landowner to achieve the ultimate Major Arterial width of Pacific Coast Highway within the Bolsa Chica LCP Area (i.e., to a 120-foot right-of-way). This shall entail a 15-foot-wide

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offer of dedication within the "Whipstock" (oil facilities) Area adjacent to Pacific Coast Highway. All other lands required for the potential Pacific Coast Highway widening are owned by either the State of California or the City of Huntington Beach, including parts of Bolsa Chica State Beach and the Bolsa Chica State Ecological Reserve. (*County Policy 5.2.4*)

- ~~5. An offer of dedication shall be made by the private landowner to achieve the ultimate Major Arterial width for Warner Avenue. This dedication shall include a 30 foot wide offer of dedication on the Bolsa Chica Mesa adjacent to Warner Avenue. (*County Policy 5.2.5*)~~
4. The Warner Avenue/Pacific Coast Highway intersection shall be improved to facilitate circulation to and from Bolsa Chica State Beach. (*County Policy 5.2.6*)

### ATIP FINANCING POLICIES

- ~~7. An ATIP funding program for those ATIP phases included within a subdivision shall be established at the time of tentative map approval. The funding program shall be satisfactory to the Director/EMA. (*County Policy 5.2.7*)~~
- ~~8. Security for all "Full Construction" ATIP improvements within an ATIP phase shall be provided before the issuance of the first building permit for a residential unit within that phase. Security may consist of a bond, letter of credit, or establishment of a funding mechanism such as an assessment district or community facilities district. (*County Policy 5.2.8*)~~
- ~~9. If not included within a financing district, a fee program to fund the "Fair Share Participation" ATIP improvements within an ATIP phase shall be established at the time of the approval of the first tentative tract map including units within that ATIP phase. Fees for residential units within an ATIP phase shall be made before recordation of the final map which includes the residential unit. (*County Policy 5.2.9*)~~
- ~~10. An advisory committee will be established to monitor the implementation of ATIP. The County of Orange will be the lead agency and committee members will include representatives of the cities of Huntington Beach, Fountain Valley, and Westminster along with representatives from the Orange County Transportation Authority (OCTA) and the Landowner/Master Developer. Non participation or lack of cooperation by public agency members in implementing ATIP improvements shall not result in the County withholding development approvals. (*County Policy 5.2.10*)~~

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### ATIP PHASING POLICIES

5. ~~ATIP shall be phased as described in Table 5-1. A detailed phasing plan shall be submitted to the Director of EMA~~ **PDS at the time of submittal of any coastal development permit application for the approval any subdivision prior to recordation of a final map for residential development.** Detailed phasing plans shall be developed in accordance with the County Growth Management Plan and the Congestion Management Plan, ~~and identify the specific improvements necessary to accommodate new development and provide a schedule for completing the improvements,~~ **and be consistent with the improvements as described in Table 5-1 of the Land Use Plan. The improvements necessary to accommodate the residential development shall be constructed prior to the issuance of the coastal development permit authorizing the residential development.** (County Policy 5.2.11)

### LOCAL CIRCULATION POLICIES

6. Impacts to surrounding neighborhoods shall be minimized by providing access routes to the Bolsa Chica Mesa development area on arterial roads including Warner Avenue and Bolsa Chica Street. (County Policy 5.2.12)
- ~~13. Lowland residential access shall be provided on three arterials to minimize traffic impacts on any one arterial access. Graham Street and Talbert Avenue will be connected by a Secondary (four lanes undivided) road to provide appropriate accessibility to both streets. (County Policy 5.2.13)~~
7. Non-auto circulation shall be provided within the Planned Community, including Class I and Class II bicycle, equestrian, and hiking trails linking community parks, Bolsa Chica State Beach, and ~~the~~ Harriett Wieder Regional Park. Pedestrian connections from residential subdivisions to these trails shall be provided. Surrounding communities shall also have access to these trails to facilitate non-vehicular access to local and regional recreational opportunities. **Safe and secure bicycle racks shall be provided at appropriate locations within the community and regional parks, and along the trails on the Bolsa Chica Mesa.** (County Policy 5.2.14)

### TRANSIT POLICIES

8. The arterial highway facilities implemented as part of the Planned Community shall include provisions for bus turnouts at appropriate locations. (County

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9. Pedestrian linkages from adjacent residential uses shall be furnished to accommodate access to the bus transit systems. (*County Policy 5.2.16*)

### AIR QUALITY POLICIES

10. Project-level Coastal Development Permits shall, where feasible, incorporate vehicular trip reduction strategies including the following:
  - a. Education and Information: A centrally-located commuter information area that offers information on available transportation alternatives, route schedules and maps, available employee incentives, and rideshare promotional material shall be provided in a community clubhouse ~~and/or Neighborhood Commercial areas.~~
  - b. Telecommunications: A telecommunications center shall be established within the Planned Community. This center could be located within a community clubhouse ~~or Neighborhood Commercial area,~~ and include Automatic Teller Machines, Modem/Fax stations, Teleservice facilities, government information and/or transaction machines, and other related communication facilities which reduce the necessity of travel outside the Planned Community.
  - c. Bicycle Parking: Bicycle commuting shall be encouraged through the inclusion of amenities that address unique aspects of the bicycle commuter, including Class I and Class II Bicycle Trails and the provision of safe and secure bicycle racks ~~within the Neighborhood Commercial and~~ along the trails and within the community and regional park areas of the Bolsa Chica LCP area. (*County Policy 5.2.17*)

## E. DEVELOPMENT COMPONENT

### CHAPTER 6 OF THE LAND USE PLAN AMENDMENT

#### 6.2 DEVELOPMENT POLICIES

##### Residential Policies

1. A maximum of ~~3,300~~ 1,235 dwelling units shall be permitted within the portions of the Bolsa Chica Planned Community designated for residential development. ~~The number of dwelling units for the Bolsa Chica Mesa shall~~

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~~not exceed 2,500. The number of dwelling units permitted for the Northeast Lowland (Planning Areas 10 and 11) shall not exceed 900.~~  
(County Policy 6.2.1)

2. A wide range of residential densities and housing types shall be permitted on the Bolsa Chica Mesa. ~~A comparatively narrow range of Low Density housing types shall be permitted in the Northeast Lowland. Although individual projects may vary, overall Planning Area densities shall not exceed the County General Plan's "Suburban" Residential Neighborhoods category (i.e., 0.5 to 18.0 DU/Ac.). In no case will the residential density conflict with the "Planned Community Statistical Table" contained in the Planned Community Program.~~ (County Policy 6.2.2)

3. ~~Residential development adjacent to the Wetlands Ecosystem Area shall be designed to avoid adverse impacts on habitat resources.~~

Residential development shall be designed to avoid significant adverse impacts on wetlands or environmentally sensitive habitat resources. Residential development shall be distributed throughout the upper bench of the Bolsa Chica Mesa consistent with the Planned Community Statistical Table and shall not exceed a total of 1,235 residential units. All coastal development permits for the Bolsa Chica Mesa shall conform with the allocation of maximum dwelling units contained in the LCP's Planned Community Statistical Table both by Planning Area and in terms of the overall limit of 1,235 residential units. Development Areas created pursuant to any coastal development permit, as well as subsequent subdivision(s) of those Development Areas, shall not result in the creation of residential lots or parcels which do not have residential units associated with their future development. The intent of this policy is to ensure that no circumstance is created wherein the development of the Bolsa Chica Mesa would ever exceed the aforementioned 1,235 maximum residential units. This residential cap on the total number of units on the Bolsa Chica Mesa applies to and includes all current and subsequent ownerships on the Mesa, and any development rights that may accrue from the Edwards Thumb parcel. (County Policy 6.2.3)

4. Street lights and other lamps over twelve (12) feet high in development areas shall be shielded to reduce the amount of light straying into Conservation and buffer areas ~~the Wetlands Ecosystem Area.~~ (County Policy 6.2.4)
5. ~~Neighborhood Commercial facilities shall be permitted within specified Medium High Density Residential Planning Areas, up to a maximum of 10 acres, consistent with the Orange County General Plan. Any such facilities shall be regulated by the Planned Community Program, and shall be evaluated using the "Guidelines: Neighborhood Commercial," set forth in the County~~

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~~General Plan. Neighborhood Commercial facilities shall not be permitted within the Low Density Residential Planning Areas in the Lowland.~~  
(County Policy 6.2.5)

5. New residential development shall be compatible in terms of neighborhood character and scale with existing adjacent residential development in the City of Huntington Beach. (County Policy 6.2.6)

### LOCAL PARK AND COMMUNITY FACILITY POLICIES

6. Community parks shall serve the recreational needs of the general public as well as local residents, ~~and shall also supply to provide~~ public coastal access opportunities ~~and staging areas~~ for visitors to Bolsa Chica ~~where appropriate.~~  
(County Policy 6.2.7)
7. Public schools shall be permitted within residential planning areas.  
(County Policy 6.2.8)
8. A ten (10) acre school site shall be designated immediately adjacent to Warner Avenue and on the lower bench of the Bolsa Chica Mesa as depicted in Figure 2.1-2. Any school constructed shall be designed to protect the adjacent Conservation area to the maximum extent feasible. This site shall only be used as a school site. Design features which shall be used to protect the adjacent Conservation area shall include, but not be limited to, the following:
  - a. The portion of the ten acre school site immediately adjacent to the conservation area shall be kept in open space to the maximum extent feasible, by for example, locating ballparks and other open space uses on the perimeter of the site closest to the conservation area. The ten acre school site shall consist of (10) usable acres exclusive of any wetland or upland habitat buffers.
  - b. The buffer between the school site and Warner Pond shall be a minimum of 100 ft.
  - c. The entire school site shall be surrounded by fencing that precludes access to the surrounding conservation areas, but may be constructed to permit access and egress by students, faculty, and vehicles in emergency situations, and for access to the conservation areas for environmental education programs if allowed pursuant to an approved habitat management plan as required by Regulation 2.3.12 of the Planned Community Program (see page 145 of the staff report). The fencing shall be a minimum of seven (7) feet in height except where it is within 50 feet of the Warner Avenue access, and shall be

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constructed of solid block material which will minimize noise and create a visual shield between conservation areas and the school site. Within 50 feet of the Warner Avenue access, the fence may be stepped down to improve visual qualities and provide safe lines of sight for motorists. However, Warner Pond shall be shielded to the maximum extent feasible. Where necessary, chain link or other supplemental fencing materials may be used to prevent access to the conservation area. Native trees and shrubs shall be planted on both sides of the entire perimeter of the fence to reduce visual impacts and provide habitat. The specific design and plant pallet shall be determined in cooperation with the California Department Fish and Game and U.S. Fish and Wildlife Service.

- d. Drainage for the school site shall not enter the conservation area.
- e. No night lighting shall be utilized except for lighting that is necessary for safety and/or security purposes. Such lighting shall be low intensity and positioned downward. Playing fields shall not be lighted.  
(NEW)

#### LOCAL ROAD AND INFRASTRUCTURE POLICIES

- ~~9. The local road system for the Bolsa Chica Mesa shall include a Secondary Arterial Highway that connects Bolsa Chica Street with Warner Avenue. This road shall be the primary spine for the community, and include notched parking and a landscaped median. (County Policy 6.2.9)~~
- ~~10. The existing three Arterial Highways that dead end along the edge of Bolsa Chica's Northeast Lowland, shall all be extended into the LCP Area as Secondary Arterials. The ends of Graham Street and Talbert Avenue shall be connected by a Lowland Connector, which shall also be a Secondary Arterial with a median. (County Policy 6.2.10)~~
- ~~11. An emergency access route for police, fire, and paramedic vehicles, shall be provided across the EGGW Flood Control Channel, that links the Northeast Lowland with the Bolsa Chica Mesa. This emergency access shall accommodate a Class I Bicycle/Pedestrian Trail. However, it shall be designed so that the general public cannot use the emergency access or trail as a vehicular "cut through" route between the Bolsa Chica Mesa and the Lowland. (County Policy 6.2.11)~~
- 9. Water supply for development and fire protection shall be established in cooperation with an existing water agency or through the creation of a new agency. (County Policy 6.2.12)

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10. Domestic and landscape water conservation devices shall be required in all new development, pursuant to State and County laws and guidelines.  
(County Policy 6.2.13)
11. Reclaimed water shall be used for public parkways and common area landscape irrigation within Bolsa Chica if the Orange County Water District and the Landowner/Master Developer reach agreement that it is economically feasible to provide reclaimed water through OCWD's Green Acres Project.  
(County Policy 6.2.14)
12. Consistent with sound civil engineering practices, utilities shall be principally located in road rights-of-way or, where necessary and feasible, in recreation and open space areas not primarily required for wildlife habitat. **Any utilities located within recreation or open space areas shall be placed below grade where feasible. Where undergrounding is infeasible, utilities shall be designed in a manner which will not reduce useable recreation or parking area or be visually intrusive.** New utilities shall not be located within **ESHA, wetlands, or the Wetlands Ecosystem Area** ~~unless~~ **except to the extent the location of the utilities within a wetland constitutes an incidental public service and, in accordance with Coastal Act Section 30233(a)(5),** there are no other feasible, less environmentally damaging alternatives as defined in the Coastal Act. Mitigation measures shall be provided to minimize adverse environmental effects of any new utilities located in this area. (County Policy 6.2.15)
13. New utilities to serve **residential** development shall be located **within the residential development planning areas or existing road right-of-ways and** outside of the Wetlands Ecosystem Area ~~unless~~ **except to the extent the location of the utilities in the Wetlands Ecosystem Areas constitutes an incidental public service that is in accordance with Coastal Act Section 30233(a)(5) and** there are no other feasible, less environmentally damaging alternatives as defined in the Coastal Act. Mitigation measures shall be provided to minimize adverse environmental effects of any new utilities located in these areas, including utilities directly related to petroleum production, wetlands restoration and maintenance, and water quality and flood control. (County Policy 6.2.16)
- ~~17. A local roadway system in the Northeast Lowland shall link Graham Street, Talbert Avenue, and Springdale Street. (County Policy 6.2.17)~~

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COMMUNITY DESIGN POLICIES

14. The architecture of the Bolsa Chica community shall draw upon thematic characteristics found in traditional New England coastal towns, and adapt those characteristics to local conditions of climate, market, materials availability, density, and technology. (*County Policy 6.2.18*)
15. Community Transition/Urban Edge Treatment Plans shall be included as part of any coastal development permit application for development abutting a Conservation Planning Area ~~Coastal Development Permits required by the Planned Community Program~~, to illustrate the landscape edges, transitions, and interfaces between Bolsa Chica and existing residential neighborhoods in the City of Huntington Beach, ~~as well as the 100-foot-wide Buffer between development and the various hydrologic regimes within the Wetlands Ecosystem Area.~~ (*County Policy 6.2.19*)
- ~~20. The landscape transition between the habitat landscape of the restored wetlands/ ESHAs and the development shall be provided primarily by using native and low-maintenance plantings within the Buffer that adjoins each residential development area. (*County Policy 6.2.20*)~~
16. Landscape screening (including low walls, shrubs, and/or drifts and groves of trees) shall be designed and installed along streets, trails, and the perimeters of residential and recreational developments to soften development edges visible from PCH and other public areas of Bolsa Chica. (*County Policy 6.2.21*)

**F. OIL PRODUCTION COMPONENT**

**CHAPTER 7 OF THE LAND USE PLAN AMENDMENT**

**7.2 OIL PRODUCTION POLICIES**

1. Oil production shall continue at Bolsa Chica until abandoned due to natural depletion of the recoverable oil or by early abandonment. This LUP does not preclude early public acquisition and abandonment of oil leases to facilitate accelerated ~~implementation of the Wetlands Restoration Program~~ wetlands restoration. Otherwise, the productivity and legal status of oil operations at Bolsa Chica shall not be significantly diminished by the implementation of new land uses permitted by this LUP unless agreed to by the affected oil operator/lessee. (*County Policy 7.2.1*)

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2. Existing oil production shall be allowed to continue during and following implementation of wetlands restoration and development.  
(County Policy 7.2.2)
3. Oil production shall be managed to protect biological resources to the maximum extent feasible and shall be consistent with Sections 30260 through 30263 of the Coastal Act. ~~Wherever possible, future oil facilities shall be sited so as not to conflict with the Wetlands Restoration Program.~~  
(County Policy 7.2.3)
4. In accordance with Federal, State, and local laws, and applicable agreements, oil operators shall be responsible for the clean up of areas to permit development and wetlands restoration. (County Policy 7.2.4)
5. As oil production within the Wetlands Ecosystem Area is phased out, the area shall be restored consistent with the Chapter 3 policies of the Coastal Act ~~in conformance with the Wetlands Restoration Program~~ and shall function as part of the wetlands system. (County Policy 7.2.5)
6. Adequate screening, setbacks, and aesthetic treatments shall be provided within development areas to minimize hazards and nuisances posed by the proximity of oil operations. These measures shall be implemented in conjunction with Coastal Development Permits, and by specific Oil Production Regulations that shall be set forth in the Bolsa Chica Planned Community Program. (County Policy 7.2.6)
7. All ~~new~~ development shall be designed in accordance with the provisions of California Public Resources Code Section 3208.1 and California Department of Conservation, Division of Oil and Gas Guidelines regarding specifications and standards for oil-related activities, and well abandonments and reabandonments. (County Policy 7.2.7)
8. Where oil production will continue within a development Planning Area or a ~~Wetlands Restoration Phasing Area~~ wetlands restoration area, a plan shall be prepared indicating the continuing facilities and their relationship to the development area or wetland restoration, and submitted to the County of Orange in conjunction with ~~the any proposed Coastal Development Permits~~ coastal development permit application involving the area ~~as set forth in the Bolsa Chica Planned Community Program.~~ This plan shall ~~facilitate be consistent with the Wetlands Restoration Program~~ wetlands restoration to the maximum extent feasible. (County Policy 7.2.8)

9. ~~An Oil Spill Prevention Control and Countermeasure Plan (OSPCCP) and an Oil Spill Contingency Plan (OSCP) has been prepared by the current oil~~

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~~operators, and approved by the California State Lands Commission, the California Department of Oil Spill Prevention and Response, and the California Department of Fish and Game. The Wetlands Restoration Program shall incorporate the requirements of the OSPCCP and OSCP. As the Wetlands Restoration Program is implemented, the OSPCCP and OSCP shall be updated to reflect each implementation phase. Both initial incorporation of requirements and subsequent updates shall be accomplished without requiring an amendment to the Bolsa Chica LCP. (County Policy 7.2.9)~~

### G. FINANCING AND PHASING COMPONENT CHAPTER 8 OF THE LAND USE PLAN AMENDMENT

#### 8.2 FINANCE AND PHASING POLICIES

1. No County General Funds shall be used for the construction of infrastructure improvements within Bolsa Chica, other than funds for Harriett Wieders Regional Park, or for regional road and flood control improvements approved by the County. The Landowner/Master Developer shall be responsible for construction of local roads and other infrastructure not otherwise financed by Federal, State, or special assessment districts formed for the Bolsa Chica LCP Area. (County Policy 8.2.1)
- ~~2. The expenditure of public funds to provide services in conjunction with public community facilities shall be made only for those service areas where development plans are fully consistent with this LCP. (County Policy 8.2.2)~~
2. Residential development shall be phased in conjunction with the capacity of public facilities and services and the availability of public access and public recreation. Public trails and public parks identified in the certified LCP that are required to be irrevocably dedicated to the County or other public agency prior to the issuance of any coastal development permit approving any subdivision of the Bolsa Chica Mesa shall be improved by the private landowner/master developer prior to the issuance of any coastal development permit authorizing residential construction other than grading. (County Policy 8.2.3)

#### WETLANDS RESTORATION PHASING AND FINANCING POLICIES

- ~~4. The Wetlands Restoration Program shall be phased in consideration of the natural depletion of oil. The location, size, and sequence of Wetlands Restoration Phasing Areas shall reflect the anticipated phase out of oil~~

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~~production facilities within Bolsa Chica. Access roads, drill sites, and other areas required for ongoing oil production shall be held out of larger areas otherwise suitable for wetlands restoration until they are no longer needed for oil production. (County Policy 8.2.4)~~

~~5. A financial implementation framework for wetlands restoration shall be prepared as part of the Wetlands Restoration Program. This framework shall include:~~

~~a. Estimated capital improvement cost for each phase of wetlands restoration;~~

~~b. Comprehensive implementation plans, which include property acquisition and capital improvements, as well as requirements for:~~

~~i. construction period monitoring and maintenance;~~

~~ii. post-construction period monitoring and maintenance; and~~

~~iii. long-term monitoring/maintenance.~~

~~c. Definition of the financial responsibilities and institutional arrangements that will assure the funding of items (a) and (b) above.  
(County Policy 8.2.5)~~

~~6. The financial assurance for the wetlands restoration shall be provided as set forth in Table 8-1. (County Policy 8.2.6)~~

## H. GLOSSARY

### CHAPTER 9 OF THE LAND USE PLAN AMENDMENT

#### 9.1 GLOSSARY

The meaning and construction of words, phrases, titles, and terms used in this Land Use Plan shall be the same as provided in Orange County General Plan and Zoning Code, except as otherwise provided in this Chapter.

1. **100-year-flood** — A measure of carrying capacity for a flood control channel, dam, or other water facility. A 100-year-flood is the largest that, according to rainfall and hydrology discharge probabilities, might occur in any 100-year period.

2. **1973 Boundary Settlement and Land Exchange Agreement (1973 Settlement Agreement)** — The 1973 agreement between the State of California and Signal Bolsa  
COASTAL COMMUNITY CORPORATION giving the State fee title to a consolidated 300 acres, plus a lease option on

## State of California

Department of the Youth Authority  
Herman G. Stark  
Youth Correctional Facility



Teresa Henry  
California Coastal Commission  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302

15180 South Euclid Avenue  
Chino, CA 91710  
(909) 606-5000, Ext. 2366  
(909) 606-5001 FAX  
jcastillo@cya.ca.gov

Jimi Castillo  
Native American  
Spiritual Leader

Fax: (562) 590-5084

March 20, 2005.

Dear Ms. Henry

I am writing this letter to express my concern for the Bolsa Chica area known as ORA-83. This has been a part of the Annual Ancestor Walk for the past eight years. We will continue to visit this place not in protest but in a prayerful manner to remember who we are and our responsibilities as caretakers to the land. This land is sacred to our indigenous communities as we recognize that it is the place of our ancestors. As the cogstone site it carries importance:

My first choice would be total preservation as the land is sacred. Our communities need to have open space that is not paved to visit, pray, hold ceremonies and renew our connection to the land. This is part of our heritage. I am saddened at the destruction that has occurred in this area at the hands of Hearthsides Homes and their supporters.

I support the California Coastal Commission staff recommendations for a 100 meter set back providing more open space. Additionally, I would like to see signage and displays that pay tribute to the incredible history that once was held by this special place.

Ompaloov,

Jimi Castillo  
Tongva-Acjachemem Nations  
Native American Spiritual Advisor  
Ancestor Walk Leader

5-05-020  
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# CALIFORNIA STATE UNIVERSITY, LONG BEACH

## DEPARTMENT OF ANTHROPOLOGY

March 23, 2005.

Ms. Teresa Henry  
California Coastal Commission  
200 Oceangate, Suite 1000  
Long Beach, CA 90802-4302  
Fax: (562) 590-5084

Dear Ms. Henry

I am writing to ask for further protection of the upper mesa at Bolsa Chica known as ORA-83. This site has importance to many people of the area but especially to the indigenous Californians. It is a culturally significant archeological site that has twice been nominated for the National Registry of Historic Places. It qualifies in many areas: "pre-history" of early inhabitants, WW II activity, hunting club, etc.

Please support the Coastal Commission staff recommendations for the greatest open space possible. I also would like to see signs and interpretive information that is dedicated to the unique cultural history highlighting the diversity of California's people, specifically honoring these early ancestors and facilitating educational information for all.

I ask this primarily as an anthropologist who has worked closely with local Native Americans to preserve the creation center of Puvungna on the Cal State Long Beach campus. Also, I am a runner and run at Bolsa Chica two or three times a week. As far as I know, it is the only place between Palo Verde and Newport Back Bay where one can run more than a mile or two on dirt trails. Preserving these trails is a must; kkeexpanding them would be wonderful!

Bolsa Chica is a jewel. We have plenty of residential developments in our area, but very little open space. Please do everything you can to save as much as possible. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Eugene E. Ruyle", is written over a horizontal line.

Eugene E. Ruyle  
Professor Emeritus of Anthropology  
Home Address: 318 Orizaba Avenue  
Long Beach, CA 90814

Home telephone: 562 438-6505

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EX. 23  
p. 1 of 1

**Joseph A. & Sharon L. Jeffrey**

19371 Maidstone Ln.  
Huntington Beach, CA 92648  
714/536-2780  
jjeffrey@socal.rr.com

Wednesday, March 16, 2005

California Coastal Commission  
200 Oceangate Blvd.  
Long Beach, CA 90802-4416  
Attn: Ms. Teresa Henry, Commission Members

Re: Brightwater Project

Dear Commissioners:

Enough is Enough!

We have looked forward to the **development** of the Bolsa Chica for over 32 years. We were told by the sales manager, that sold us our first Huntington Beach home, that plans were being developed to build homes, a marina an outlet to the ocean, shops, restaurants and schools on the property. It was identified as being grander than Huntington Harbor. We thought it was a great and bought a home

Over the years, we have watched the project fought over and scaled back from over 5,700 homes and a Marina to less than 400 homes—and now you are being asked to not allow even that number.

Over the years, we have seen the Commission consistently change the rules and requirements for the landowner to build on this land. Every roadblock possible has been put into place. The Landowner has complied with all of the requirements of the Commission only to have new ones established. When will you stop this nonsense, play fair with the Landowner and give the go-ahead for this important project?

It is my understanding that the current Brightwater plan fully complies with the Commissions instructions of last November. Why are new requirements, suddenly brought into play? This is not fair to the landowner, the project and the citizens who are being denied the opportunity to purchase homes in this development.

We question the motivation and objectivity of your staff members who continually find new reasons for delaying (denying?) their approval of the project; each time the Landowner complies with the Commissions requirements.

With a sense of fairness in mind, we are asking you to do the fair and equitable thing and approve the Bright water housing development

Sincerely,



(for) Sharon L. & Joseph A. Jeffrey

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South Coast Region

MAR 21 2005

CALIFORNIA  
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EX. 24

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MAR 18 2005

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COASTAL C.

March 17, 2005

Teresa Henry, District Manager  
California Coastal Commission  
200 OceanGate, 10<sup>th</sup> Floor  
Long Beach, CA 90802-4416

Dear Ms Henry,

I have lived near the Bolsa Chica Wetlands in Huntington Beach for 34 years. When I moved here, I heard all the talk of the development to come to the wetlands. We were to get thousands of houses and a marina. The surrounding area would be jammed with traffic and there would be no place for the animals and plants to live.

Well, thank goodness that did not happen. Over the years I have seen many plans for the area come and go, but I think now the time has finally come to allow Hearthsides homes to proceed with their plans. They have applied for a minimal number of homes, I believe 375 or so, and have agreed to accomplish much of the wetland restoration.

I would hate to see the wetlands put in jeopardy once again if Hearthsides were to pull out. It seems to me that if they are required to cut back their building plans much more, the project will not be financially feasible for them. I hope the Coastal Commission will conclude that the plans before them are the best for all parties and I will finally get to see the Bolsa Chica in all its natural glory.

Sincerely,



Judy Bailey  
5422 Glenroy Drive  
Huntington Beach, CA 92649

5-05-020  
EX. 25

March 17, 2005

Meg Caldwell, Chair  
California Coastal Commission  
45 Fremont Street, ste.2000  
San Francisco, CA 94150-2219

Dear Ms Caldwell,

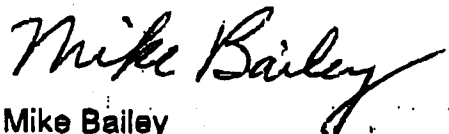
Shortly after I bought my house in Huntington Beach in 1971, the owners of the acreage known as The Bolsa Chica (TBC) applied to the City for the construction of about 5,700 homes. As I recall, the City pressured the owners to reduce that number by nearly one half.

TBC was sold to The Koll Company who was told to reduce the number of units down to about 1,200. After fighting everybody, they eventually gave up and turned TBC over to Hearthside Homes. I understand that the current plan calls for less than 350 homes, five thousand three hundred fifty less houses than originally planned. I repeat, 5,350 LESS HOUSES!!

I have wanted to buy a home in TBC for over thirty (30) years. Now, as a direct result of government interference I may not be able to afford one! The government (including the CCC) has screwed me. I am not alone.

Government has cost the property owners hundreds of millions of dollars. And it has cost me a home. Can you tell me who is going to reimburse us?

Approve TBC now.



Mike Bailey  
5422 Glenroy Dr.  
Huntington Beach, CA 92649

CC: Teresa Henry

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South Coast Region

MAR 21 2005

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South Coast Region

MAR 21 2005

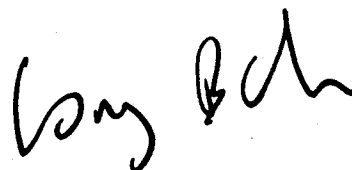
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MAR 18 2005

CALIFORNIA  
COASTAL COMMISSION

March 17, 2005

Meg Caldwell, Chair  
California Coastal Commission  
45 Fremont Street  
San Francisco, CA 94150-2219



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Sincerely,



Judy Bailey  
5422 Glenroy Drive  
Huntington Beach, CA 92649

5-05-020  
Ex. 27